

June 2005

DEPTFORD CENTER



Proposed Shuttle Bus Study



Delaware Valley
Regional Planning
Commission

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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.

TABLE OF CONTENTS

1.0	EXECUTIVE SUMMARY	1
2.0	PURPOSE	3
3.0	STUDY AREA DESCRIPTION	5
3.1	Land Use	5
3.2	Demographic Profile	5
4.0	HIGHWAY NETWORK.....	21
4.1	Traffic Volumes	22
4.2	Traffic Crash Statistics.....	27
5.0	PEDESTRIAN FACILITIES AND AMENITIES.....	31
6.0	SHUTTLE BUS NETWORK	33
7.0	SURVEY OF TRANSIT NEED	39
7.1	Potential Riders by Income and Municipality.....	41
8.0	IMPLEMENTATION PLAN	45

LIST OF MAPS

1.	Regional Setting.....	7
2.	2000 Land Use.....	9
3.	Journey-to-Work: Transit Trips.....	15
4.	Journey-to-Work: Bike, Walk and Taxi Trips	17
5.	Journey-to-Work: Carpool Trips	19
6.	Highway Network	23
7.	2004 Traffic Volumes	25
8.	2001-2003 Crash Locations	29
9.	Proposed Shuttle Bus Route	35

LIST OF TABLES

1.	Deptford Retail Centers.....	11
2.	Gloucester County MCD Population Forecast	12
3.	Gloucester County MCD Jobs Forecast	12
4.	Journey-to-Work by Mode to Study Area.....	14
5.	Primary Crash Locations	28
6.	Proposed Shuttle Schedule.....	37
7.	Aware of Public Transit Service in Area	39
8.	Have Used Public Transit.....	39
9.	Would Use a Shuttle Bus to Travel to the Area	40

LIST OF TABLES (Continued)

10.	Would Use a Shuttle Bus to Travel within the Area	40
11.	Home Municipality for Respondents Who Would Use Shuttle to the Area	42
12.	Home Municipality for Respondents Who Would Use Shuttle within the Area	42

LIST OF FIGURES

1.	Aware of Public Transit	39
2.	Would You Use a Shuttle Bus to Travel to this Area?	41
3.	Would You Use a Shuttle Bus to Travel within this Area?	41
4.	Would You Use a Shuttle Bus to Travel to or within this Area?	43
5.	Would You Use a Shuttle Bus to Travel to or within this Area?	43

APPENDIX

1.	2004 Traffic Counts.....	A1
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1.0 EXECUTIVE SUMMARY

This study examines the feasibility of initiating a shuttle bus system that would primarily facilitate the movement of customers in the Deptford retail area from one shopping center to the next. The primary goal of which is to reduce the number of multiple-automobile trips in the area. A secondary impact of a shuttle bus is to provide access to the retail employment center for the transit dependent population.

The center of retail activity is the Deptford Mall. This is surrounded by several shopping centers within a half-mile of the mall. The outer ring of the commercial center consists of neighborhoods of single-family homes.

Retail clusters in the study area were surveyed and means of access and egress documented. The road network was evaluated to identify areas where there could be improvements to the internal traffic circulation. In particular the feasibility of access alternatives such as implementing an internal circulator bus to transport shoppers between shopping centers was analyzed. The route planning process and operational logistics can be used as a model that is transferable to other major retail centers in the region.

The analysis showed that given the potential service area it is possible to run 15-minute headways on two routes with one vehicle for each route. The Deptford Center Mall would serve as the hub for shuttle service.

It is recommended that a mix of strategies, coordinated land use, and appropriate complementary policies should be included in the scenario for an effective shuttle network. Coordination with NJ TRANSIT bus routes that already serve the area as well as exploring the

feasibility of modifying existing routes to better serve the market is recommended.

In the Deptford retail area, pedestrian amenities such as sidewalks and crosswalks are for the most part absent. This has resulted in an environment that is not conducive for pedestrian activity. Except for very limited bus service, the automobile is therefore the predominant form of transportation in the area. Pedestrian-oriented improvements to the area have been identified. These include: linkage between major developments with safe, practical access points; creation of clearly marked crosswalks with a pedestrian-actuated signal phase; and sidewalks that are protected from the street at entry points, and clearly lead to building entrances.

2.0 PURPOSE

This is a transportation study of the regional retail center in the Deptford Mall area of Deptford Township, Gloucester County.

Gloucester County and Deptford Township seek to improve access and circulation to and within the retail area.

This study develops and assesses conceptual improvement alternatives, the results of which will help to facilitate pedestrian, and transit activity, as well as reduce congestion and improve mobility in the area.

The Deptford Mall area, similar to a number of regional retail shopping centers in the Delaware Valley region, has experienced significant retail growth in its environs since it was first built in the 1970s. This growth has included big box retail development, satellite shopping centers, and highway strip commercial areas, combining to create a major regional retail center. This growth has brought a significant amount of traffic congestion. While much of this congestion is generated by a large number of shoppers traveling to the retail center area, it has been exacerbated by significant traffic generated by shoppers making multiple auto trips to various shopping destinations once they are within the area.

This transportation study's focus is to improve accessibility within the retail center by reducing the number of internal auto trips by shoppers. To this end, the feasibility of alternative transportation modes to the single-occupant vehicle was explored. In addition, the adequacy of vehicular and pedestrian transportation networks was analyzed in an effort to improve their efficiency.

3.0 STUDY AREA DESCRIPTION

Deptford Township is located in the northeastern corner of Gloucester County. It is within 5 miles of South Philadelphia and 10 miles of Camden, Cherry Hill and Woodbury (**Map 1**). The study area, which is approximately 4.5 square miles, is located in the northeastern section of the township. It generally extends from Delsea Drive Cooper Street, Hurffville Road, the area to the north of Clements Bridge Road to the New Jersey Turnpike. This is the retail center of the township and of the county. It is arguably the premier shopping destination in all of Southern New Jersey. This area is served by interstate highways (I-295 and NJ Turnpike), several state highways (NJ 41, NJ 42, NJ 55), several county highways (CR 544, CR 621, CR 706, and CR 534) and numerous local highways. The study area is centered at the confluence of three state highways in the area, NJ 41, NJ 42 and NJ 55, which provide region-wide access. The area is primarily retail commercial with single-family residential development on the periphery. At the heart of the retail area is Deptford Mall.

3.1 Land Use

The core of the study area is primarily retail commercial surrounded by residential dwellings.

As can be seen from **Map 2**, wooded areas, single-family residential areas and more recent pockets of multi-family development ring the retail center. The center of the retail activity is the Deptford Mall. This is surrounded by several shopping centers within a half-mile of the mall. To the south and west of the commercial center there are neighborhoods of single-family homes. To the east of the retail center, the Big

Timber Creek and associated wetlands provide a natural barrier.

There are 8 distinct shopping centers in and around the Deptford retail area as well as several other retail commercial establishments along the major highways (**Table 1**).

These 8 shopping centers cover a total of 329 acres and have parking for more than 7,750 vehicles. They contain more than 231 stores with a total Gross Lease Area (GLA) of more than 2,615,188 square feet.

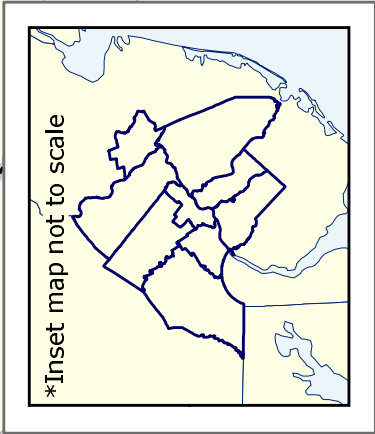
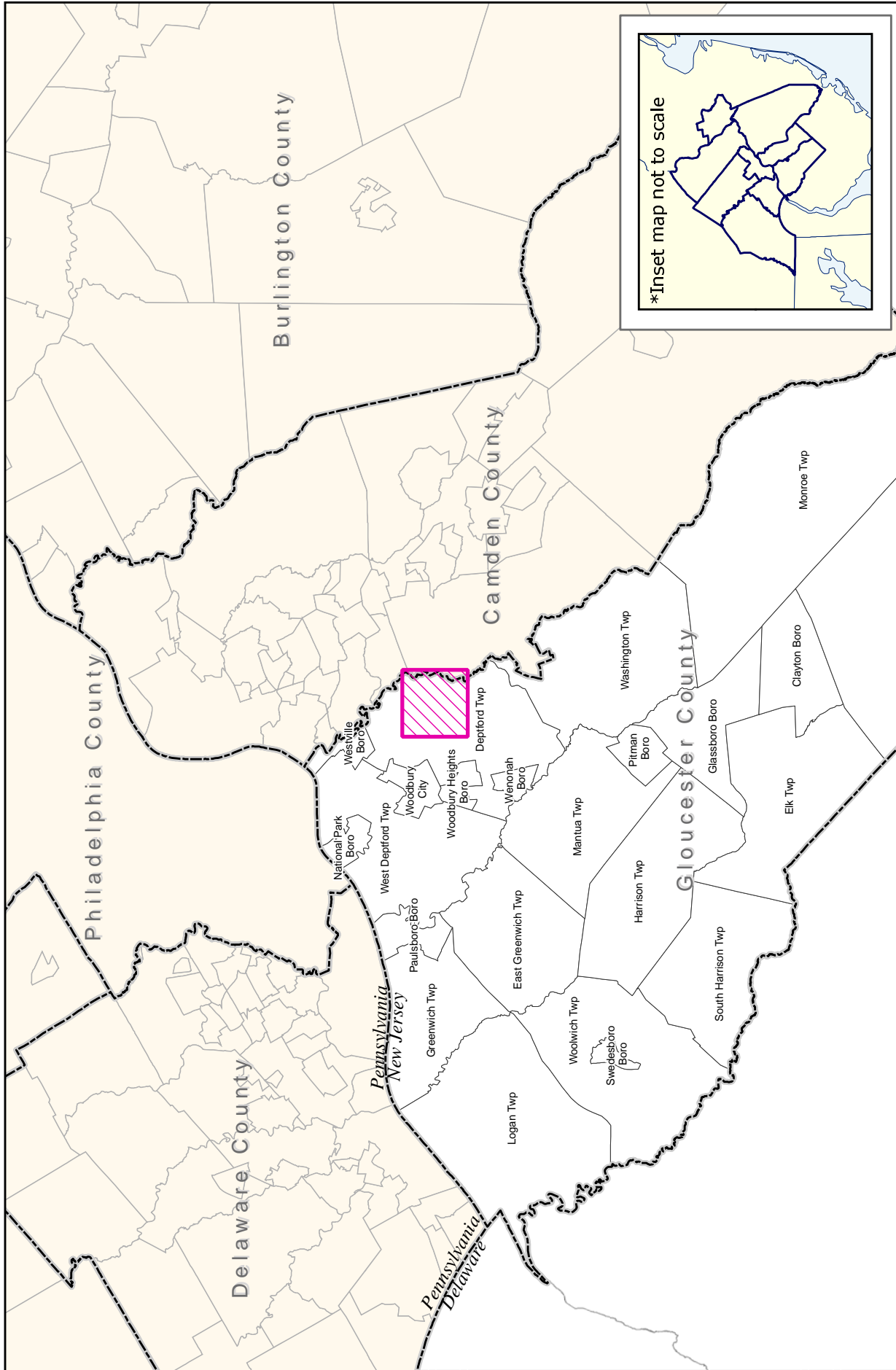
Because scheduled bus service to this area is infrequent, the primary means of conveyance is the automobile. As a result, a large land area is dedicated to parking for shoppers and employees of the retail establishment.

3.2 Demographic Profile

Population Forecast

The populations of Gloucester County and Deptford Township are expected to increase over the next 20 years. In 2000, the Census recorded a population of 26,763 for Deptford Township (**Table 2**). This number is expected to grow modestly by 5% to 28,040 by 2010, and 10% to 29,460 by 2025. Gloucester County as a whole is forecasted to grow significantly faster than Deptford Township during this time, including 10% growth between 2000 and 2010, from 254,673 to 278,960, and 27% growth between 2000 and 2025, with an expected 2025 population of 322,520. The population of the study area¹ in 2000 was approximately 9,420.

¹ The study area consists of four Travel Analysis Zones located within Deptford Township, 1254, 1371, 1373, and 1896, as defined by the Census Transport Planning Package.



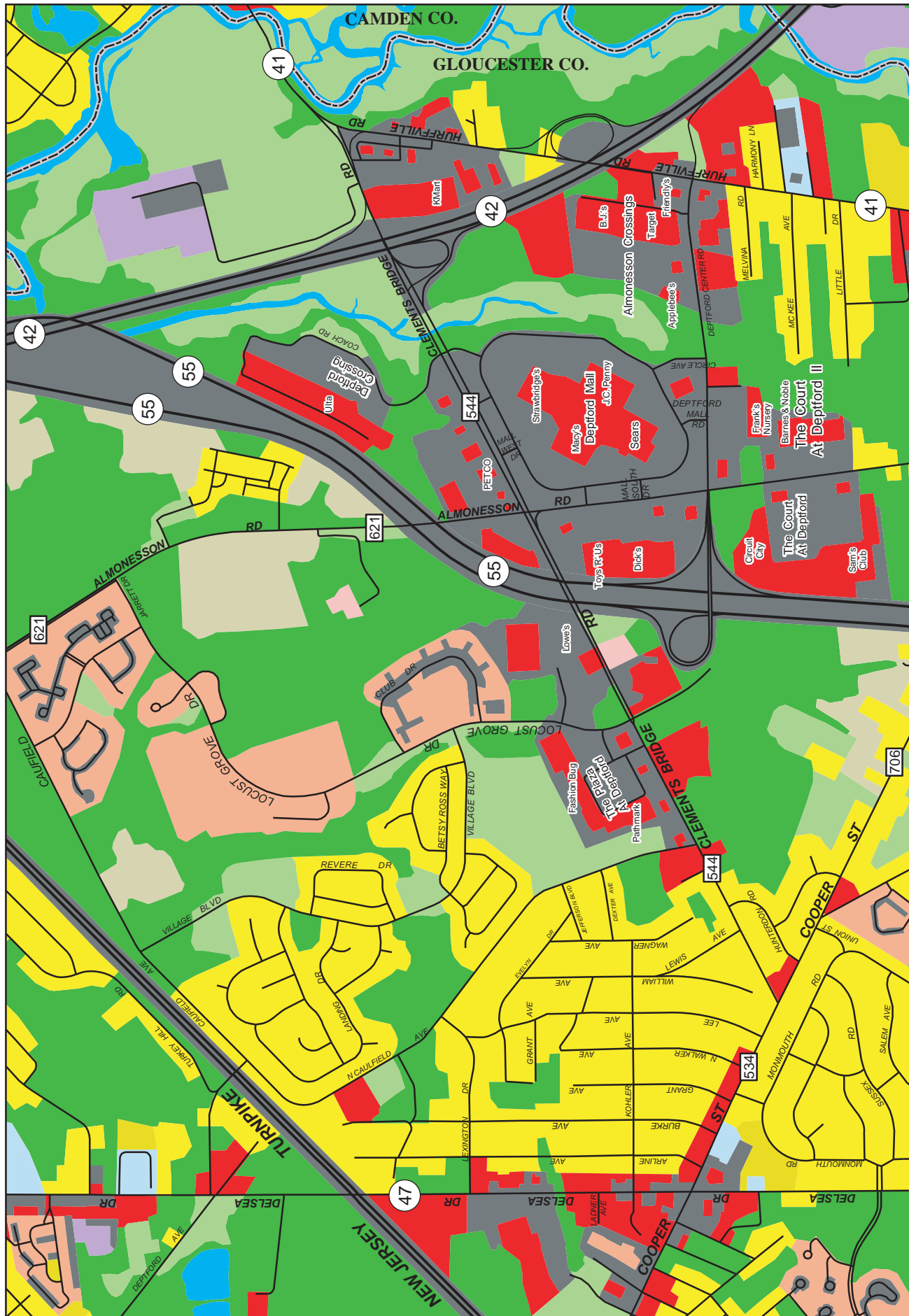
DEPTFORD CENTER PROPOSED SHUTTLE BUS STUDY - Regional Setting



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MAP : 1





DEPTFORD CENTER PROPOSED SHUTTLE BUS STUDY - 2000 Land Use

MAP : 2

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- Residential: Single-Family
- Residential: Multi-Family
- Transportation And Parking
- Wooded
- Vacant
- Water
- Recreation
- Utility
- Commercial
- Manufacturing
- Agriculture
- Community Services

Table 1: Deptford Retail Centers

NAME	TYPE	INTERSECTION	ACRES	LEVELS	NUMBER OF STORES	PARKING	YEAR OPENED	TYPE	GLA (Sq. Ft.)
Almonesson Crossings	Community	Route 41 and Deptford Center Road	N/A	1	N/A	N/A	2000	Strip Center	202,500
The Court at Deptford I	Regional	Almonesson Rd & Deptford Center Rd	50	1	27	N/A	1991	Strip Center	362,301
The Court at Deptford II	Community	Route 55 and Deptford Center Road	17	1	7	N/A	1998	Strip Center	145,081
Deptford Crossing	Community	Clements Bridge Road and Route 42	72	1	21	1,058	1991	Strip Center	202,000
Deptford Mall	Super Regional	Rt 42 & Rt 55 & Clements Bridge Rd	115	2	141	5,500	1975	Mall	1,193,971
Deptford Plaza	Community	Clements Bridge Road and Jarrett Road	25	1	N/A	1,200	1988	Strip Center	225,000
Deptford Center	Community	Route 47 and Cooper Avenue	50	1	19	N/A	N/A	Strip Center	235,000
Locust Grove Plaza	Neighborhood	N/A	N/A	1	16	N/A	1987	Strip Center	49,335
		Total	329		231	7,758			2,615,188

Source: Shopping Center Directory, 2004 - National Resource Bureau

Table 2: Gloucester County MCD Population Forecast

			Change from 2000								
Municipality	Census 2000	2005	%	2010	%	2015	%	2020	%	2025	%
Deptford Twp.	26,763	27,420	2%	28,040	5%	28,540	7%	29,100	9%	29,460	10%
Gloucester Co.	254,673	265,500	4%	278,960	10%	292,940	15%	308,330	21%	322,520	27%

Jobs Forecast

The number of jobs in both Deptford Township and all of Gloucester County is increasing (**Table 3**). Deptford Township had 12,508 jobs in 2000. This number is expected to grow by 10% between 2000 and 2010, to 13,813 jobs, and by 14% between 2000 and 2025, with 14,208 jobs expected in 2025. The

number of jobs in Gloucester County is growing significantly faster than in Deptford Township, with 15% growth expected from 2000 to 2010, with 114,452 jobs expected in 2010, up from 99,467 jobs in 2000, and 30% growth from 2000 to 2025, with 129,168 jobs expected by 2025. The study area had approximately 6,953 jobs in 2000.²

Table 3: Gloucester County MCD Jobs Forecast

			Change from 2000								
Municipality	Census 2000	2005	%	2010	%	2015	%	2020	%	2025	%
Deptford Twp.	12,508	13,111	5%	13,713	10%	14,015	12%	14,114	13%	14,208	14%
Gloucester Co.	99,467	104,142	5%	114,452	15%	119,124	20%	123,485	24%	129,168	30%

² This number may be low because the CTPP only counts primary employment for people with multiple jobs. That is, if someone employed in Deptford have 'primary' employment elsewhere, their job in Deptford is not counted.

Journey-to-Work

The 2000 census Journey-to-Work (JTW) data was analyzed to determine the potential of the proposed shuttle to serve employees in the area. **Table 4** illustrates trips by mode from municipalities in Gloucester and Camden County to the study area in Deptford Township. As can be seen from **Table 4**, specific data on Single-Occupancy Vehicles (SOVs) were not analyzed for travel specifically to the study area. It is assumed that people driving to work alone from outside of the shuttle service area are not a part of the target market for such a service. SOV trips were evenly distributed throughout the region and were not concentrated in any particular area.

Transit service to Deptford retail area is limited to NJ TRANSIT bus routes 400 and 455. JTW trips via transit are thus clustered primarily around these two routes (**Map 3**). Trips on the Route 400 are clustered in Camden, Collingswood, Woodlynne and in Gloucester Township. Trips on Route 455 are clustered in Paulsboro, Woodbury, and at the intersection of Routes 455 and 400 intersect in Runnemede.

Trips to Deptford retail area by bicycle, on foot, or by taxi are grouped together by the census. Nearly all of these trips originate within Deptford itself or within an adjacent municipality (**Map 4**). There are a handful of trips that originate outside a 3-mile radius of the Deptford Mall. It is possible that a good number of these trips are a combination of modes. People may carpool or take a bus from their point of origin to a second location before biking or walking the rest of the way to their destination.

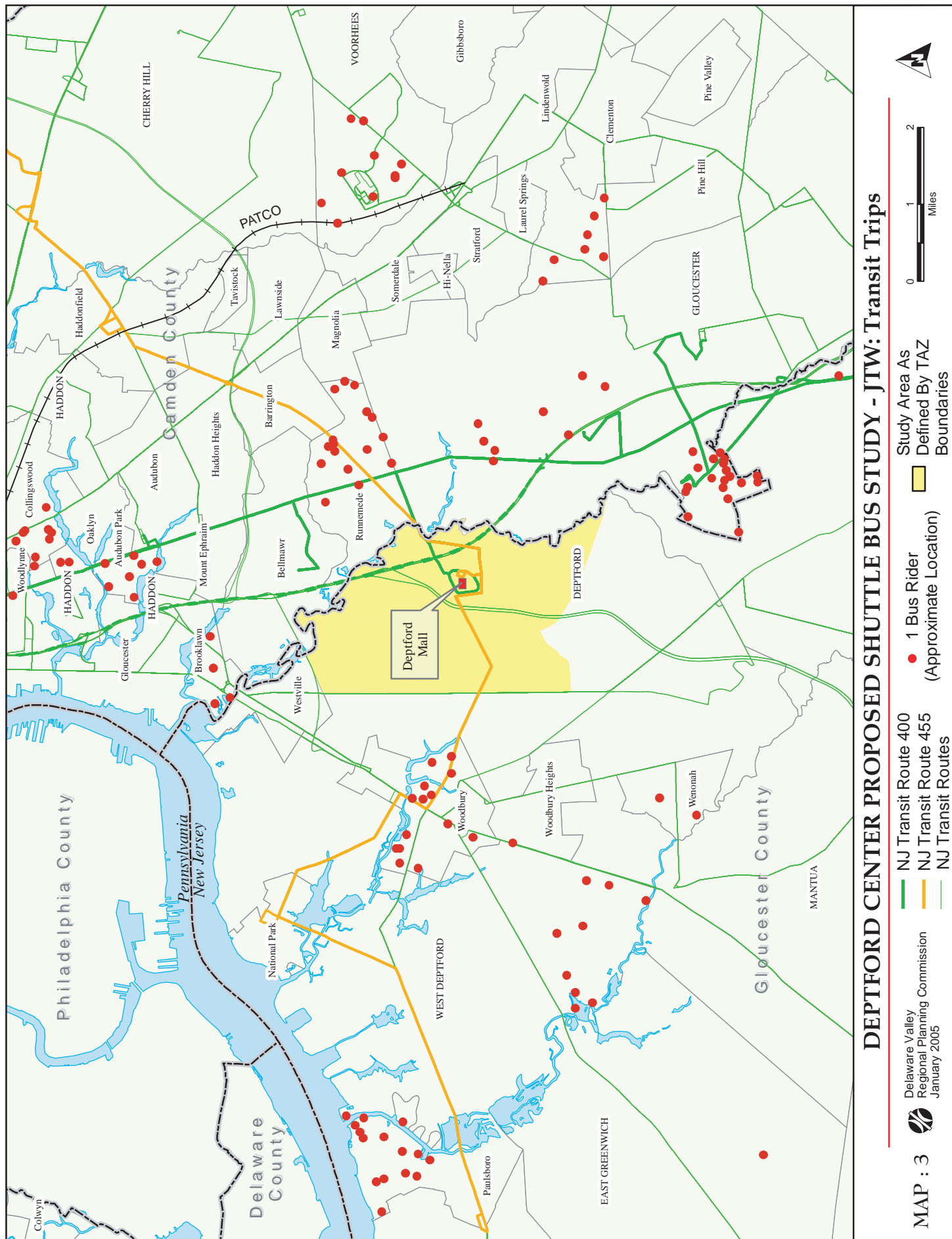
Carpooling to Deptford retail area is also concentrated in adjacent municipalities and within Deptford Township itself (**Map 5**). While carpooling is traditionally thought of as two or more people riding

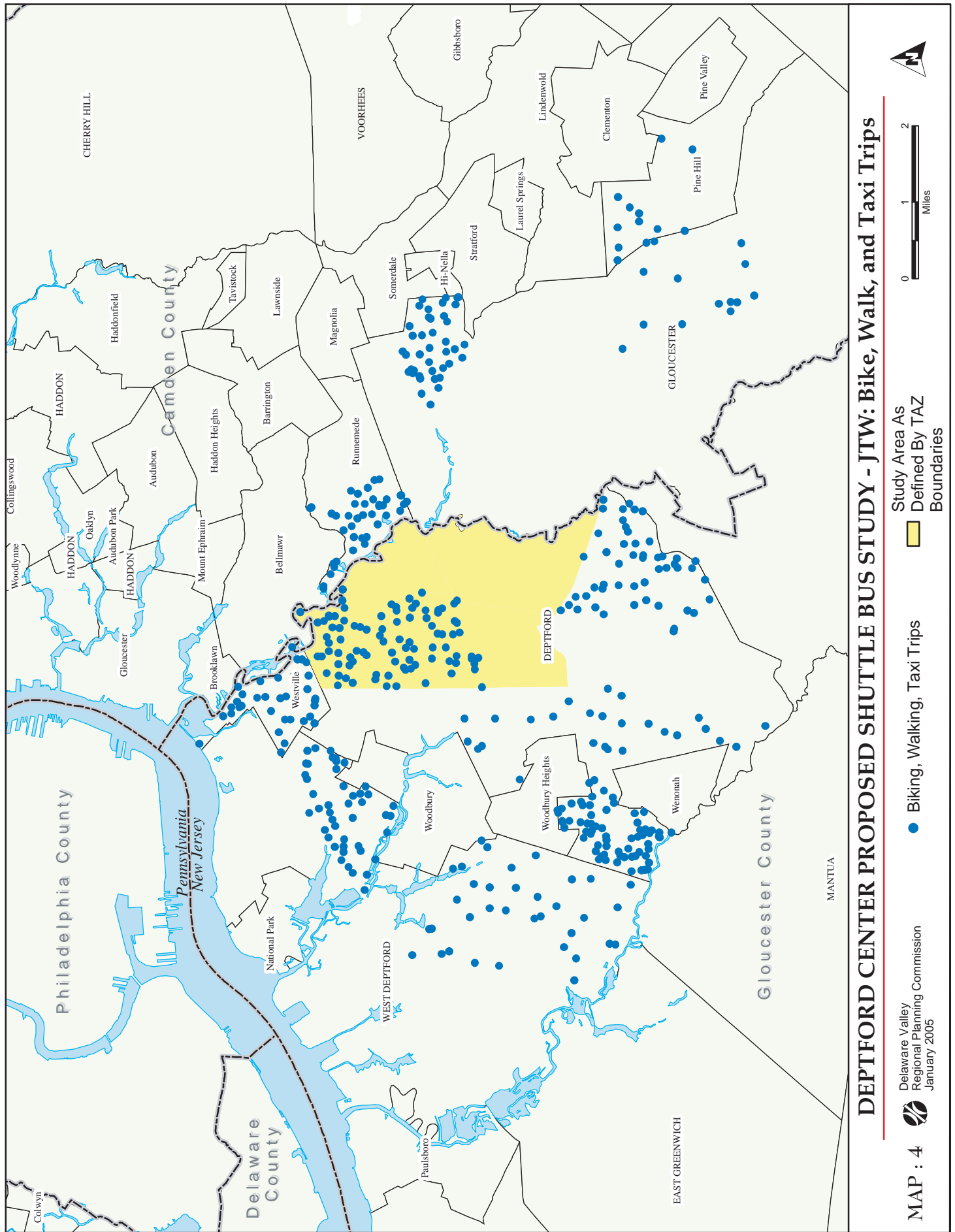
together to the same destination, it can also mean “getting a ride” or “being dropped off”. It is thus difficult to determine how many people are actually riding together with Deptford retail area as the final destination. There are people who may just be passengers in a car that is either destined for a place outside of the area or is returning to its point of origin.

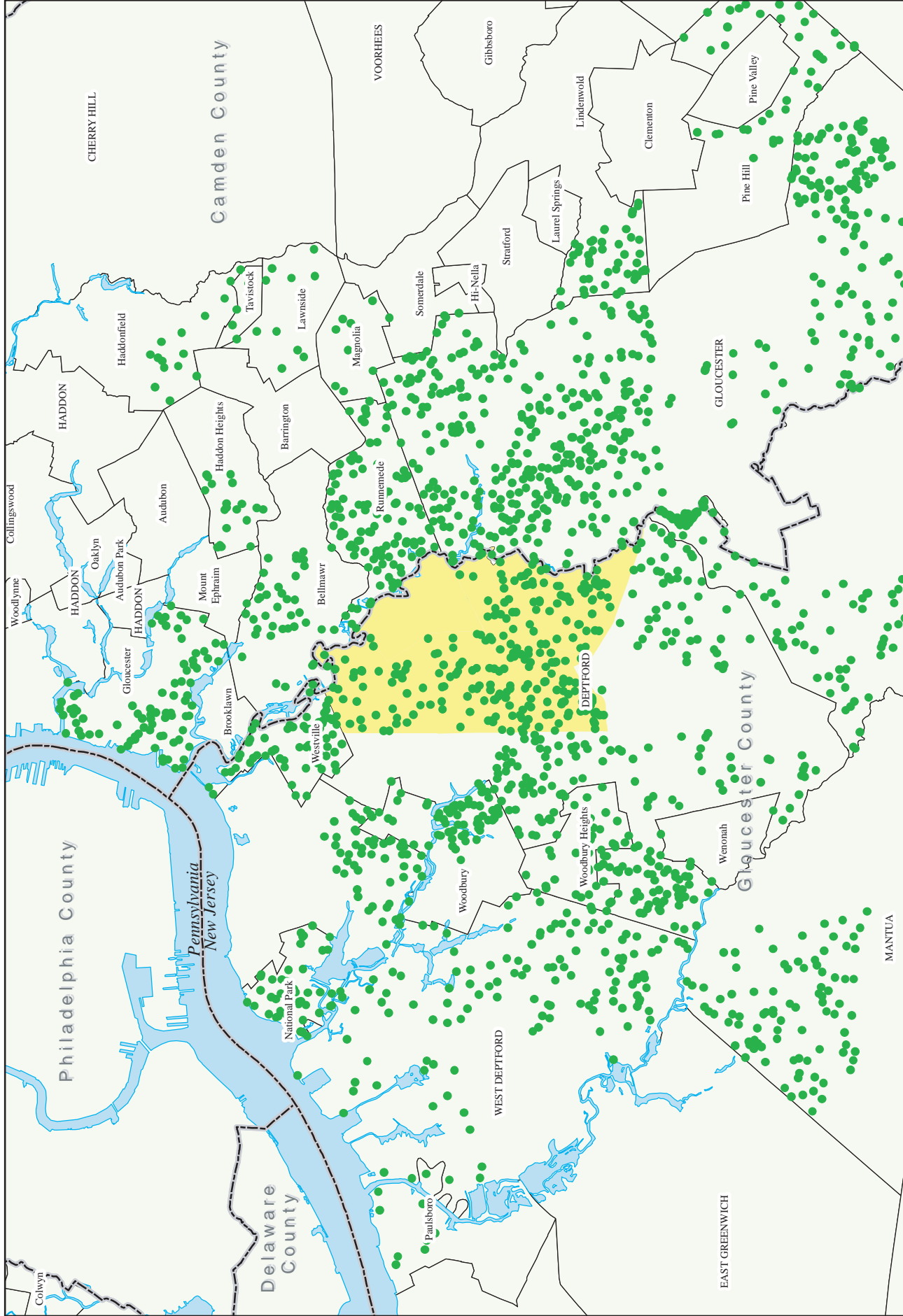
Table 4: 2000 Journey-To-Work by Mode to Study Area

Municipality	Total Worker	Drove Alone	Carpool2	Carpool3 or More	Bus or Trolley Bus	Bicycle Walked Taxi
Deptford Township	1785	1232	163	26	15	138
Gloucester Township	1070	872	95	14	62	24
Washington Township	946	790	124	13	14	6
West Deptford Township	625	538	25	5	25	32
Mantua Township	475	463	13	0	0	0
Monroe Township	359	340	12	0	8	0
Glassboro Borough	330	272	35	0	12	6
Woodbury City	309	233	26	4	29	13
Pitman Borough	265	221	27	2	13	4
Gloucester City City	230	172	42	0	9	5
Paulsboro Borough	219	145	30	0	38	7
Camden City	200	114	46	0	42	0
Lindenwold Borough	185	166	0	0	7	10
Franklin Township	170	144	15	0	5	7
Runnemede Borough	165	122	7	6	23	6
Winslow Township	160	131	28	0	0	0
Westville Borough	155	119	24	0	6	4
Harrison Township	149	144	10	0	0	0
Bellmawr Borough	145	118	26	0	0	0
Pine Hill Borough	145	113	19	0	0	12
East Greenwich Twp.	135	115	11	0	6	0
Cherry Hill Township	129	128	0	0	0	0
Greenwich Township	120	120	0	0	0	0
Clayton Borough	115	82	23	8	0	0
Woodbury Heights	115	115	0	0	0	0
Voorhees Township	105	95	0	0	10	0
National Park Borough	100	80	8	0	0	0
Barrington Borough	95	88	8	0	0	0
Elk Township	90	64	10	0	0	16
Wenonah Borough	79	68	9	0	2	0
Haddon Township	75	60	5	0	9	0
Pennsauken Twp	65	49	0	4	12	0
Collingswood Borough	60	48	0	0	11	0
Waterford Township	55	55	0	0	0	0
Magnolia Borough	50	43	8	0	0	0
Mount Ephraim Borough	50	52	0	0	0	0
Clementon Borough	45	44	0	0	0	0
Logan Township	45	41	0	0	0	0
South Harrison Township	45	43	0	0	0	4
Audubon Borough	40	36	0	4	0	0
Brooklawn Borough	30	27	0	0	4	0
Haddonfield Borough	30	24	7	0	0	0
Swedesboro Borough	30	0	0	0	0	
Haddon Heights	25	12	13	0	0	0
Stratford Borough	25	24	0	0	0	0
Woodlynne Borough	25	25	0	0	0	0
Berlin Borough	20	19	0	0	0	0
Lawnside Borough	20	7	12	0	3	0
Woolwich Township	20	0	6	0	3	
Audobon Park Borough	15	7	7	0	0	0
Laurel Springs Borough	15	16	0	0	0	0
Somerdale Borough	15	9	8	0	0	0
Gibbsboro Borough	10	9	0	0	0	0
Hi-Nella Borough	4	5	0	0	0	0
Oaklyn Borough	4	6	0	0	0	0

Source: 2000 Census







DEPTFORD CENTER PROPOSED SHUTTLE BUS STUDY - JTW: Carpool Trips



4.0 HIGHWAY NETWORK

A network of highways ranging from interstate highways to local roads has a direct impact on the study area (**Map 6**). The following is a brief description of the primary arteries within or providing direct access to the study area.

The New Jersey Turnpike is a major Interstate Highway to the northwest of the study area. It has an interchange in Runnemede, to the north of the study area, permitting access to northern and southern New Jersey.

Interstate 295 is a north-south highway located to the east of the study area. It is classified as a rural interstate. 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 NJ 42 and NJ 55.

NJ 41 (Hurffville Road) enters the study area from Runnemede in Camden County through to NJ 47. It generally has one lane in each direction with a posted speed limit of 45 – 50 MPH. An Average Annual Daily Trips (AADT) of 10,800 (northbound) and 11,000 (southbound) were recorded in 2004. This is the major truck route in the study area, with truck traffic accounting for approximately 18% of all traffic.

NJ 42, as it traverses the study area, is a six lane Urban Freeway/Expressway with a grass median and a posted speed limit of 55 MPH. An AADT was recorded in 2003 of 98,109 for both directions. This highway provides access to Camden and Philadelphia in the north and west. It also provides access to Atlantic City via the Atlantic City Expressway in the southeast.

NJ 55 is a four lane Urban Freeway/Expressway with a grass median. The posted speed limit is 65 MPH. In 2003, an AADT of 58,284 was

recorded for all lanes. This highway merges with NJ 42 and provides access to Philadelphia in the northwest. In the south, it provides direct access to Cumberland County.

CR 544 (Clements Bridge Road) is an Urban Principal Highway that provides direct access to the study area. An AADT of 15,950 (eastbound) and 15,300 (westbound) was recorded in 2004. The posted speed limit is 35 MPH for most of its extent in the study area. The number of travel lanes ranges from 3 to 5 lanes.

CR 534 & CR 706 (Cooper Street) is an Urban Minor Arterial with two travel lanes. In the eastern end it is CR 706 with a posted speed limit of 35 MPH while in the western end it is CR 534 with a posted speed limit of 35 MPH. It provides direct access to the municipal center from most of the study area. In 2004, AADT of 15,600 (westbound) and 13,800 (eastbound) was recorded on the segment of highway within the study area.

CR 621 (Almonesson Road) is a major north-south road that provides direct access to the center of the retail area. It has 2 lanes in each direction with a posted speed limit of 40 MPH in the northern section and 35 MPH in the southern section within the study area. This is a 2-lane road that expands to four lanes in the vicinity of the shopping centers.

Deptford Center Road is a connector road that links the NJ 55 ramps and NJ 41. It also provides indirect access to NJ 42. It is a major access road to several shopping centers in the area. In 2004, an AADT of 7,860 (eastbound) and 10,055 (westbound) was recorded on this road.

Locust Grove Drive is located in the northwestern section of the study area. It provides access to Clements Bridge Road from several new residential developments in the area.

Jarrett Drive is the northern extension of Locust Grove Drive. It provides access to Almonesson Road.

4.1 Traffic Volumes

High traffic volumes, particularly during peak shopping hours, are evident through the study area. However, there are several roadways where this problem is critical. In order to measure traffic volume and flow in the area, automatic traffic recorders (ATR) were placed at key locations in May and September of 2004. Hourly vehicle counts were collected over a 48-hour time period at these locations and tabulated to determine traffic direction and volumes (**Map 7**). The primary AM direction for traffic in the area is towards the major state highways, NJ 42 and NJ 55, then northbound to employment centers in New Jersey and Philadelphia, Pa. In the PM, the southbound direction predominates. Approximately 7 percent of traffic in the principal direction occurs in the AM or PM peak.

NJ 41

This stretch of highway in the study area is critical because it serves as the gateway to the retail area from areas to the east. Its proximity to the NJ 42 ramps also makes it an important access road for north-south traffic. This is the major truck route in the area with truck traffic in 2004 accounting for approximately 18% of all traffic on a typical weekday and 12% on weekends. AADT for the segment of NJ 41 within the study area averages 18,800 for the typical weekday, while on weekends, the AADT ranges from 19,800 on Saturday to 16,306 on Sunday. Peak

volumes are between 6:00am – 7:00am and 10:00am – 7:00pm weekdays, and 9:00am – 7:00pm weekends (See Appendix).

Deptford Center Road

This road provides direct access to and from NJ 55 and the shopping centers. In 2004, the AADT recorded on this road was 7,861. Because this is the heart of the retail area, peak traffic volume tends to mirror the peak shopping period, which, in this case is 11:00am – 8:00pm weekdays and 10:00am – 9:00pm weekends (See Appendix).

Clements Bridge Road (CR 544)

This is the primary east-west route in the area and is also the most highly traveled arterial with an AADT of 31,255 recorded in 2004. For eastbound weekday traffic, the AM peak hour is between 7:00am and 8:00am, which reflects home-based work trips. The westbound weekday traffic has no distinct AM peak. Traffic gradually builds throughout the day from about 6:00am. The overall peak period (both directions) extends from 11:00am through 10:00pm, reflecting shopping trips. Weekend peak period extends from 11:00am through 10:00pm (See Appendix).

Almonesson Road (CR 621)

This is the primary north-south arterial which serves the Deptford Mall and other large shopping centers. An AADT of 15,106 was recorded in 2004 just north of CR 544. The peak period for traffic in both directions is between 7:00am and 10:00pm weekdays and 10:00am and 10:00pm weekends (See Appendix).



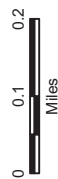
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Source: NJ Office of Information Technology

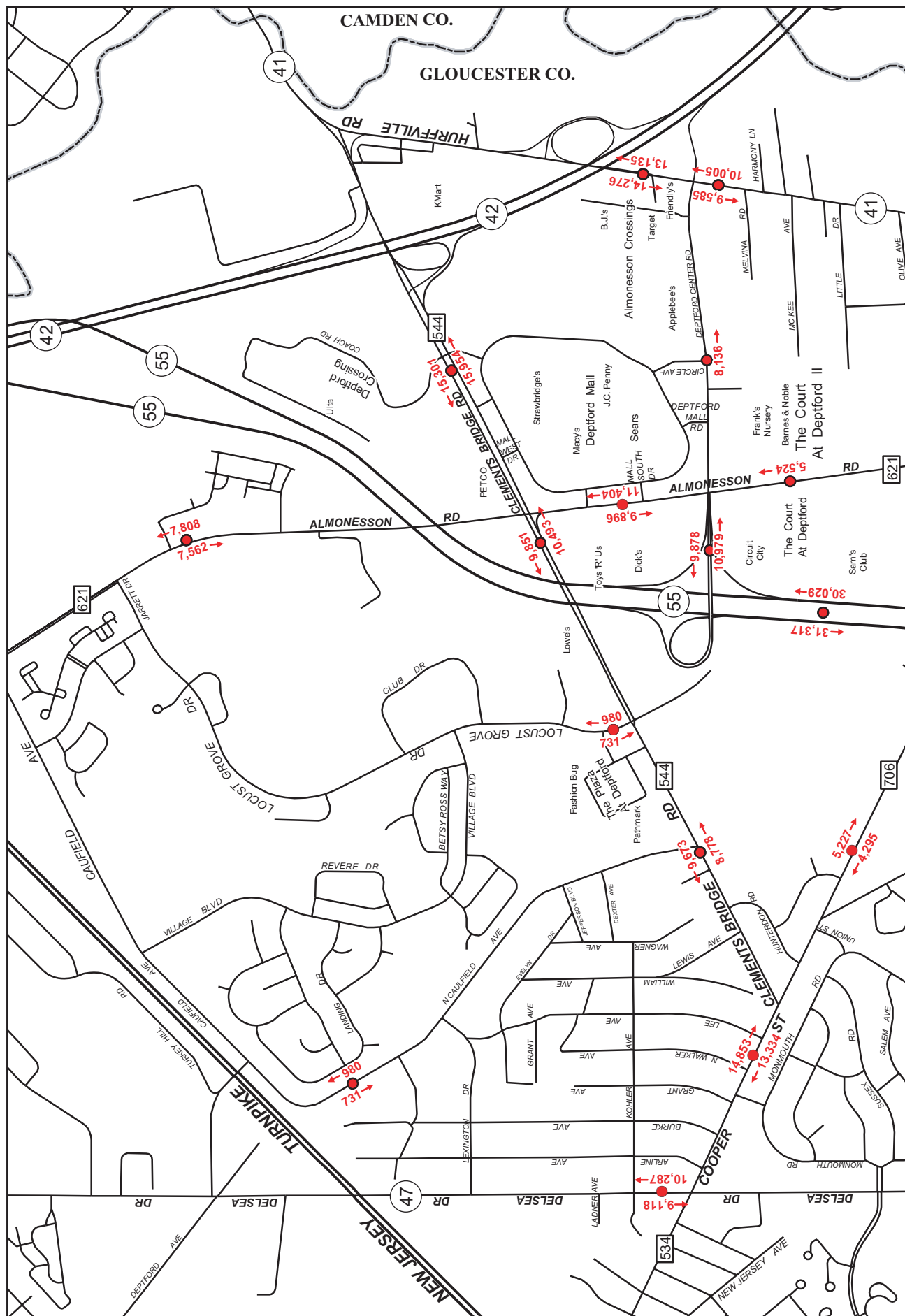
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MAP : 6





DEPTFORD CENTER PROPOSED SHUTTLE BUS STUDY - 2004 Traffic Volumes

MAP: 7 Delaware Valley
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- 2004 Traffic Volume Locations



4.2. Traffic Crash Statistics

Highway crashes within the study area are concentrated at major intersections and interchanges (**Map 8**). The majority of crashes are Same Direction Rear End crashes. Property Damage Only crashes exceeds injury crashes at all locations analyzed (**Table 5**).

An analysis of data over the period 2001 – 2003, reveals a concentration of crashes at the following locations:

1. NJ 42 at CR 544

There were 141 crashes occurring at this location, which includes a 525-foot segment of NJ 42 in the vicinity of CR 544. This location accounts for the highest number of crashes in the study area. 42 (30%) of these crashes occurred at or in the vicinity of the highway ramps.

A total of 37 (26%) crashes resulted in injury while 104 (74%) were Property Damage Only. Same Direction Rear End crashes accounted for the largest number of recorded crashes by direction with 43 (31%).

2. CR NJ 41 at NJ 42

A total of 22 crashes occurred on NJ 41 in the immediate vicinity of NJ 42 over the three year period. Two of these crashes had injury, one each in 2001 and 2002. Same Direction Rear End crashes accounted for the largest number of recorded crashes by direction with 4.

On NJ 42, within a distance of approximately 1,050 feet, a total of 50 crashes occurred in the vicinity of the ramps to NJ 41 over the three-year period. Two of these were fatal in 2001 while 17 (34%) were injury related. Same Direction Rear End crashes accounted for the largest number of recorded crashes by direction with 16 (32%).

3. NJ 41 at CR 544

At this location, there were a total of 36 crashes recorded over the three-year period. 15 (42%) of these crashes resulted in injury. Same Direction Rear End crashes accounted for the largest number of recorded crashes by direction with 14 (39%).

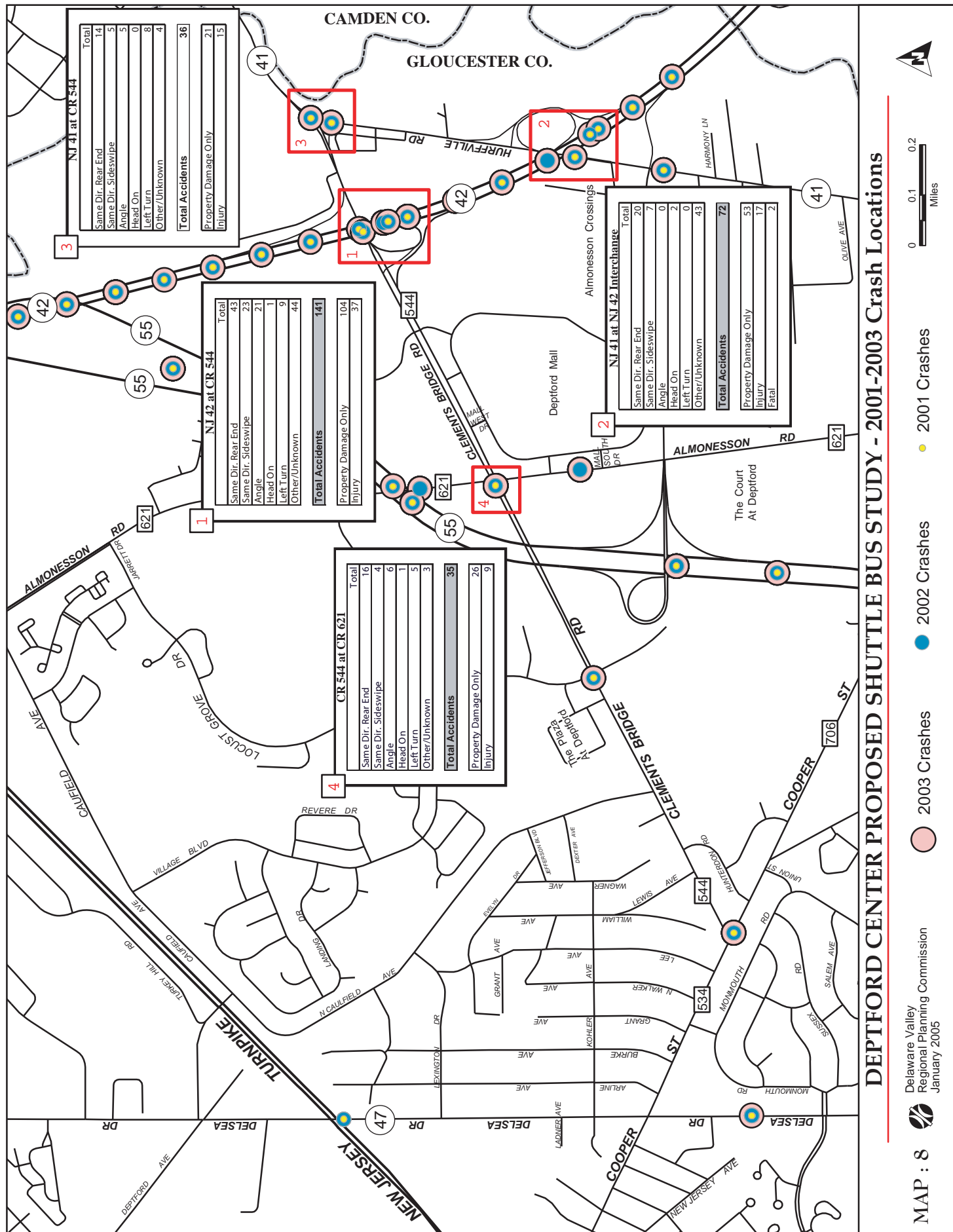
4. CR 544 at CR 621

At this location, 35 crashes occurred over the 3-year period of which 9 (26%) were injury crashes. There were 26 (75%) Property Damage Only crashes. Same Direction Rear End crashes were 16 (46%), the largest number of crashes by direction.

Table 5: Primary Crash Locations

Accident Type	CR 534 at CR 544	CR 544:Locust Grove to Mall Entrance	NJ 42 at CR 544	CR 621 at Deptford. Ctr.	CR 534 at CR 621	NJ 41 at CR 544	NJ 55 Nr. CR 621	NJ 41 at Deptford Ctr.	NJ 41 at CR 706	NJ 41 at NJ 42
Same Dir. Rear End	7	4	43	7	16	14	22	8	7	20
Same Dir. Sideswipe	1	0	23	1	4	5	3	1	3	7
Angle	0	2	21	1	6	5	0	3	5	0
Head On	2	2	1	1	1	0	0	2	0	2
Left Turn	6	1	9	3	5	8	0	3	4	0
Other/Unknown	1	2	44	2	3	4	8	1	2	43
Total Accidents	17	11	141	15	35	36	33	18	21	72
Property Damage Only	11	5	104	7	26	21	25	10	13	53
Injury	6	6	37	8	9	15	8	8	8	17
Fatality	0	0	0	0	0	0	0	0	0	2

Source: NJDOT



5.0. PEDESTRIAN FACILITIES AND AMENITIES

Pedestrian facilities and amenities encourage an alternative form of transportation that can result in a reduction in motor vehicle traffic on area highways. These facilities are critical links in the transportation network, by providing pedestrian access to the retail areas.

In the Deptford retail area, pedestrian amenities such as sidewalks and crosswalks are for the most part absent. This has resulted in an environment that is not conducive for pedestrian activity. This therefore creates a barrier between nearby residential areas and the retail area for the transit dependent population. Except for very limited bus service, the automobile is the only viable form of transportation in the area.

General Improvements

In order to make the Deptford Retail center more pedestrian friendly, several improvements would have to be made to the area. These facilities should conform to the following:

1. Where possible, there should be linkage between two major developments with safe, obvious access points.
2. Where possible, landscaped islands should be created to serve as 'refuge' for pedestrians.
3. Minimize the number of points at which pedestrian encounters traffic.
4. Clearly marked crosswalks with a pedestrian actuated signal phase.
5. The sidewalk should be protected from the street at entry points, and clearly lead to the building entrance.

6. Insert stop signs along certain driveways.
7. Use landscaped islands to prevent random movement of vehicles, creating hazardous pedestrian environment.
8. Transit stops and pedestrian drop-offs should be located within reasonable distance of building entrances (no more than 750 feet, preferably much closer).
9. Landscaping and fencing should not hinder pedestrian movement.
10. There should be pedestrian-scale lighting and landscaping.
11. Where possible consolidate auto entrances.
12. Improve safety at pedestrian crossings with traffic calming devices (e.g. different paving texture, speed humps, tighter corners).
13. Use curb cuts and ramps for the disabled.
14. Density for future development, should be increased by:
 - § Adding offices, shops, housing to the periphery
 - § Where possible orient buildings to pedestrians rather than to parking lots.

Specific locations for Pedestrian improvements in the Deptford Retail Center

In an effort to make the area more pedestrian friendly, several locations were identified for improvement.

1. The area in the vicinity of Deptford Mall Road connecting Sears Auto Center with the shopping center that includes the former Franks Nursery. A pedestrian crosswalk across

Deptford Center Road along with an extension of the existing walkway would provide pedestrians with a safe and direct access to both areas.

2. At the intersection of Mall West Drive and Clements Bridge Road. A pedestrian actuated crosswalk would permit shoppers to access the shops along Clements Bridge Road and the mall. Sidewalks should be constructed along Clements Bridge Road from the area extending from the driveway to Chili's Restaurant to the intersection of Almonesson Road. This would permit shoppers using stores along this section of highway to access these stores by foot in a safe and direct manner.
3. Deptford Center Road at the intersection connecting Best Buy with Almonesson Crossings shopping center should have a pedestrian crosswalk. This would facilitate safe pedestrian access to both retail centers.
4. Intersection connecting The Court at Deptford I and The Court at Deptford II should have a pedestrian crossing to facilitate shoppers to access both shopping centers by foot safely.
5. There should be a pedestrian crossing at Mall South Drive and Almonesson Road. This road connects Deptford Mall with Dicks Sporting Goods.

6.0 SHUTTLE BUS NETWORK

Background

In an effort to reduce congestion in the Deptford retail area, several transportation options that could have an immediate impact were considered. Pedestrian and bike alternatives alone would not provide the change in behavior needed to produce an immediate impact on traffic. The existing bus system does not provide the frequency of service nor have the flexibility to serve as an internal circulator in this area of high traffic volumes. The shuttle bus alternative seemed best capable to provide rapid relief. It incorporates elements from the other alternatives considered.

This proposed shuttle would serve three primary functions. Firstly, to provide an alternative to shoppers using their automobiles to make multiple stops at area shopping centers during the same trip. Secondly, to provide a means of transportation for current and potential workers in area retail establishments who are transit dependent. Finally, to provide a reliable means of transportation for senior citizens and the transit dependent population as a whole to shop at the retail centers at Deptford.

A successful shuttle operation could have an impact on reducing congestion in the area by removing an appreciable amount of vehicles from the traffic stream. Each passenger carried is potentially one less car on area roadways. The shuttle will also benefit area shoppers by meeting a need for local transit in the area. The economic vitality of the area will also be enhanced with the shuttle, as it will be bringing in more shoppers to the area, enabling seamless connectivity between stores that will result in increased sales. Finally, it permits the consolidation of

development near its route that would reduce the parking demand there due to a reduction in auto trips. This would therefore allow for an increase in the density and intensity of land use in the area.

Route Description

The proposed shuttle service is divided into two routes, Red and Blue (**Map 9**). The Red Route would serve the western portion of the study area and the Blue Route would serve the eastern end. NJ

Transit buses #400 and #455 now stop at the Deptford Center Mall, which is called the Mall Transfer Center. This would serve as the hub for shuttle service.

As a passenger would experience it, the Red Route leaves the NJT bus stop at the Mall Transfer Center and turns north towards Mall Drive East and Clements Bridge Road. It then crosses Clements Bridge Road onto Coach Road, to the Deptford Crossing Shopping Center.

- The first stop is in front of Ulta at Deptford Crossing
- The second stop is at Lowe's, off Clements Bridge Road
- The third stop is at Fashion Bug at Deptford Plaza
- The last outbound stop is at Pathmark at Deptford Plaza

On the return leg, the Red Route departs Deptford Plaza eastward to Almonesson Road via Clements Bridge Road and makes the following stops:

- Toys 'R' Us
- Dick's
- Circuit City at The Court at Deptford

- Sam's Club at The Court at Deptford
- Barnes & Noble at The Court at Deptford II
- Frank's Nursery

The Red Route then returns to the Mall Transfer Center. The Red Route shuttle is then renamed the Blue Route. The purpose of the change is to allow riders to access destinations along the Blue Route without having to transfer. The driver makes the appropriate change on the display sign and announcing to the riders that there is no need to transfer for Blue Route stops.

As the bus departs the Transfer Center as the Blue Route, it heads back to Clements Bridge Road, this time turning right (eastbound) and making the following stops:

- KMart
- Friendly's
- Target at Almonesson Crossings
- BJ's at Almonesson Crossings
- Applebee's at Almonesson Crossings

The shuttle then returns to the Mall Transfer Center via Circle Avenue.

In an effort to expand the service area and serve a wider market, both the blue and red routes are extended at various times throughout the day to accommodate this expected demand. This service would be extended along the Locust Grove – Jarrett Drive - Almonesson Road corridor for the Blue Route. This would provide service to the newly constructed high-density residential developments in the area. The Red Route would extend along Clements Bridge Road to Caulfield Avenue - Lexington Drive - Delsea Drive - Cooper Street and back to Clements Bridge Road. This extended route would provide service to the proposed retail development on Delsea Drive as

well as the Senior Citizens complex and Municipal complex near the intersection of Delsea Drive and Cooper Street.

Scheduling

Given the potential service area it is possible to run 15-minute headways on two routes with one vehicle for each route (**Table 6**). Shorter headways would require more vehicles and more drivers or a shorter route. The former would drastically increase the cost while the latter would limit ridership. 15-minute headways strikes a closer balance between the high-frequency service demanded by the otherwise motoring public and the cost constraints of a locally funded system.

The first shuttle should be timed to meet the first workers arriving at the mall via bus or carpool. It would be advantageous to have the shuttle maintain 15-minute headways at least until the mall opens at 10:00 AM. From 10:00 AM until 12:00 PM, the headways could drop to every twenty minutes as local traffic counts show a sharp drop in volume between 9:00 AM and Noon. During the lunch hour traffic picks up again and builds throughout the afternoon as second shift workers and shoppers begin arriving. A return to 15-minute headways at this point would attract more riders.

Extended service to the outlying areas on both the Blue Route and Red Route will add time to the schedule. Adjusting the schedule to accommodate the additional travel time could make this possible. Adequate staffing will also be needed to allow for required breaks.

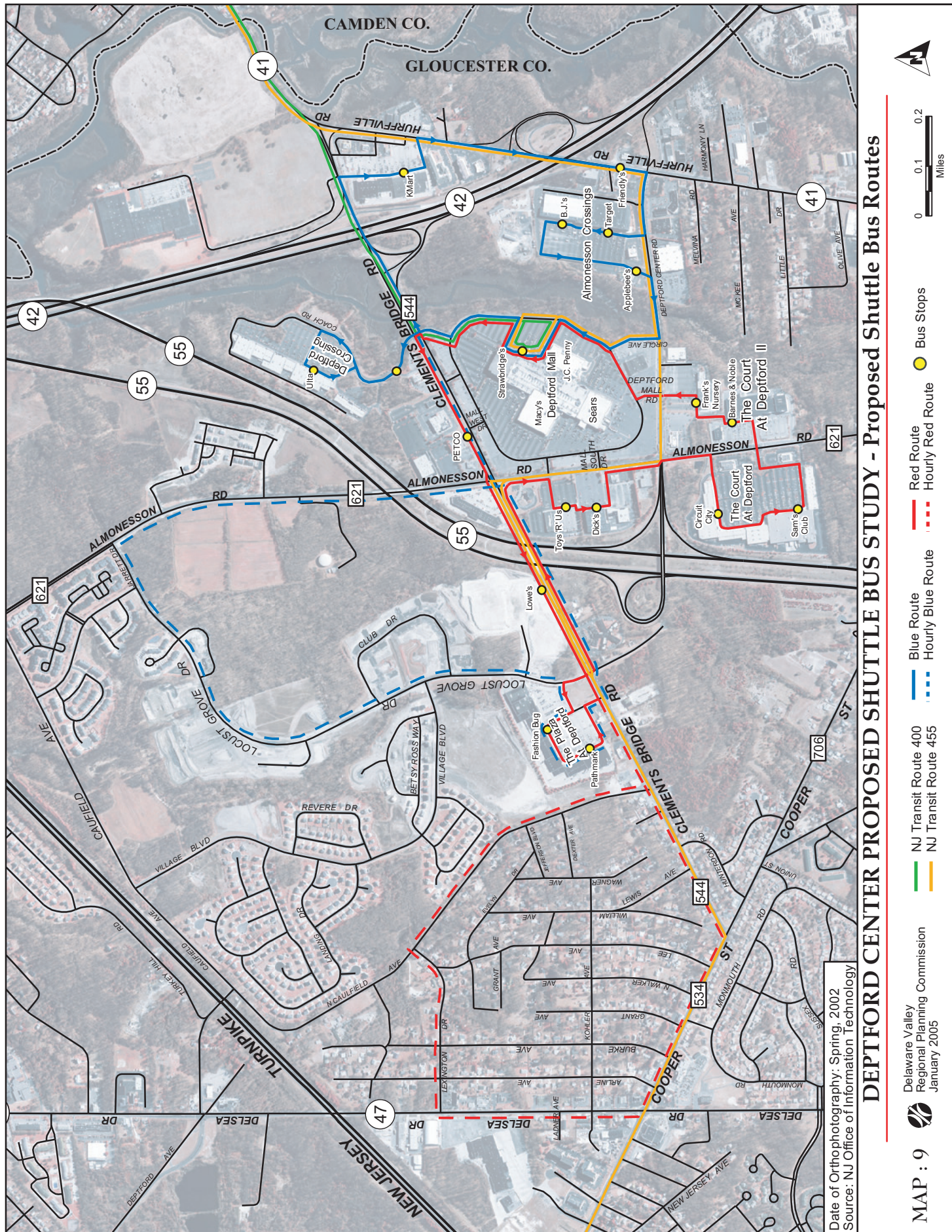


Table 6: Proposed Shuttle Schedule

		Target/B.J.'s	Ulta Fashion Bug/Pathmark				Circuit/City/Sam's Club	Barnes & Noble
Depart Mall	Kmart	Almon. X-ings	Mall	Dept. X-ing	The Plaza	Toys R Us	The Court	The Court II
8:05 AM	8:09 AM	8:13 AM	8:15 AM	8:19 AM	8:23 AM	8:27:00	8:29 AM	8:31 AM
8:40 AM	8:44 AM	8:48 AM	8:50 AM	8:54 AM	8:58 AM	9:02 AM	9:04 AM	9:06 AM
9:00 AM	9:04 AM	9:08 AM	9:10 AM	9:14 AM	9:18 AM	9:22 AM	9:24 AM	9:26 AM
9:15 AM	9:19 AM	9:23 AM	9:25 AM	9:29 AM	9:33 AM	9:37 AM	9:39 AM	9:41 AM
9:30 AM	9:34 AM	9:38 AM	9:40 AM	9:44 AM	9:48 AM	9:52 AM	9:54 AM	9:56 AM
9:45 AM	9:49 AM	9:53 AM	9:55 AM	9:59 AM	10:03 AM	10:07 AM	10:09 AM	10:11 AM
10:00 AM	10:04 AM	10:08 AM	10:10 AM	10:14 AM	10:18 AM	10:22 AM	10:24 AM	10:26 AM
10:20 AM	10:24 AM	10:28 AM	10:30 AM	10:34 AM	10:38 AM	10:42 AM	10:44 AM	10:46 AM
10:40 AM	10:44 AM	10:48 AM	10:50 AM	10:54 AM	10:58 AM	11:02 AM	11:04 AM	11:06 AM
11:00 AM	11:04 AM	11:08 AM	11:10 AM	11:14 AM	11:18 AM	11:22 AM	11:24 AM	11:26 AM
11:20 AM	11:24 AM	11:28 AM	11:30 AM	11:34 AM	11:38 AM	11:42 AM	11:44 AM	11:46 AM
11:35 AM	11:39 AM	11:43 AM	11:45 AM	11:49 AM	11:53 AM	11:57 AM	11:59 AM	12:01 PM
11:50 AM	11:54 AM	11:58 AM	12:00 PM	12:04 PM	12:08 PM	12:12 PM	12:14 PM	12:16 PM
12:05 PM	12:09 PM	12:13 PM	12:15 PM	12:19 PM	12:23 PM	12:27 PM	12:29 PM	12:31 PM
12:20 PM	12:24 PM	12:28 PM	12:30 PM	12:34 PM	12:38 PM	12:42 PM	12:44 PM	12:46 PM
12:35 PM	12:39 PM	12:43 PM	12:45 PM	12:49 PM	12:53 PM	12:57 PM	12:59 PM	1:01 PM
12:50 PM	12:54 PM	12:58 PM	1:00 PM	1:04 PM	1:08 PM	1:12 PM	1:14 PM	1:16 PM
1:05 PM	1:09 PM	1:13 PM	1:15 PM	1:19 PM	1:23 PM	1:27 PM	1:29 PM	1:31 PM
1:20 PM	1:24 PM	1:28 PM	1:30 PM	1:34 PM	1:38 PM	1:42 PM	1:44 PM	1:46 PM
1:35 PM	1:39 PM	1:43 PM	1:45 PM	1:49 PM	1:53 PM	1:57 PM	1:59 PM	2:01 PM
1:50 PM	1:54 PM	1:58 PM	2:00 PM	2:04 PM	2:08 PM	2:12 PM	2:14 PM	2:16 PM
2:05 PM	2:09 PM	2:13 PM	2:15 PM	2:19 PM	2:23 PM	2:27 PM	2:29 PM	2:31 PM
2:20 PM	2:24 PM	2:28 PM	2:30 PM	2:34 PM	2:38 PM	2:42 PM	2:44 PM	2:46 PM
2:35 PM	2:39 PM	2:43 PM	2:45 PM	2:49 PM	2:53 PM	2:57 PM	2:59 PM	3:01 PM
2:50 PM	2:54 PM	2:58 PM	3:00 PM	3:04 PM	3:08 PM	3:12 PM	3:14 PM	3:16 PM
3:05 PM	3:09 PM	3:13 PM	3:15 PM	3:19 PM	3:23 PM	3:27 PM	3:29 PM	3:31 PM
3:20 PM	3:24 PM	3:28 PM	3:30 PM	3:34 PM	3:38 PM	3:42 PM	3:44 PM	3:46 PM
3:35 PM	3:39 PM	3:43 PM	3:45 PM	3:49 PM	3:53 PM	3:57 PM	3:59 PM	4:01 PM
3:50 PM	3:54 PM	3:58 PM	4:00 PM	4:04 PM	4:08 PM	4:12 PM	4:14 PM	4:16 PM
4:05 PM	4:09 PM	4:13 PM	4:15 PM	4:19 PM	4:23 PM	4:27 PM	4:29 PM	4:31 PM
4:20 PM	4:24 PM	4:28 PM	4:30 PM	4:34 PM	4:38 PM	4:42 PM	4:44 PM	4:46 PM
4:35 PM	4:39 PM	4:43 PM	4:45 PM	4:49 PM	4:53 PM	4:57 PM	4:59 PM	5:01 PM
4:50 PM	4:54 PM	4:58 PM	5:00 PM	5:04 PM	5:08 PM	5:12 PM	5:14 PM	5:16 PM
5:05 PM	5:09 PM	5:13 PM	5:15 PM	5:19 PM	5:23 PM	5:27 PM	5:29 PM	5:31 PM
5:20 PM	5:24 PM	5:28 PM	5:30 PM	5:34 PM	5:38 PM	5:42 PM	5:44 PM	5:46 PM
5:35 PM	5:39 PM	5:43 PM	5:45 PM	5:49 PM	5:53 PM	5:57 PM	5:59 PM	6:01 PM
5:50 PM	5:54 PM	5:58 PM	6:00 PM	6:04 PM	6:08 PM	6:12 PM	6:14 PM	6:16 PM
6:05 PM	6:09 PM	6:13 PM	6:15 PM	6:19 PM	6:23 PM	6:27 PM	6:29 PM	6:31 PM
6:20 PM	6:24 PM	6:28 PM	6:30 PM	6:34 PM	6:38 PM	6:42 PM	6:44 PM	6:46 PM
6:35 PM	6:39 PM	6:43 PM	6:45 PM	6:49 PM	6:53 PM	6:57 PM	6:59 PM	7:01 PM
6:50 PM	6:54 PM	6:58 PM	7:00 PM	7:04 PM	7:08 PM	7:12 PM	7:14 PM	7:16 PM
7:05 PM	7:09 PM	7:13 PM	7:15 PM	7:19 PM	7:23 PM	7:27 PM	7:29 PM	7:31 PM
7:20 PM	7:24 PM	7:28 PM	7:30 PM	7:34 PM	7:38 PM	7:42 PM	7:44 PM	7:46 PM
7:35 PM	7:39 PM	7:43 PM	7:45 PM	7:49 PM	7:53 PM	7:57 PM	7:59 PM	8:01 PM
7:50 PM	7:54 PM	7:58 PM	8:00 PM	8:04 PM	8:08 PM	8:12 PM	8:14 PM	8:16 PM
8:05 PM	8:09 PM	8:13 PM	8:15 PM	8:19 PM	8:23 PM	8:27 PM	8:29 PM	8:31 PM
8:20 PM	8:24 PM	8:28 PM	8:30 PM	8:34 PM	8:38 PM	8:42 PM	8:44 PM	8:46 PM
8:35 PM	8:39 PM	8:43 PM	8:45 PM	8:49 PM	8:53 PM	8:57 PM	8:59 PM	9:01 PM
8:50 PM	8:54 PM	8:58 PM	9:00 PM	9:04 PM	9:08 PM	9:12 PM	9:14 PM	9:16 PM
9:05 PM	9:09 PM	9:13 PM	9:15 PM	9:19 PM	9:23 PM	9:27 PM	9:29 PM	9:31 PM
9:20 PM	9:24 PM	9:28 PM	9:30 PM	9:34 PM	9:38 PM	9:42 PM	9:44 PM	9:46 PM
9:35 PM	9:39 PM	9:43 PM	9:45 PM	9:49 PM	9:53 PM	9:57 PM	9:59 PM	10:01 PM
9:50 PM	9:54 PM	9:58 PM	10:00 PM	10:04 PM	10:08 PM	10:12 PM	10:14 PM	10:16 PM

7.0 SURVEY OF TRANSIT NEED

A recent survey of drivers in the Deptford retail area revealed a detailed view of motorists' attitudes towards public transit and the likelihood of them using transit.

In response to the question, "Are you aware of public transit service in this area? If yes, have you used it?" 42% of motorists indicated that they were aware of public transit in the area, while 58% replied that they were not aware of such services (**Table 7**). Of those reporting an awareness of public transit, 7% indicated that they had used it, while the remaining 93% replied that they had not (**Table 8**).

Table 7
Aware Of Public Transit Service In Area

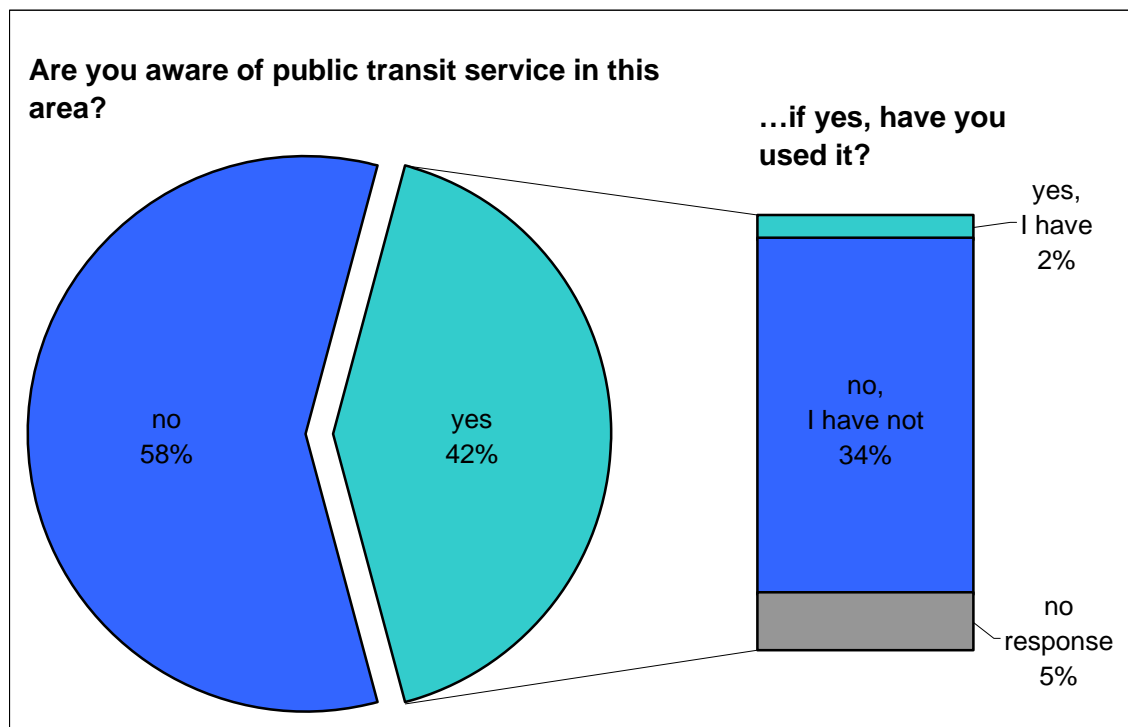
	Total	
Yes	884	42%
No	1235	58%
Total	2,119	100%

Table 8
Have Used Public Transit

	Total	
Yes	52	7%
No	718	93%
Total	770	100%
No Response	114	

Overall, 34% of motorists responding reported an awareness of transit but had never used it, and only 2% were both aware of and had used public transportation (**Figure 1**).

Figure 1: Aware of Public Transit



For the question, “If available, would you use a shuttle bus to travel to this area or within this area?” 329 or 16% of respondents said that they would use a shuttle bus to the area if available. **(Table 9).**

When asked if they would use a shuttle bus to travel *within* the retail area, 381 or 25% of respondents said yes **(Table 10)**. This reveals that although the majority of motorists would prefer not to use the shuttle, based on the sample, 381 would use the shuttle. When extrapolated to the wider population, these results indicate that a critical mass may exist in support of a viable shuttle operation.

Table 9

Would use a shuttle bus to travel to the area

	Total	
Yes	329	16%
No	1691	84%
Total	2020	100%

Table 10

Would use a shuttle bus to travel within the area

	Total	
Yes	381	25%
No	1154	75%
Total	1535	100%

7.1 Potential Riders by Income and Municipality

To further understand the population's willingness to use a shuttle bus service, the incomes and municipalities of origin for motorists surveyed were analyzed for notable trends.

Motorists reporting annual household incomes between \$10,000-\$35,000 were most inclined to use a shuttle to the survey area, with 23% of respondents indicating an interest in the service (**Figure 2**).

20% of motorists with incomes less than \$10,000 also responded in favor of a bus.

Similarly, motorists most in favor of a shuttle bus *within* the survey area were those with incomes between \$10,000-\$35,000 per year (**Figure 3**), with about 20% of the respondents of that income bracket indicating that they would use a shuttle. Of the group reporting an annual income of \$35,000-\$75,000 per year, 18% indicated interest in a shuttle within the retail area.

Figure 2

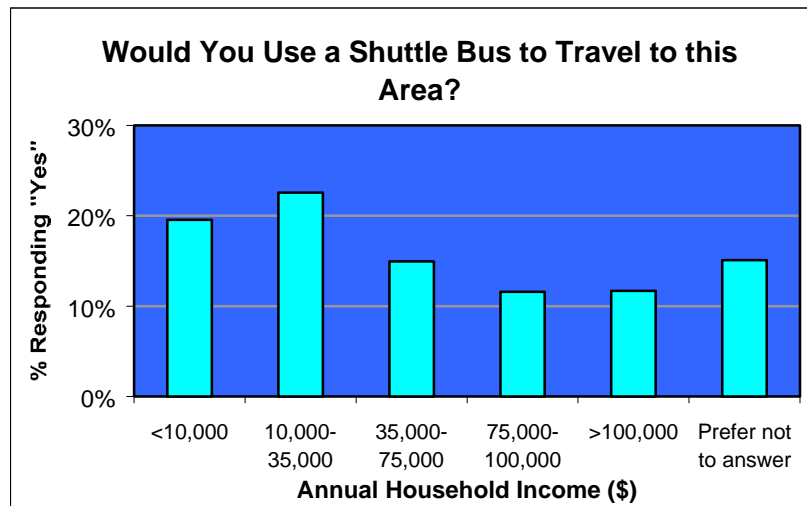
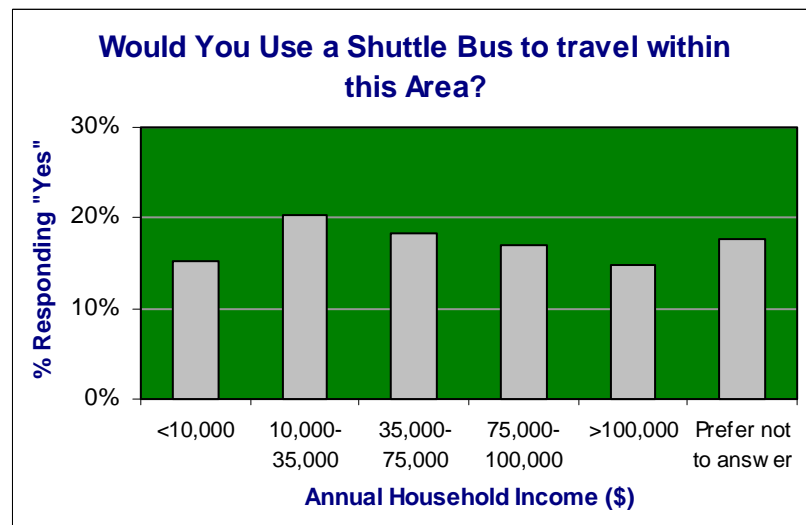


Figure 3



As is reflected in **Table 11** and **Table 12**, the majority of respondents in favor of shuttles both *to* the area and *within* it were traveling from the Deptford vicinity.

Table 11
[Home Municipality for Respondents Who Would Use Shuttle to the Area](#)

Municipality	# of Responses
DEPTFORD	107
GLOUCESTER	27
WESTVILLE	19
RUNNEMEDE	18
WOODBURY	12
PHILADELPHIA	7
BELLMAWR	6
MANTUA	6

Table 12
[Home Municipality for Respondents Who Would Use Shuttle Within the Area](#)

Municipality	# of Responses
DEPTFORD	106
GLOUCESTER	27
WESTVILLE	19
WASHINGTON	18
WOODBURY	17
RUNNEMEDE	16
WEST DEPTFORD	14
PITMAN	8
MANTUA	8
PHILADELPHIA	7
GLASSBORO	6
WENONAH	6

Among those motorists traveling through Deptford on a typical weekend (Saturday), the highest demand for a shuttle bus to the area was at 7:00 PM, with 19% of respondents indicating that they would use the shuttle service. Similarly, 25% of those surveyed at 7:00 PM also indicated an interest in a shuttle bus service *within* the retail area. They were followed by 23% of respondents from 2:00 PM (Figure 4).

Of those motorists surveyed on a typical weekday (Tuesday), 21% at 3:00 PM indicated an interest in a shuttle bus service to the area. This was followed by 18% for 9:00 AM and 1:00 PM.

The highest demand for a shuttle bus *within* the area was at 3:00 PM, with 26% of motorists surveyed at that time indicating an interest in such a service. This was followed by 23% at 7:00 PM and 20% at 2:00 PM (Figure 5).

Figure 4

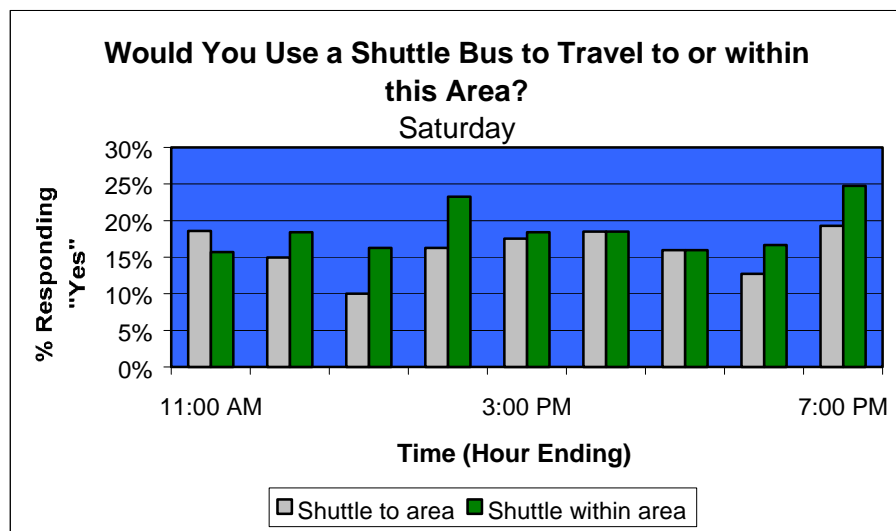
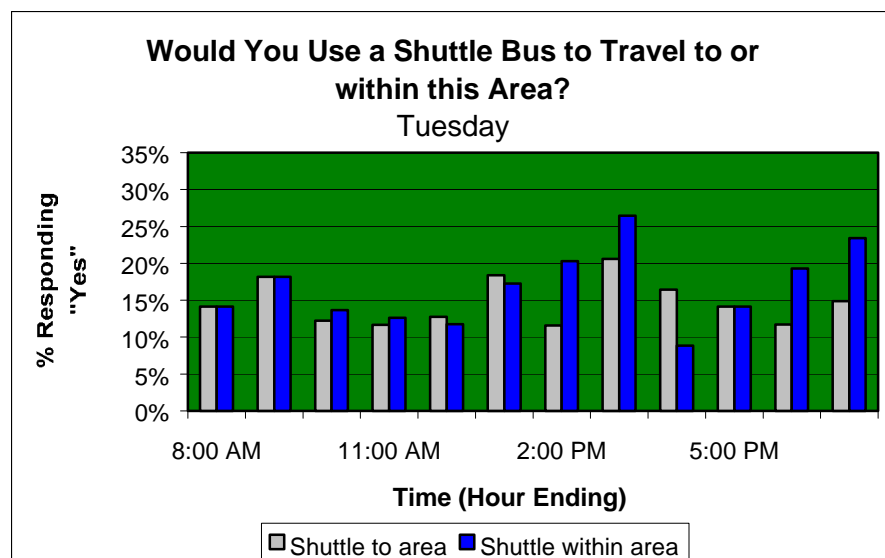


Figure 5



8.0 IMPLEMENTATION PLAN

There are several area-wide measures that should be pursued in order to implement and sustain a viable shuttle operation in the Deptford area that would optimize the benefits to the area. These policy measures will ensure that the right environment will exist for an effective shuttle operation.

Complementary Policies

In the Deptford area, effective policies could include preferential treatment for the shuttle bus such as signal preemption and exclusive right-of-way in and around the shopping centers. Implementation of these complementary policies will require a strong coalition of governmental and business leaders in the area. This is especially needed in high volume areas such as along Clements Bridge Road and Hurffville Road (**Map 7**). Local, state and county engineers will need to adopt complementary policies for this to happen.

Land Use Patterns

High population and employment densities allow for greater transit service potential. This can be accomplished by locating new developments within already established areas. Population and employment forecasts for Deptford Township as a whole show a growth of 10% and 14% respectively between 2000 and 2025. This means that the area is expected to experience an increase in trips and land use densities.

Current land-use patterns yield a diffused retail area. This diffusion results in a significant amount of Single Occupant Vehicle (SOV) trips within the retail area as well as between the retail area and other uses such as residential. The updated master plan should allow for a consolidation of land uses including retail, residential, office, and parking. Such a change would enhance

the pedestrian environment by bringing uses closer together. Multiple trips within and between uses would be possible on foot. An enhanced pedestrian environment would also better support a transit system. Trips from one end of the retail area to the other would be easier by shuttle bus than by retrieving a car and hunting for a new space.

Market Segmentation and Planning

It is important that the transit-sensitive markets in the area be identified and that the service be tailored to these markets. Since shoppers making multiple stops are the primary targets, the shuttle route should be designed to serve the major shopping destinations and adjusted to changing demand. The transit dependent population, an important market for this shuttle, should be identified and their willingness to use this shuttle determined.

Stable Funding

This shuttle service should have a dedicated funding stream that will ensure consistency of service. Less reliance should be placed on the fare box receipts. Instead, there should be a public/private partnership comprising of governmental entities and merchants, which demonstrates the benefits to both parties.

Role of the Private Sector

The private sector can provide funds and donations that will help offset some of the costs associated with investment and operations. The shuttle operator should aggressively seek such opportunities by demonstrating the benefits of the transit system in terms of convenience and reduced cost for both employees and customers. The Journey-to-Work data in **Table 4** reflect the heavy reliance on the single occupant vehicle for employees in the

area. This is an untapped market that could benefit from improved transit.

Coordination

A mix of strategies, coordinated land use, and appropriate complementary policies should be included in the best scenario for an effective shuttle network. There should be coordination with NJ TRANSIT bus routes #400 and #455 that already serve the area as well as exploring the feasibility of modifying existing routes to better serve the market.

1. Market Analysis

A detailed market analysis is needed to determine how strong a market exists for a shuttle for both shoppers as well as the transit dependent population in the area. New development and expansion of existing businesses could lead to increased ridership of the shuttle.

Direct, fast, and reliable service are important factors when trying to attract drivers out of their cars and onto the shuttle. The shuttle experience should be such that its users are able to arrive at their destination in less time than it would take them in a private automobile. Riders should be aware of the convenience of “one-stop” parking and the benefits of a reduction of short-term auto trips on area roadways.

Ideally, shuttles should be free during the startup period. After the introductory period, riders could eventually be charged a nominal fee of \$0.50 - \$1.00. This discounted fare policy is to allow the shuttle to compete with the free parking that is available at all shopping centers in the area.

Unique-looking vehicles are important in attracting customers. Clean, energy efficient vehicles should be used. These could be fueled by compressed natural gas (CNG), electric, or hybrid

engines to demonstrate the added benefit of improving air quality.

2. Operations

It is proposed that two routes be implemented during the first phase of operations. The success of all of the routes will depend on good overall management of the physical transportation infrastructure, as well as enforcement of traffic regulations along the rights-of-way used by the shuttle. This may require minor roadway improvements and traffic enforcement as necessary. Additionally, future construction of an exclusive bus lane along the shuttle route could improve the service. The strategic placement of bus stops at peak load points will be required.

3. Capital Needs

Vehicles will be the most significant capital expense for the shuttle service. A capital plan will identify the appropriate technology for the area. A 40-passenger bus or minibus would not be appropriate since they do not permit relatively fast ingress and egress. A vintage trolley, while having an historic appeal, is best suited for seasonal operations. A modern streetcar would be inappropriate due to its lack of flexibility in routing and high capital cost. The most appropriate vehicle would be low floor to provide ease of ingress and egress; have large windows to permit the passengers to view their upcoming stop; of an appropriate size for the initial demand (20 passenger); and operate on clean fuels (natural gas, electric, electric-hybrid). However, these specifications could vary depending on available financing.

The Deptford shuttle will require a fleet of 3 vehicles, 2 in operation while one would be in reserve. Depending on the vehicle selected, the vehicle costs will

be between \$85,000 and \$90,000 each. Bus stops will in most cases be at the entrances to stores. Shelters will be erected in areas where there are no structures close to the route. Appropriate storage and maintenance facility could be at a county department of public works facility, at a municipal garage or a private facility.

4. Financing

A detailed financial plan should be developed which would identify a stable set of funding sources for the service. Initially, 100% of the operating cost should be borne by the sponsors. This will encourage potential riders to ride the shuttle and experience its advantages over the automobile. After a steady demand has been established, passenger can then be charged a nominal fee.

A. Lead Agency

The lead agency should be either the county or municipality – major stakeholders in development within the area – who would champion development of the project.

B. Final Design

It is recommended that the proposed route be analyzed in greater detail to determine the demand in the area as well as transportation infrastructure requirements and costs. Many of these issues go beyond the scope of this study and would be better addressed by more detailed technical analysis. Preliminary/Final Engineering and Design as well as infrastructure Improvement (signal preemption, signal coordination and ROW construction) would be addressed in a detailed analysis.

C. Estimated Cost

In estimating costs for the operation of a 3-vehicle shuttle fleet, two options were considered.

Option 1

This option is with a public entity (Township or County) providing direct service. This will entail both capital and operating costs.

Capital cost

Capital cost will primarily consist of purchasing three 22-24-passenger vehicles at a cost of approximately \$90,000 each. If low floor vehicles are desired, the unit cost will increase. Additional costs include signage, bus lane demarcation and bus stops where necessary.

Operating cost

Based on similar type programs in the region, annual operating cost is estimated at approximately \$150,000. This includes labor (2 drivers for a total of approximately \$52,000 per year), the cost of vehicle maintenance (3 vehicles for a total cost of approximately \$9,000 per year), and fuel cost, insurance, depreciation, and administration.

Option 2

This option is to have a private transit operator provide the service on a contractual basis. The cost will vary depending on the hours of operation and headways and distance. Cost in the DVRPC region varies from \$275,000 per year for 80 weekly roundtrips to \$549,000 for 432 weekly round trips.

1. Financing Options

The following approaches have been identified as feasible paths to finance the Deptford shuttle. These could be pursued separately or in different combination as a part of an overall financing package.

a. Private Participation

Operating and maintenance cost can be offset with revenues from retailers in the area. Retailers can be assessed a fee based on the amount of square-foot retail space they

occupy. With the 8 major shopping centers in the area accounting for more than 2.6 million square feet in retail space (Table 1), an annualized operating cost of \$150,000 could be met by a \$0.06 per square foot annual assessment.

b. Direct Federal Earmark Grant

Funding can be sought by way of a Federal payment/grants through a direct earmark as a demonstration project to generate economic development.

c. Federal Grants Programs

i. Congestion Management and Air Quality program (CMAQ) - This program is a strategic federal initiative, funded through the DVRPC Transportation Improvement Program (TIP). Funding is provided to projects that meet specific guidelines for air quality improvement. These projects are selected for their ability to help the region reduce emissions from highway sources and meet National Clean Air Act standards. CMAQ is a reimbursement program which will cover up to 80% of project costs. A project's sponsor is required to cover at least the remaining 20%.

ii. Transportation and Community Development Initiative (TCDI) - This is a DVRPC funded program that provides grants to municipalities to support the implementation of the policies of the DVRPC regional plan through local revitalization efforts. The project must improve the market for development and must serve to enhance the operations of the transportation network.

The TCDI program is intended to assist in reversing the trends of disinvestments and decline in

many of the region's core cities and first generation suburbs by:

- Supporting local planning projects that will lead to more residential, employment and retail opportunities;
- Improving the overall character and quality of life within these communities to retain and attract business and residents, which will help to reduce the pressure for further sprawl and expansion to the growing suburbs;
- Enhancing and utilizing the existing transportation infrastructure capacity in these areas to reduce the demands on the region's road network; and;
- Reducing congestion and improving the transportation system's efficiency.

iii. Economic Development Assistance Programs - Availability of Funds Under the Public Works and Economic Development Act of 1965 as amended - The Economic Development Administration (EDA) processes requests for funding for projects that will create wealth and minimize poverty by promoting a favorable business environment to attract private capital investment and high skill, high wage jobs through world-class capacity building, infrastructure, business assistance, research grants and strategic initiatives.

Funding priorities for pre-application proposals are based on the following:

- Proposals that enhance regional competitiveness and support long-term development of the regional economy, for example:
 - Upgrade core business infra-

structure.

- Reflect and implement a regional strategy that involves all stakeholders.
- Encourage cluster development.
- Proposals to help communities plan and implement economic adjustment strategies in response to sudden and severe economic dislocations (e.g., major lay-offs and/or plant closures, trade impacts, defense restructuring, or disasters).
- Proposals that support technology-led economic development;
- Proposals that advance community and faith-based social enterprise in redevelopment strategies for areas of chronic economic distress.

d. *NJ TRANSIT Community Shuttle Program* - NJ TRANSIT's Community Shuttle Program offers a community the opportunity to provide its residents with shuttle service to and from a rail station, major bus corridor or a light rail station, during "peak" periods (6-9 a.m. and 4-7 p.m.). The program is a competitive process, open to any municipality or county. NJ TRANSIT uses federal funds to purchase 20-passenger minibuses that are leased, at no cost, to municipalities /counties for use in providing shuttle service. In addition, NJ TRANSIT offers initial "seed" funding in partial support of the operating costs for the shuttle service, during the first three years of operation. A municipality may use the vehicle during non-peak periods for other local transportation needs, at its own expense.

Eligibility

This program is open to:

- i. Individual municipalities Two or more municipalities applying together for one vehicle
- ii. Counties
- iii. Other community-affiliated organizations

Requirements

As part of the application process, a community must develop:

- i. Route
- ii. Schedule
- iii. Fare Policy
- iv. Marketing Plan; and
- v. Budget.

Also, an applicant must provide NJ TRANSIT with a copy of a resolution from the governing body acknowledging financial responsibility for the service expenses beyond the "seed" funding from NJ TRANSIT. If selected to participate in the program, a community must be able to provide the following:

- i. Properly licensed drivers (CDL with passenger endorsement)
- ii. Locally owned back-up vehicle
- iii. Insurance for vehicle
- iv. Approved Federal Transit Administration Drug and Alcohol policy and testing program
- v. Labor union information as requested; and Ridership and other vehicular reports

Technical Assistance

NJ TRANSIT will host a workshop to assist applicants in developing a route and schedule for the shuttle. In addition, technical assistance will be available via telephone for organizations that cannot attend the workshop.

Selection criteria

This will include:

- i. Operational capability
- ii. Transit access and parking issues facing the community
- iii. Evidence of ability to plan, market and operate the service
- iv. Understanding of financial and administrative commitment required
- v. Demonstrated local government commitment and other support
- vi. Cooperation with NJ TRANSIT
- vii. Coordination with local community transportation needs
- viii. Opportunities to connect rail stations with residential and work sites.

Appendix

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/8/2004

ROAD: CR 544 CLEMENTS BRIDGE RD FROM: NJ 42

TO: NJ 41

COUNTY: GLOUCESTER

MCD: 318 - DEPTFORD TOWNSHIP

SR/SEG/OFF: //

FC: 14

PROJECT: 543-310 COUNT DIR: EAST

TRAFFIC DIR: W TO E

SPEED LIMIT:

STATION ID: DVRPC FILE #: 16497

COUNTER #: 317

WEATHER: F

<div> <div> <div>HOUR</div> <div>ENDING</div> </div> </div>	Wednesday 09/08/04	Thursday 09/09/04	Friday 09/10/04	Saturday 09/11/04	Sunday 09/12/04	Monday 09/13/04	Tuesday 09/14/04	Wednesday 09/15/04	Thursday 09/16/04
1 AM		117	130	179	187	91			
2 AM		65	68	128	148	58			
3 AM		37	47	110	112	42			
4 AM		39	34	82	70	27			
5 AM		42	55	41	52	44			
6 AM		158	123	72	44	105			
7 AM		336	342	139	72	338			
8 AM		706	611	235	137	597			
9 AM	804	762	701	379	251	635			
10 AM	631	544	618	510	388	506			
11 AM	619	630	728	771	609	418			
12 PM	744	786	786	973	856	772			
1 PM	799	830	948	1,001	1,028	832			
2 PM	870	830	996	1,021	1,109	769			
3 PM	846	900	954	1,024	1,047	881			
4 PM	887	921	923	1,005	1,087	905			
5 PM	871	858	866	980	955	863			
6 PM	857	891	859	921	802	836			
7 PM	849	826	870	851	651				
8 PM	835	782	898	884	571				
9 PM	693	666	787	797	493				
10 PM	455	479	585	562	340				
11 PM	259	243	412	419	197				
12 AM	145	166	276	322	151				
		12,614							

SEASONAL FACTOR:	0.923	AADT:	11,643	AM Peak %	6.2	Hour Ending	12:00 PM
AXLE CORR. FACTOR:	0.943			PM Peak %	7.3	Hour Ending	4:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/8/2004

ROAD: CR 544 CLEMENTS BRIDGE RD FROM: NJ 42

TO: NJ 41

COUNTY: GLOUCESTER

MCD: 318 - DEPTFORD TOWNSHIP

SR/SEG/OFF: //

FC: 14

PROJECT: 543-310 **COUNT DIR:** WEST

TRAFFIC DIR: W TO E

SPEED LIMIT:

STATION ID: DVRPC FILE #: 16498

COUNTER #: 320

WEATHER: F

Hour Ending	Wednesday 09/08/04	Thursday 09/09/04	Friday 09/10/04	Saturday 09/11/04	Sunday 09/12/04	Monday 09/13/04	Tuesday 09/14/04	Wednesday 09/15/04	Thursday 09/16/04
1 AM		90	90	174	191	90			
2 AM		40	56	104	97	47			
3 AM		41	47	82	83	33			
4 AM		55	42	68	52	36			
5 AM		79	90	62	51	75			
6 AM		264	240	119	57	243			
7 AM		562	559	203	96	571			
8 AM		563	765	325	152	734			
9 AM	686	729	778	429	266	754			
10 AM	768	637	705	616	434	702			
11 AM	656	647	718	750	680	743			
12 PM	719	655	707	786	753	708			
1 PM	722	724	766	778	759	710			
2 PM	665	726	826	679	642	699			
3 PM	717	644	782	624	544	667			
4 PM	791	668	763	589	629	751			
5 PM	740	727	773	608	707	753			
6 PM	747	736	708	634	578	788			
7 PM	728	773	651	619	503				
8 PM	759	692	656	689	503				
9 PM	474	498	683	576	433				
10 PM	385	361	512	448	289				
11 PM	280	285	372	348	186				
12 AM	153	153	269	286	135				
		11,349							

SEASONAL FACTOR:	0.923	AADT:	10,475	AM Peak %	6.4	Hour Ending	9:00 AM
AXLE CORR. FACTOR:	0.943			PM Peak %	6.8	Hour Ending	7:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/8/2004

ROAD: CR 621 ALMONESSON RD FROM: CLEMENTS BRIDGE RD TO: MALL SOUTH DR
 COUNTY: GLOUCESTER MCD: 318 - DEPTFORD TOWNSHIP SR/SEG/OFF: // FC: 16
 PROJECT: 543-310 COUNT DIR: NORTH TRAFFIC DIR: S TO E SPEED LIMIT:
 STATION ID: DVRPC FILE #: 16499 COUNTER #: 318 WEATHER: F

HOUR ENDING	Wednesday 09/08/04	Thursday 09/09/04	Friday 09/10/04	Saturday 09/11/04	Sunday 09/12/04	Monday 09/13/04	Tuesday 09/14/04	Wednesday 09/15/04	Thursday 09/16/04
1 AM		30	30	84	93	43			
2 AM		24	23	49	30	21			
3 AM		8	20	23	40	7			
4 AM		17	15	25	29	12			
5 AM		12	9	17	11	16			
6 AM		60	50	30	17	44			
7 AM		482	452	64	37	541			
8 AM		953	898	133	54	865			
9 AM	928	1,045	950	199	124	817			
10 AM	805	549	625	397	265	411			
11 AM	560	544	599	630	507	560			
12 PM	706	686	794	877	763	695			
1 PM	775	754	828	962	1,034	736			
2 PM	795	811	973	1,038	1,082	753			
3 PM	837	767	952	1,040	1,170	750			
4 PM	830	760	867	1,046	1,172	755			
5 PM	845	774	923	1,051	1,051	779			
6 PM	800	843	842	994	794	751			
7 PM	805	851	842	963	639				
8 PM	886	840	981	959	491				
9 PM	837	783	952	848	312				
10 PM	571	539	741	668	207				
11 PM	210	162	430	419	126				
12 AM	88	84	233	199	68				
		12,378							

SEASONAL FACTOR:	0.944	AADT:	11,685	AM Peak %	8.4	Hour Ending	9:00 AM
AXLE CORR. FACTOR:	0.976			PM Peak %	6.9	Hour Ending	7:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/8/2004

ROAD: CR 621 ALMONESSON RD

FROM: CLEMENTS BRIDGE RD

TO: MALL SOUTH DR

COUNTY: GLOUCESTER

MCD: 318 - DEPTFORD TOWNSHIP

SR/SEG/OFF: //

FC: 16

PROJECT: 543-310

COUNT DIR: SOUTH

TRAFFIC DIR: S TO E

SPEED LIMIT:

STATION ID:

DVRPC FILE #: 16500

COUNTER #: 319

WEATHER: F

Hour Ending	Wednesday 09/08/04	Thursday 09/09/04	Friday 09/10/04	Saturday 09/11/04	Sunday 09/12/04	Monday 09/13/04	Tuesday 09/14/04	Wednesday 09/15/04	Thursday 09/16/04
1 AM		70	64	101	98	40			
2 AM		72	44	65	59	29			
3 AM		36	26	49	61	36			
4 AM		13	14	32	33	8			
5 AM		9	20	28	17	14			
6 AM		48	46	31	8	54			
7 AM		134	136	79	35	149			
8 AM		201	232	139	84	253			
9 AM	288	283	300	255	166	382			
10 AM	441	467	493	517	305	587			
11 AM	664	621	742	841	650	872			
12 PM	775	712	787	969	921	643			
1 PM	827	795	894	1,049	1,075	758			
2 PM	750	750	889	1,037	1,033	778			
3 PM	792	718	878	1,080	1,015	688			
4 PM	809	746	959	1,004	937	675			
5 PM	874	977	1,100	1,022	778	869			
6 PM	1,049	1,079	1,116	933	593	1,010			
7 PM	1,187	1,074	1,211	939	418				
8 PM	929	884	1,198	944	347				
9 PM	583	515	791	639	224				
10 PM	257	292	433	384	144				
11 PM	112	147	285	241	74				
12 AM	75	98	154	153	43				
		10,741							

SEASONAL FACTOR:	0.944	AADT:	10,140	AM Peak %	6.6	Hour Ending	12:00 PM
AXLE CORR. FACTOR:	0.976			PM Peak %	10.0	Hour Ending	6:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/8/2004

FROM: JARETT DR

TO: HIDDEN OAKS DR

MCD: 318 - DEPTFORD TOWNSHIP

11

FC: 16

PROJECT: 543-310 **COUNT DIR:** NORTH **TRAFFIC DIR:** S TOE **SPEED LIMIT:** 35

STATION ID: **DVRPC FILE #:** 16501 **COUNTER #:** 324 **WEATHER:** F

Hour Ending	Wednesday 09/08/04	Thursday 09/09/04	Friday 09/10/04	Saturday 09/11/04	Sunday 09/12/04	Monday 09/13/04	Tuesday 09/14/04	Wednesday 09/15/04	Thursday 09/16/04
1 AM		77	62	139	126	61			
2 AM		50	29	84	84	39			
3 AM		22	28	70	66	20			
4 AM		18	20	35	56	14			
5 AM		23	22	29	30	23			
6 AM		78	69	44	24	72			
7 AM		403	389	60	40	416			
8 AM	898	942	840	103	49	909			
9 AM	926	902	820	141	73	799			
10 AM	604	383	353	237	153	261			
11 AM	325	279	302	324	264	298			
12 PM	386	341	357	440	383	358			
1 PM	431	397	415	485	484	373			
2 PM	373	397	485	501	546	401			
3 PM	475	434	537	546	670	484			
4 PM	525	431	547	518	727	492			
5 PM	539	556	633	623	721	519			
6 PM	539	540	580	570	479	542			
7 PM	518	537	544	492	406				
8 PM	531	496	552	477	421				
9 PM	554	505	552	503	284				
10 PM	430	356	456	408	194				
11 PM	212	206	322	322	151				
12 AM	101	102	213	178	77				
		8,475							

SEASONAL FACTOR:	0.944	AADT:	8,000	AM Peak %	11.1	Hour Ending	8:00 AM
AXLE CORR. FACTOR:	0.976			PM Peak %	6.6	Hour Ending	5:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/8/2004

FROM: JARETT DR

TO: HIDDEN OAKS DR

MCD: 318 - DEPTFORD TOWNSHIP

FC: 16

PROJECT: 543-310 **COUNT DIR:** SOUTH **TRAFFIC DIR:** S TO E **SPEED LIMIT:** 35

STATION ID: DVRPC FILE #: 16502 COUNTER #: 326 WEATHER: F

Hour Ending	Wednesday 09/08/04	Thursday 09/09/04	Friday 09/10/04	Saturday 09/11/04	Sunday 09/12/04	Monday 09/13/04	Tuesday 09/14/04	Wednesday 09/15/04	Thursday 09/16/04
1 AM		44	57	101	89	39			
2 AM		25	24	61	61	10			
3 AM		16	19	38	36	15			
4 AM		18	13	30	20	12			
5 AM		22	23	25	22	26			
6 AM		70	68	45	19	79			
7 AM		193	216	84	48	204			
8 AM		306	330	168	85	316			
9 AM	329	290	337	225	154	322			
10 AM	319	328	365	417	264	337			
11 AM	421	397	464	525	461	399			
12 PM	440	393	452	635	593	387			
1 PM	481	453	525	663	713	438			
2 PM	447	438	508	600	626	423			
3 PM	447	451	533	585	574	459			
4 PM	575	588	762	572	506	576			
5 PM	874	949	1,014	512	445	765			
6 PM	1,079	1,119	1,145	541	352	1,005			
7 PM	1,053	884	1,057	543	255				
8 PM	553	549	804	472	248				
9 PM	355	281	441	333	222				
10 PM	170	199	253	186	117				
11 PM	113	112	177	155	92				
12 AM	77	83	114	122	55				
		8,208							

SEASONAL FACTOR:	0.944	AADT:	7,748	AM Peak %	4.8	Hour Ending	11:00 AM
AXLE CORR. FACTOR:	0.976			PM Peak %	13.6	Hour Ending	6:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/8/2004

ROAD: CR 544 CLEMENTS BRIDGE RD FROM: NJ 55

TO: CR 621

COUNTY: GLOUCESTER

MCD: 318 - DEPTFORD TOWNSHIP

SR/SEG/OFF: //

FC: 14

PROJECT: 543-310 COUNT DIR: EAST TRAFFIC DIR: W TO E SPEED LIMIT: 35

STATION ID: DVRPC FILE #: 16503 COUNTER #: 323 WEATHER: F

HOUR ENDING	Wednesday 09/08/04	Thursday 09/09/04	Friday 09/10/04	Saturday 09/11/04	Sunday 09/12/04	Monday 09/13/04	Tuesday 09/14/04	Wednesday 09/15/04	Thursday 09/16/04
1 AM		78	85	167	158	65			
2 AM		57	47	98	92	54			
3 AM		36	37	81	76	28			
4 AM		36	29	68	64	23			
5 AM		47	41	49	48	56			
6 AM		111	133	86	49	111			
7 AM		194	224	121	88	207			
8 AM		347	343	278	152	369			
9 AM	489	516	495	355	212	502			
10 AM	581	531	538	505	376	553			
11 AM	646	642	742	711	584	660			
12 PM	756	707	875	941	769	738			
1 PM	863	887	938	951	903	778			
2 PM	887	889	944	985	975	844			
3 PM	889	847	965	1,018	929	838			
4 PM	924	846	890	1,039	995	811			
5 PM	957	959	979	993	827	864			
6 PM	1,030	970	985	980	793	945			
7 PM	920	911	878	831	619				
8 PM	923	869	942	851	531				
9 PM	723	704	815	716	373				
10 PM	515	490	698	615	270				
11 PM	226	241	404	424	150				
12 AM	115	140	242	258	119				
		12,055							

SEASONAL FACTOR:	0.923	AADT:	11,127	AM Peak %	5.9	Hour Ending	12:00 PM
AXLE CORR. FACTOR:	0.943			PM Peak %	8.0	Hour Ending	6:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/8/2004

ROAD: CR 544 CLEMENTS BRIDGE RD FROM: NJ 55

TO: CR 621

COUNTY: GLOUCESTER

MCD: 318 - DEPTFORD TOWNSHIP

SR/SEG/OFF: //

FC: 14

PROJECT: 543-310 COUNT DIR: WEST TRAFFIC DIR: W TO E SPEED LIMIT: 35

STATION ID: DVRPC FILE #: 16504 COUNTER #: 322 WEATHER: F

HOUR ENDING	Wednesday 09/08/04	Thursday 09/09/04	Friday 09/10/04	Saturday 09/11/04	Sunday 09/12/04	Monday 09/13/04	Tuesday 09/14/04	Wednesday 09/15/04	Thursday 09/16/04
1 AM		46	51	92	114	51			
2 AM		37	49	60	61	39			
3 AM		22	19	31	36	14			
4 AM		19	19	26	35	18			
5 AM		27	37	43	20	33			
6 AM		113	106	54	36	107			
7 AM		306	289	133	74	315			
8 AM		458	458	227	138	470			
9 AM	537	558	526	378	183	528			
10 AM	601	635	646	628	375	563			
11 AM	639	699	864	867	726	740			
12 PM	813	786	848	1,008	962	770			
1 PM	917	857	941	1,055	1,002	825			
2 PM	812	837	945	1,078	977	817			
3 PM	817	756	872	1,004	910	744			
4 PM	783	776	868	943	868	752			
5 PM	773	798	862	918	653	771			
6 PM	808	840	913	844	533	748			
7 PM	906	877	959	767	427				
8 PM	839	772	935	809	375				
9 PM	497	529	614	577	332				
10 PM	330	303	394	385	229				
11 PM	174	168	262	232	132				
12 AM	107	99	198	174	96				
		11,318							

SEASONAL FACTOR:	0.923	AADT:	10,447	AM Peak %	6.9	Hour Ending	12:00 PM
AXLE CORR. FACTOR:	0.943			PM Peak %	7.6	Hour Ending	1:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/8/2004

ROAD: CR 706 COOPER ST

FROM: BURLINGTON AVE

TO: KRAEMER CT

COUNTY: GLOUCESTER

MCD: 318 - DEPTFORD TOWNSHIP

SR/SEG/OFF: //

FC: 16

PROJECT: 543-310

COUNT DIR: EAST

TRAFFIC DIR: W TO E

SPEED LIMIT: 45

STATION ID:

DVRPC FILE #: 16505

COUNTER #: 327

WEATHER: F

Hour Ending	Wednesday 09/08/04	Thursday 09/09/04	Friday 09/10/04	Saturday 09/11/04	Sunday 09/12/04	Monday 09/13/04	Tuesday 09/14/04	Wednesday 09/15/04	Thursday 09/16/04
1 AM		31	40	66	57	28			
2 AM		17	17	29	36	13			
3 AM		10	11	31	31	11			
4 AM		19	18	20	19	12			
5 AM		17	28	9	10	23			
6 AM		69	69	28	13	69			
7 AM		124	132	56	35	127			
8 AM		240	242	124	78	227			
9 AM	218	232	207	162	116				
10 AM	236	248	218	266	177				
11 AM	226	260	293	315	295				
12 PM	299	295	298	395	358				
1 PM	343	293	321	425	411				
2 PM	306	287	328	397	371				
3 PM	296	303	338	363	339				
4 PM	321	341	381	353	327				
5 PM	381	409	427	307	273				
6 PM	408	404	475	319	228				
7 PM	388	384	423	305	170				
8 PM	308	253	368	245	183				
9 PM	227	177	222	184	136				
10 PM	153	118	155	156	116				
11 PM	79	82	121	108	64				
12 AM	43	49	87	83	49				
		4,662							

SEASONAL FACTOR:	0.944	AADT:	4,401	AM Peak %	6.3	Hour Ending	12:00 PM
AXLE CORR. FACTOR:	0.976			PM Peak %	8.8	Hour Ending	5:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/8/2004

ROAD: CR 706 COOPER ST

FROM: BURLINGTON AVE

TO: KRAEMER CT

COUNTY: GLOUCESTER

MCD: 318 - DEPTFORD TOWNSHIP

SR/SEG/OFF: //

FC: 16

PROJECT: 543-310

COUNT DIR: WEST

TRAFFIC DIR: W TO E

SPEED LIMIT: 45

STATION ID:

DVRPC FILE #: 16506

COUNTER #: 388

WEATHER: F

Hour Ending	Wednesday 09/08/04	Thursday 09/09/04	Friday 09/10/04	Saturday 09/11/04	Sunday 09/12/04	Monday 09/13/04	Tuesday 09/14/04	Wednesday 09/15/04	Thursday 09/16/04
1 AM		36	40	64	60	16			
2 AM		15	21	27	29	13			
3 AM		16	10	31	27	5			
4 AM		11	10	16	15	8			
5 AM		16	28	26	9	30			
6 AM		93	71	34	28	77			
7 AM		240	197	74	35	233			
8 AM		450	412	131	54	473			
9 AM	440	437	332	177	98				
10 AM	326	310	273	239	154				
11 AM	247	276	294	291	251				
12 PM	284	280	319	338	304				
1 PM	298	299	357	386	370				
2 PM	360	346	381	387	415				
3 PM	350	385	398	379	410				
4 PM	357	388	372	394	482				
5 PM	404	389	439	404	330				
6 PM	412	411	413	333	278				
7 PM	324	351	330	324	259				
8 PM	298	320	322	275	254				
9 PM	301	280	279	273	195				
10 PM	189	165	230	217	121				
11 PM	111	114	132	145	85				
12 AM	52	45	97	88	51				
		5,673							

SEASONAL FACTOR:	0.944	AADT:	5,355	AM Peak %	7.9	Hour Ending	8:00 AM
AXLE CORR. FACTOR:	0.976			PM Peak %	7.2	Hour Ending	6:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/8/2004

ROAD: CR 706 COOPER ST

FROM: ALMONESSON RD

TO: MARTANNA ST

COUNTY: GLOUCESTER

MCD: 318 - DEPTFORD TOWNSHIP

SR/SEG/OFF: //

FC: 16

PROJECT: 543-310

COUNT DIR: EAST

TRAFFIC DIR: W TO E

SPEED LIMIT: 35

STATION ID:

DVRPC FILE #: 16507

COUNTER #: 342

WEATHER: F

Hour Ending	Wednesday 09/08/04	Thursday 09/09/04	Friday 09/10/04	Saturday 09/11/04	Sunday 09/12/04	Monday 09/13/04	Tuesday 09/14/04	Wednesday 09/15/04	Thursday 09/16/04
1 AM		42	57	86	77	32			
2 AM		26	21	48	52	21			
3 AM		19	17	37	39	16			
4 AM		23	22	24	24	11			
5 AM		17	27	17	15	29			
6 AM		88	75	35	15	77			
7 AM		167	172	61	39	157			
8 AM		306	335	138	97	296			
9 AM	244	255	262	184	130				
10 AM	228	254	250	227	161				
11 AM	266	266	310	340	274				
12 PM	332	319	339	409	344				
1 PM	383	339	344	463	439				
2 PM	372	354	400	453	435				
3 PM	368	416	478	427	453				
4 PM	420	425	497	502	452				
5 PM	474	536	549	455	415				
6 PM	551	525	604	423	342				
7 PM	487	497	548	381	255				
8 PM	382	361	461	368	279				
9 PM	339	264	373	308	210				
10 PM	244	216	295	238	166				
11 PM	145	166	218	205	88				
12 AM	79	90	166	136	66				
		5,971							

SEASONAL FACTOR:	0.944	AADT:	5,637	AM Peak %	5.3	Hour Ending	12:00 PM
AXLE CORR. FACTOR:	0.976			PM Peak %	9.0	Hour Ending	5:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/8/2004

ROAD: CR 706 COOPER ST

FROM: ALMONESSON RD

TO: MARTANNA ST

COUNTY: GLOUCESTER

MCD: 318 - DEPTFORD TOWNSHIP

SR/SEG/OFF: //

FC: 16

PROJECT: 543-310

COUNT DIR: WEST

TRAFFIC DIR: W TO E

SPEED LIMIT: 35

STATION ID:

DVRPC FILE #: 16508

COUNTER #: 391

WEATHER: F

<div> <div>HOUR</div> <div>ENDING</div> </div>	Wednesday 09/08/04	Thursday 09/09/04	Friday 09/10/04	Saturday 09/11/04	Sunday 09/12/04	Monday 09/13/04	Tuesday 09/14/04	Wednesday 09/15/04	Thursday 09/16/04
1 AM		32	45	72	58	24			
2 AM		23	17	36	34	15			
3 AM		19	10	36	29	7			
4 AM		17	16	15	16	16			
5 AM		21	23	26	10	34			
6 AM		105	95	40	34	93			
7 AM		291	248	88	41	277			
8 AM		605	512	172	73	588			
9 AM	708	568	403	213	140				
10 AM	484	355	337	326	215				
11 AM	318	345	382	392	340				
12 PM	340	344	412	466	436				
1 PM	381	373	411	469	504				
2 PM	386	376	472	472	525				
3 PM	392	400	443	491	547				
4 PM	437	397	445	485	551				
5 PM	476	496	550	482	354				
6 PM	476	497	519	427	304				
7 PM	386	413	461	403	262				
8 PM	325	364	408	381	262				
9 PM	301	283	321	284	205				
10 PM	172	175	193	207	126				
11 PM	112	115	148	122	92				
12 AM	61	48	123	94	48				
		6,662							

SEASONAL FACTOR:	0.944	AADT:	6,289	AM Peak %	9.1	Hour Ending	8:00 AM
AXLE CORR. FACTOR:	0.976			PM Peak %	7.5	Hour Ending	6:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/8/2004

ROAD: LOCUST GROVE DR

FROM: ENTRANCE TO PLAZA AT DEPT

TO: CR 544

COUNTY: GLOUCESTER

MCD: 318 - DEPTFORD TOWNSHIP

SR/SEG/OFF: //

FC: 19

PROJECT: 543-310

COUNT DIR: NORTH

TRAFFIC DIR: N TO S

SPEED LIMIT: 25

STATION ID:

DVRPC FILE #: 16509

COUNTER #: 328

WEATHER: F

Hour Ending	Wednesday 09/08/04	Thursday 09/09/04	Friday 09/10/04	Saturday 09/11/04	Sunday 09/12/04	Monday 09/13/04	Tuesday 09/14/04	Wednesday 09/15/04	Thursday 09/16/04
1 AM		27	19	30	38	13			
2 AM		13	20	22	20	11			
3 AM		10	9	10	17	5			
4 AM		10	10	17	15	7			
5 AM		11	8	8	11	10			
6 AM		23	30	32	13	26			
7 AM		65	59	31	30	80			
8 AM		203	153	121	83	180			
9 AM		257	234	186	142				
10 AM	267	309	337	291	235				
11 AM	310	328	400	432	404				
12 PM	349	389	399	462	481				
1 PM	427	470	458	486	534				
2 PM	398	405	460	527	520				
3 PM	400	360	451	487	451				
4 PM	419	378	442	453	441				
5 PM	418	452	450	457	329				
6 PM	489	568	557	389	297				
7 PM	440	469	480	316	247				
8 PM	446	382	470	342	190				
9 PM	261	238	298	248	181				
10 PM	179	138	165	146	122				
11 PM	81	84	114	122	65				
12 AM	34	42	69	57	25				
		5,631							

SEASONAL FACTOR:	0.946	AADT:	5,327	AM Peak %	6.9	Hour Ending	12:00 PM
AXLE CORR. FACTOR:	0.988			PM Peak %	10.1	Hour Ending	6:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/8/2004

ROAD: LOCUST GROVE DR FROM: ENTRANCE TO PLAZA AT DEPT TO: CR 544
 COUNTY: GLOUCESTER MCD: 318 - DEPTFORD TOWNSHIP SR/SEG/OFF: // FC: 19
 PROJECT: 543-310 COUNT DIR: SOUTH TRAFFIC DIR: N TO S SPEED LIMIT: 25
 STATION ID: DVRPC FILE #: 16510 COUNTER #: 343 WEATHER: F

HOURLY ENDING	Wednesday 09/08/04	Thursday 09/09/04	Friday 09/10/04	Saturday 09/11/04	Sunday 09/12/04	Monday 09/13/04	Tuesday 09/14/04	Wednesday 09/15/04	Thursday 09/16/04
1 AM		15	16	14	26	8			
2 AM		5	11	7	18	9			
3 AM		4	4	5	5	4			
4 AM		10	13	7	10	7			
5 AM		13	15	17	9	14			
6 AM		34	29	16	17	41			
7 AM		141	131	62	42	128			
8 AM		173	167	78	52	181			
9 AM		206	234	166	93	190			
10 AM	249	228	236	251	172				
11 AM	208	261	315	344	290				
12 PM	320	265	284	352	369				
1 PM	321	348	357	410	359				
2 PM	338	325	369	402	390				
3 PM	320	303	353	389	369				
4 PM	273	255	315	341	306				
5 PM	295	281	294	339	245				
6 PM	315	309	354	313	187				
7 PM	300	330	357	259	172				
8 PM	273	278	368	292	143				
9 PM	192	214	225	234	124				
10 PM	163	110	133	128	72				
11 PM	72	75	87	87	41				
12 AM	27	30	52	51	29				
4,213									

SEASONAL FACTOR:	0.946	AADT:	3,985	AM Peak %	6.3	Hour Ending	12:00 PM
AXLE CORR. FACTOR:	0.988			PM Peak %	8.3	Hour Ending	1:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/8/2004

ROAD: CAULFIELD AVE FROM: MADISON DR TO: NJ TPKE OVP
 COUNTY: GLOUCESTER MCD: 318 - DEPTFORD TOWNSHIP SR/SEG/OFF: // FC: 19
 PROJECT: 543-310 COUNT DIR: NORTH TRAFFIC DIR: S TO N SPEED LIMIT: 45
 STATION ID: DVRPC FILE #: 16511 COUNTER #: 340 WEATHER: F

HOURLY ENDING	Wednesday 09/08/04	Thursday 09/09/04	Friday 09/10/04	Saturday 09/11/04	Sunday 09/12/04	Monday 09/13/04	Tuesday 09/14/04	Wednesday 09/15/04	Thursday 09/16/04
1 AM		3	2	7	10	2			
2 AM		1	1	5	1	1			
3 AM		0	1	3	3	0			
4 AM		3	3	0	5	2			
5 AM		4	7	2	3	4			
6 AM		12	12	4	5	8			
7 AM		22	19	7	1	26			
8 AM		83	84	18	11	93			
9 AM		121	94	25	15				
10 AM	26	38	41	54	19				
11 AM	42	32	43	54	40				
12 PM	56	58	52	66	64				
1 PM	84	59	70	88	77				
2 PM	53	66	59	81	73				
3 PM	59	78	70	72	86				
4 PM	70	59	90	76	66				
5 PM	81	101	82	78	60				
6 PM	95	96	108	50	41				
7 PM	70	76	76	44	30				
8 PM	51	54	54	48	30				
9 PM	39	47	61	29	20				
10 PM	25	21	25	31	12				
11 PM	11	8	20	11	9				
12 AM	3	7	11	17	5				
1,049									

SEASONAL FACTOR:	0.946	AADT:	992	AM Peak %	11.5	Hour Ending	9:00 AM
AXLE CORR. FACTOR:	0.988			PM Peak %	9.6	Hour Ending	5:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/8/2004

ROAD: CAULFIELD AVE FROM: MADISON DR TO: NJ TPKE OVP
 COUNTY: GLOUCESTER MCD: 318 - DEPTFORD TOWNSHIP SR/SEG/OFF: // FC: 19
 PROJECT: 543-310 COUNT DIR: SOUTH TRAFFIC DIR: S TO N SPEED LIMIT: 45
 STATION ID: DVRPC FILE #: 16512 COUNTER #: 341 WEATHER: F

HOUR ENDING	Wednesday 09/08/04	Thursday 09/09/04	Friday 09/10/04	Saturday 09/11/04	Sunday 09/12/04	Monday 09/13/04	Tuesday 09/14/04	Wednesday 09/15/04	Thursday 09/16/04
1 AM		5	0	4	5	1			
2 AM		3	3	2	4	1			
3 AM		2	0	5	8	4			
4 AM		2	5	4	2	2			
5 AM		0	1	4	3	1			
6 AM		9	5	3	0	5			
7 AM		23	24	7	3	23			
8 AM		42	41	12	8	28			
9 AM		38	30	36	14				
10 AM	41	34	36	46	24				
11 AM	42	23	35	45	35				
12 PM	50	36	27	67	51				
1 PM	46	46	56	57	62				
2 PM	28	53	41	55	43				
3 PM	44	47	53	57	41				
4 PM	62	55	65	47	34				
5 PM	82	85	81	60	29				
6 PM	105	101	104	32	17				
7 PM	67	66	79	37	27				
8 PM	44	48	52	24	14				
9 PM	26	29	37	22	17				
10 PM	17	12	21	19	10				
11 PM	12	12	12	8	10				
12 AM	4	11	12	11	4				
782									

SEASONAL FACTOR:	0.946	AADT:	740	AM Peak %	5.4	Hour Ending	8:00 AM
AXLE CORR. FACTOR:	0.988			PM Peak %	12.9	Hour Ending	6:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/8/2004

ROAD: NJ 41 HURFVILLE RD FROM: COOPER ST TO: MAYFAIR AVE
 COUNTY: GLOUCESTER MCD: 318 - DEPTFORD TOWNSHIP SR/SEG/OFF: // FC: 16
 PROJECT: 543-310 COUNT DIR: NORTH TRAFFIC DIR: S TO N SPEED LIMIT: 35
 STATION ID: DVRPC FILE #: 16513 COUNTER #: 241 WEATHER: F

HOURLY ENDING	Wednesday 09/08/04	Thursday 09/09/04	Friday 09/10/04	Saturday 09/11/04	Sunday 09/12/04	Monday 09/13/04	Tuesday 09/14/04	Wednesday 09/15/04	Thursday 09/16/04
1 AM		20	33	85	86	31	32		
2 AM		18	20	49	47	14	14		
3 AM		17	20	33	31	14	18		
4 AM		32	26	28	24	33	27		
5 AM		57	68	39	30	71	71		
6 AM		211	187	82	39	201	202		
7 AM		663	592	151	73	613	620		
8 AM		876	799	310	177	883	904		
9 AM	673	793	660	402	312	684	701		
10 AM	651	618	636	586	429	595	616		
11 AM	568	571	647	724	647	594	579		
12 PM	648	569	673	841	789	623	633		
1 PM	687	618	711	885	817	620			
2 PM	674	608	745	758	820	663			
3 PM	580	584	655	801	851	560			
4 PM	562	616	655	779	734	576			
5 PM	613	671	644	740	576	591			
6 PM	560	623	643	658	502	582			
7 PM	628	665	671	622	412	559			
8 PM	569	548	626	553	414	533			
9 PM	420	311	428	427	274	369			
10 PM	210	229	317	291	167	195			
11 PM	137	110	219	199	104	110			
12 AM	69	75	174	138	72	63			
10,103									

SEASONAL FACTOR:	0.944	AADT:	9,537	AM Peak %	8.7	Hour Ending	8:00 AM
AXLE CORR. FACTOR:	0.976			PM Peak %	6.6	Hour Ending	5:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/8/2004

ROAD: NJ 41 HURFVILLE RD

FROM: COOPER ST

TO: MAYFAIR AVE

COUNTY: GLOUCESTER

MCD: 318 - DEPTFORD TOWNSHIP

SR/SEG/OFF: //

FC: 16

PROJECT: 543-310

COUNT DIR: SOUTH

TRAFFIC DIR: S TO N

SPEED LIMIT: 35

STATION ID:

DVRPC FILE #: 16514

COUNTER #: 243

WEATHER: F

Hour Ending	Wednesday 09/08/04	Thursday 09/09/04	Friday 09/10/04	Saturday 09/11/04	Sunday 09/12/04	Monday 09/13/04	Tuesday 09/14/04	Wednesday 09/15/04	Thursday 09/16/04
1 AM		49	39	112	109	40	39		
2 AM		23	34	51	44	29	25		
3 AM		25	25	45	51	15	19		
4 AM		25	17	30	30	17	26		
5 AM		22	28	34	32	22	20		
6 AM		53	56	27	14	41	53		
7 AM		153	155	82	47	148	159		
8 AM		273	261	157	82	291	267		
9 AM	393	325	310	253	176	337	332		
10 AM	357	352	372	411	312	361	377		
11 AM	449	436	513	618	428	539	441		
12 PM	552	580	599	752	647	577	568		
1 PM	623	636	684	760	750	629			
2 PM	732	659	720	771	791	644			
3 PM	687	662	788	777	809	714			
4 PM	723	678	763	764	842	725			
5 PM	728	801	778	781	783	743			
6 PM	707	805	762	749	638	767			
7 PM	733	712	747	707	530	680			
8 PM	750	767	700	708	491	734			
9 PM	707	617	729	669	365	612			
10 PM	390	383	573	542	190	409			
11 PM	186	192	337	287	118	185			
12 AM	85	94	186	200	74	83			
		9,322							

SEASONAL FACTOR:	0.944	AADT:	8,800	AM Peak %	6.2	Hour Ending	12:00 PM
AXLE CORR. FACTOR:	0.976			PM Peak %	8.6	Hour Ending	6:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/8/2004

ROAD: NJ 47 DELSEA DR FROM: COOPER ST TO: KOHLER AVE
 COUNTY: GLOUCESTER MCD: 318 - DEPTFORD TOWNSHIP SR/SEG/OFF: // FC: 16
 PROJECT: 543-310 COUNT DIR: NORTH TRAFFIC DIR: S TO N SPEED LIMIT: 40
 STATION ID: DVRPC FILE #: 16515 COUNTER #: 252 WEATHER: F

HOURLY ENDING	Wednesday 09/08/04	Thursday 09/09/04	Friday 09/10/04	Saturday 09/11/04	Sunday 09/12/04	Monday 09/13/04	Tuesday 09/14/04	Wednesday 09/15/04	Thursday 09/16/04
1 AM		58	59	126	117	62			
2 AM		39	47	60	66	29			
3 AM		17	24	53	61	20			
4 AM		40	49	48	37	34			
5 AM		81	90	52	33	83			
6 AM		276	263	104	59	275			
7 AM		834	788	216	118	824			
8 AM		1,170	1,112	335	170	1,220			
9 AM		1,072	975	409	238				
10 AM	683	610	602	552	369				
11 AM	582	478	539	573	474				
12 PM	616	548	568	610	545				
1 PM	575	544	558	591	638				
2 PM	576	600	677	560	628				
3 PM	607	707	717	569	597				
4 PM	615	637	683	578	629				
5 PM	617	664	667	597	497				
6 PM	655	646	681	499	462				
7 PM	551	591	611	463	475				
8 PM	432	516	534	413	452				
9 PM	431	423	409	428	394				
10 PM	317	283	324	357	367				
11 PM	173	223	302	259	171				
12 AM	101	108	208	221	87				
		11,165							

SEASONAL FACTOR:	0.944	AADT:	10,540	AM Peak %	10.5	Hour Ending	8:00 AM
AXLE CORR. FACTOR:	0.976			PM Peak %	6.3	Hour Ending	3:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/8/2004

ROAD: NJ 47 DELSEA DR

FROM: COOPER ST

TO: KOHLER AVE

COUNTY: GLOUCESTER

MCD: 318 - DEPTFORD TOWNSHIP

SR/SEG/OFF: //

FC: 16

PROJECT: 543-310

COUNT DIR: SOUTH

TRAFFIC DIR: S TO N

SPEED LIMIT: 40

STATION ID:

DVRPC FILE #: 16516

COUNTER #: 255

WEATHER: F

HOUR ENDING	Wednesday 09/08/04	Thursday 09/09/04	Friday 09/10/04	Saturday 09/11/04	Sunday 09/12/04	Monday 09/13/04	Tuesday 09/14/04	Wednesday 09/15/04	Thursday 09/16/04
1 AM		71	82	177	165	81			
2 AM		43	37	103	93	33			
3 AM		34	33	80	84	28			
4 AM		21	36	40	58	22			
5 AM		38	40	37	34	39			
6 AM		110	124	84	52	116			
7 AM		284	294	138	66	283			
8 AM		526	516	293	124	574			
9 AM		534	554	380	259				
10 AM	490	448	484	511	286				
11 AM	536	461	533	565	460				
12 PM	547	538	577	611	498				
1 PM	600	561	627	639	611				
2 PM	579	590	671	623	531				
3 PM	613	622	708	542	519				
4 PM	772	841	872	535	496				
5 PM	859	944	936	512	433				
6 PM	869	893	937	526	430				
7 PM	786	799	818	471	402				
8 PM	477	466	662	465	426				
9 PM	402	416	413	360	360				
10 PM	320	280	411	324	244				
11 PM	192	213	289	229	251				
12 AM	130	163	244	244	116				
		9,896							

SEASONAL FACTOR:	0.944	AADT:	9,342	AM Peak %	5.4	Hour Ending	12:00 PM
AXLE CORR. FACTOR:	0.976			PM Peak %	9.5	Hour Ending	5:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/8/2004

ROAD: CR 534 COOPER ST

FROM: N. WALKER

TO: LEE AVE

COUNTY: GLOUCESTER

MCD: 318 - DEPTFORD TOWNSHIP

SR/SEG/OFF: //

FC: 14

PROJECT: 543-310

COUNT DIR: EAST

TRAFFIC DIR: W TO E

SPEED LIMIT: 35

STATION ID:

DVRPC FILE #: 16517

COUNTER #: 254

WEATHER: F

HOUR ENDING	Wednesday 09/08/04	Thursday 09/09/04	Friday 09/10/04	Saturday 09/11/04	Sunday 09/12/04	Monday 09/13/04	Tuesday 09/14/04	Wednesday 09/15/04	Thursday 09/16/04
1 AM		90	108	169	193	87			
2 AM		55	58	89	96	56			
3 AM		30	37	70	88	31			
4 AM		44	47	52	63	37			
5 AM		47	71	46	28	63			
6 AM		206	196	99	55	191			
7 AM		420	429	198	106	408			
8 AM		696	677	353	223				
9 AM		728	749	570	348				
10 AM	793	859	849	889	544				
11 AM	789	923	1,044	1,105	985				
12 PM	1,045	1,021	1,076	1,243	1,139				
1 PM	1,120	1,054	1,120	1,290	1,266				
2 PM	1,015	981	1,119	1,261	1,101				
3 PM	1,042	986	1,106	1,168	1,050				
4 PM	1,114	1,109	1,237	1,103	1,062				
5 PM	1,207	1,273	1,347	1,061	813				
6 PM	1,250	1,350	1,356	973	697				
7 PM	1,316	1,182	1,323	951	595				
8 PM	1,048	918	1,123	897	602				
9 PM	641	587	728	617	503				
10 PM	430	378	539	478	398				
11 PM	249	223	375	332	231				
12 AM	164	160	287	263	145				
		15,320							

SEASONAL FACTOR:	0.923	AADT:	14,140	AM Peak %	6.7	Hour Ending	12:00 PM
AXLE CORR. FACTOR:	0.943			PM Peak %	8.8	Hour Ending	6:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/8/2004

ROAD: CR 534 COOPER ST

FROM: N. WALKER

TO: LEE AVE

COUNTY: GLOUCESTER

MCD: 318 - DEPTFORD TOWNSHIP

SR/SEG/OFF: //

FC: 14

PROJECT: 543-310

COUNT DIR: WEST

TRAFFIC DIR: W TO E

SPEED LIMIT: 35

STATION ID:

DVRPC FILE #: 16518

COUNTER #: 246

WEATHER: F

Hour Ending	Wednesday 09/08/04	Thursday 09/09/04	Friday 09/10/04	Saturday 09/11/04	Sunday 09/12/04	Monday 09/13/04	Tuesday 09/14/04	Wednesday 09/15/04	Thursday 09/16/04
1 AM		101	120	209	198	70			
2 AM		49	60	109	109	60			
3 AM		54	40	115	105	28			
4 AM		51	52	79	69	50			
5 AM		92	91	84	61	104			
6 AM		275	264	131	84	260			
7 AM		655	648	225	144	668			
8 AM		1,044	994	432	214				
9 AM		1,087	947	604	299				
10 AM	897	804	789	777	525				
11 AM	849	840	983	925	748				
12 PM	968	925	1,069	1,117	974				
1 PM	1,027	1,073	1,220	1,163	1,133				
2 PM	1,172	1,106	1,175	1,181	1,216				
3 PM	1,144	1,190	1,273	1,220	1,214				
4 PM	1,132	1,124	1,187	1,238	1,372				
5 PM	1,222	1,142	1,303	1,230	1,063				
6 PM	1,209	1,228	1,205	1,132	977				
7 PM	1,156	1,099	1,097	1,025	895				
8 PM	1,085	1,064	1,113	1,024	824				
9 PM	958	903	1,021	899	590				
10 PM	695	631	865	816	448				
11 PM	336	352	535	535	257				
12 AM	162	176	346	349	171				
		17,065							

SEASONAL FACTOR:	0.923	AADT:	15,751	AM Peak %	6.4	Hour Ending	9:00 AM
AXLE CORR. FACTOR:	0.943			PM Peak %	7.2	Hour Ending	6:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/8/2004

ROAD: NJ 47 DELSEA DR

FROM: BENNETT DR

TO: LINDBERG DR

COUNTY: GLOUCESTER

MCD: 318 - DEPTFORD TOWNSHIP

SR/SEG/OFF: //

FC: 16

PROJECT: 543-310

COUNT DIR: NORTH

TRAFFIC DIR: S TO N

SPEED LIMIT:

STATION ID:

DVRPC FILE #: 16519

COUNTER #: 9862

WEATHER: F

HOURLY ENDING	Wednesday 09/08/04	Thursday 09/09/04	Friday 09/10/04	Saturday 09/11/04	Sunday 09/12/04	Monday 09/13/04	Tuesday 09/14/04	Wednesday 09/15/04	Thursday 09/16/04
1 AM		23	39	54	60	20			
2 AM		18	18	35	58	17			
3 AM		18	29	33	31	22			
4 AM		44	52	38	27	54			
5 AM		172	168	82	44	174			
6 AM		582	560	146	82	578			
7 AM		849	842	229	106	880			
8 AM		803	710	324	152				
9 AM	366	504	466	414	272				
10 AM	446	430	492	460	382				
11 AM	488	422	466	503	496				
12 PM	462	465	496	558	522				
1 PM	481	487	568	496	530				
2 PM	535	650	546	490	522				
3 PM	546	516	586	488	516				
4 PM	538	504	574	430	446				
5 PM	576	562	576	406	334				
6 PM	482	453	482	388	332				
7 PM	365	378	420	330	362				
8 PM	327	296	270	300	351				
9 PM	217	222	237	254	418				
10 PM	128	174	215	178	162				
11 PM	82	72	183	162	70				
12 AM	50	54	99	82	47				
		8,698							

SEASONAL FACTOR:	0.944	AADT:	8,211	AM Peak %	9.8	Hour Ending	7:00 AM
AXLE CORR. FACTOR:	0.976			PM Peak %	7.5	Hour Ending	2:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/8/2004

ROAD: NJ 47 DELSEA DR

FROM: BENNETT DR

TO: LINDBERG DR

COUNTY: GLOUCESTER

MCD: 318 - DEPTFORD TOWNSHIP

SR/SEG/OFF: //

FC: 16

PROJECT: 543-310

COUNT DIR: SOUTH

TRAFFIC DIR: S TO N

SPEED LIMIT:

STATION ID:

DVRPC FILE #: 16520

COUNTER #: 9945

WEATHER: F

Hour Ending	Wednesday 09/08/04	Thursday 09/09/04	Friday 09/10/04	Saturday 09/11/04	Sunday 09/12/04	Monday 09/13/04	Tuesday 09/14/04	Wednesday 09/15/04	Thursday 09/16/04
1 AM		30	29	79	60	26			
2 AM		31	36	60	62	28			
3 AM		16	15	34	52	11			
4 AM		30	34	32	24	40			
5 AM		87	84	53	47	90			
6 AM		206	238	114	74	220			
7 AM		435	405	238	100	418			
8 AM		426	402	310	196				
9 AM	270	422	424	404	253				
10 AM	410	432	457	454	328				
11 AM	451	426	492	509	414				
12 PM	493	471	525	564	471				
1 PM	486	484	564	488	476				
2 PM	518	560	658	508	488				
3 PM	676	700	777	462	490				
4 PM	752	832	812	404	443				
5 PM	814	864	836	423	420				
6 PM	756	694	762	424	402				
7 PM	440	420	543	364	424				
8 PM	353	314	424	336	323				
9 PM	321	254	312	280	214				
10 PM	192	211	242	242	170				
11 PM	112	136	226	190	104				
12 AM	56	78	145	134	64				
		8,559							

SEASONAL FACTOR:	0.944	AADT:	8,080	AM Peak %	5.5	Hour Ending	12:00 PM
AXLE CORR. FACTOR:	0.976			PM Peak %	10.1	Hour Ending	5:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/9/2004

ROAD: NJ 41 HURFVILLE RD

FROM: DEPTFORD CENTER RD

TO: MELVINA RD

COUNTY: GLOUCESTER

MCD: 318 - DEPTFORD TOWNSHIP

SR/SEG/OFF: //

FC: 16

PROJECT: 543-310 COUNT DIR: NORTH TRAFFIC DIR: S TO N

SPEED LIMIT:

STATION ID: DVRPC FILE #: 16521

COUNTER #:

WEATHER: F

HOURLY ENDING	Thursday 09/09/04	Friday 09/10/04	Saturday 09/11/04	Sunday 09/12/04	Monday 09/13/04	Tuesday 09/14/04	Wednesday 09/15/04	Thursday 09/16/04	Friday 09/17/04
1 AM	23	36	90	87	37				
2 AM	17	18	53	59	18				
3 AM	16	21	35	39	18				
4 AM	29	24	30	24	25				
5 AM	48	58	38	30	48				
6 AM	175	163	63	38	161				
7 AM	584	517	122	59	532				
8 AM	780	762	257	145	745				
9 AM	528	603	360	237	624				
10 AM	587	586	484	344	566				
11 AM	500	615	668	608	552				
12 PM	583	637	742	733	566				
1 PM	617	683	811	743	596				
2 PM	572	721	747	769	636				
3 PM	551	676	756	761	556				
4 PM	636	643	724	731	578				
5 PM	645	652	727	594	556				
6 PM	625	627	667	551	562				
7 PM	655	621	647	445	577				
8 PM	587	640	619	433	580				
9 PM	378	482	469	311	406				
10 PM	259	379	339	195	219				
11 PM	145	252	230	112	136				
12 AM	79	183	157	69	71				

10,599

SEASONAL FACTOR:	0.944	AADT:	10,005	AM Peak %	7.2	Hour Ending	8:00 AM
AXLE CORR. FACTOR:	0.976			PM Peak %	6.8	Hour Ending	2:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/9/2004

ROAD: NJ 41 HURFVILLE RD

FROM: DEPTFORD CENTER RD

TO: MELVINA RD

COUNTY: GLOUCESTER

MCD: 318 - DEPTFORD TOWNSHIP

SR/SEG/OFF: //

FC: 16

PROJECT: 543-310 COUNT DIR: SOUTH TRAFFIC DIR: S TO N

SPEED LIMIT:

STATION ID: DVRPC FILE #: 16522

COUNTER #:

WEATHER: F

Hour Ending	Thursday 09/09/04	Friday 09/10/04	Saturday 09/11/04	Sunday 09/12/04	Monday 09/13/04	Tuesday 09/14/04	Wednesday 09/15/04	Thursday 09/16/04	Friday 09/17/04
1 AM	53	43	108	112	41				
2 AM	23	33	50	50	30				
3 AM	26	28	43	55	16				
4 AM	27	18	33	30	14				
5 AM	32	32	31	32	29				
6 AM	67	71	42	19	56				
7 AM	170	184	84	53	175				
8 AM	285	264	157	109	280				
9 AM	319	313	273	205	338				
10 AM	346	404	408	340	369				
11 AM	467	521	601	447	555				
12 PM	574	605	723	610	555				
1 PM	643	702	718	709	624				
2 PM	632	696	746	733	634				
3 PM	643	765	717	739	663				
4 PM	705	765	748	838	663				
5 PM	760	769	759	754	702				
6 PM	782	774	764	639	735				
7 PM	748	745	712	518	695				
8 PM	729	676	719	468	757				
9 PM	578	701	651	357	568				
10 PM	372	536	490	190	371				
11 PM	166	332	275	114	168				
12 AM	95	177	195	68	83				

10,154

SEASONAL FACTOR:	0.944	AADT:	9,585	AM Peak %	6.0	Hour Ending	12:00 PM
AXLE CORR. FACTOR:	0.976			PM Peak %	7.6	Hour Ending	6:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/30/2004

ROAD: CR 534 COOPER ST

FROM: DELSEA DR

TO: CAPE MAY AVE

COUNTY: GLOUCESTER

MCD: 318 - DEPTFORD TOWNSHIP

SR/SEG/OFF: //

FC: 14

PROJECT: 543-310

COUNT DIR: EAST

TRAFFIC DIR: W TO E

SPEED LIMIT: 40

STATION ID:

DVRPC FILE #: 16523

COUNTER #: 0246

WEATHER: F

HOURLY ENDING	Thursday 09/30/04	Friday 10/01/04	Saturday 10/02/04	Sunday 10/03/04	Monday 10/04/04	Tuesday 10/05/04	Wednesday 10/06/04	Thursday 10/07/04	Friday 10/08/04
1 AM		103	174	151	60	102			
2 AM		56	98	98	24	35			
3 AM		35	56	67	21	27			
4 AM		50	69	55	38	44			
5 AM		78	45	46	57	61			
6 AM		215	82	63	219	225			
7 AM		454	199	123	479	496			
8 AM		696	401	205	715	723			
9 AM		775	606	356	736				
10 AM		793	887	554	769				
11 AM		878	1,012	910	848				
12 PM		931	1,166	954	915				
1 PM	922	1,138	1,137	1,055	926				
2 PM	882	1,013	1,138	926	923				
3 PM	921	969	1,061	825	869				
4 PM	966	975	984	784	1,005				
5 PM	979	981	981	899	1,000				
6 PM	988	983	929	685	1,017				
7 PM	950	1,056	838	601	942				
8 PM	731	955	735	522	714				
9 PM	509	617	478	342	496				
10 PM	393	455	393	219	307				
11 PM	238	345	344	182	183				
12 AM	155	253	245	115	131				
		14,804							

SEASONAL FACTOR:	0.933	AADT:	13,812	AM Peak %	6.3	Hour Ending	12:00 PM
AXLE CORR. FACTOR:	0.943			PM Peak %	7.7	Hour Ending	1:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/30/2004

ROAD: CR 534 COOPER ST

FROM: DELSEA DR

TO: CAPE MAY AVE

COUNTY: GLOUCESTER

MCD: 318 - DEPTFORD TOWNSHIP

SR/SEG/OFF: //

FC: 14

PROJECT: 543-310

COUNT DIR: WEST

TRAFFIC DIR: W TO E

SPEED LIMIT: 40

STATION ID:

DVRPC FILE #: 16524

COUNTER #: 0247

WEATHER: F

HOURLY ENDING	Thursday 09/30/04	Friday 10/01/04	Saturday 10/02/04	Sunday 10/03/04	Monday 10/04/04	Tuesday 10/05/04	Wednesday 10/06/04	Thursday 10/07/04	Friday 10/08/04
1 AM		110	241	217	70	72			
2 AM		71	124	132	44	40			
3 AM		47	96	130	33	43			
4 AM		52	74	65	33	47			
5 AM		76	59	53	87	76			
6 AM		198	133	71	209	202			
7 AM		507	191	96	522	548			
8 AM		867	393	164	816	878			
9 AM		961	562	273	963				
10 AM		770	689	435	793				
11 AM		861	792	595	748				
12 PM		956	1,035	819	907				
1 PM	974	1,021	1,137	982	978				
2 PM	1,023	1,123	1,082	978	983				
3 PM	1,079	1,140	1,050	907	1,044				
4 PM	1,099	1,185	1,119	891	1,077				
5 PM	1,053	1,062	1,137	940	1,017				
6 PM	1,122	1,103	1,035	935	983				
7 PM	1,007	1,038	923	876	973				
8 PM	897	1,037	874	696	841				
9 PM	856	836	758	466	724				
10 PM	638	759	657	343	497				
11 PM	353	572	497	232	285				
12 AM	191	362	331	140	153				
		16,714							

SEASONAL FACTOR:	0.933	AADT:	15,594	AM Peak %	5.7	Hour Ending	9:00 AM
AXLE CORR. FACTOR:	0.943			PM Peak %	7.1	Hour Ending	4:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/30/2004

ROAD: NJ 41 HURFVILLE RD

FROM: CR 544

TO: BIG TIMBER CREEK

COUNTY: GLOUCESTER

MCD: 318 - DEPTFORD TOWNSHIP

SR/SEG/OFF: //

FC: 16

PROJECT: 543-310

COUNT DIR: NORTH

TRAFFIC DIR: S TO N

SPEED LIMIT: 35

STATION ID:

DVRPC FILE #: 16525

COUNTER #: 0392

WEATHER: F

Hour Ending	Thursday 09/30/04	Friday 10/01/04	Saturday 10/02/04	Sunday 10/03/04	Monday 10/04/04	Tuesday 10/05/04	Wednesday 10/06/04	Thursday 10/07/04	Friday 10/08/04
1 AM		134	63	241	64	63			
2 AM		95	36	170	46	26			
3 AM		25	26	146	38	12			
4 AM		35	15	97	46	21			
5 AM		58	46	48	52	38			
6 AM		174	83	53	156	144			
7 AM		617	150	82	663	678			
8 AM		1,126	287	136	1,225	1,177			
9 AM		877	390	267	1,163				
10 AM		592	592	392	631				
11 AM		764	756	693	674				
12 PM	774	790	915	842	732				
1 PM	904	980	1,020	1,054	862				
2 PM	929	1,041	955	1,004	905				
3 PM	971	1,142	1,017	899	1,027				
4 PM	1,061	1,157	987	923	1,026				
5 PM	1,128	1,146	959	935	1,041				
6 PM	994	1,127	930	990	996				
7 PM	931	982	905	835	855				
8 PM	1,001	955	881	748	886				
9 PM	835	886	729	472	734				
10 PM	576	157	660	336	509				
11 PM	371	159	500	236	235				
12 AM	219	84	332	141	89				
		15,103							

SEASONAL FACTOR:	0.958	AADT:	14,469	AM Peak %	7.5	Hour Ending	8:00 AM
AXLE CORR. FACTOR:	0.976			PM Peak %	7.7	Hour Ending	4:00 PM

8 DAY COUNTS

DVRPC - Travel Monitoring

DATE: 9/30/2004

ROAD: NJ 41 HURFVILLE RD

FROM: CR 544

TO: BIG TIMBER CREEK

COUNTY: GLOUCESTER

MCD: 318 - DEPTFORD TOWNSHIP

SR/SEG/OFF: //

FC: 16

PROJECT: 543-310

COUNT DIR: SOUTH

TRAFFIC DIR: S TO N

SPEED LIMIT: 35

STATION ID:

DVRPC FILE #: 16526

COUNTER #: 0254

WEATHER: F

HOURLY ENDING	Thursday 09/30/04	Friday 10/01/04	Saturday 10/02/04	Sunday 10/03/04	Monday 10/04/04	Tuesday 10/05/04	Wednesday 10/06/04	Thursday 10/07/04	Friday 10/08/04
1 AM		129	519	156	57	192			
2 AM		75	303	127	36	96			
3 AM		102	262	101	31	73			
4 AM		90	168	65	54	83			
5 AM		154	104	51	73	135			
6 AM		316	127	66	236	413			
7 AM		520	215	103	535	793			
8 AM		821	432	239	808	799			
9 AM		860	566	351	830				
10 AM		780	789	568	712				
11 AM		909	997	916	803				
12 PM	860	1,050	1,025	1,063	892				
1 PM	937	1,043	903	1,112	943				
2 PM	919	1,009	781	954	863				
3 PM	895	1,031	755	865	919				
4 PM	1,069	1,179	699	823	1,057				
5 PM	1,118	1,142	766	892	1,104				
6 PM	1,186	1,162	777	750	1,178				
7 PM	1,147	1,085	886	622	1,081				
8 PM	909	991	719	582	695				
9 PM	612	728	536	419	563				
10 PM	454	1,247	422	282	748				
11 PM	268	1,077	354	230	506				
12 AM	190	748	222	128	261				
		18,248							

SEASONAL FACTOR:	0.958	AADT:	17,482	AM Peak %	5.8	Hour Ending	12:00 PM
AXLE CORR. FACTOR:	0.976			PM Peak %	6.8	Hour Ending	10:00 PM

Title of Report: *Deptford Center Proposed Shuttle Bus Study*

Publication No.: 05007

Date Published: June 2005

Geographic Area Covered:

The study area includes or is adjacent to the following the northeastern section of Deptford Township in Gloucester County.

Key Words:

traffic volume, retail, shuttle bus, pedestrian facilities, employment centers, transit service, crashes, journey-to-work

ABSTRACT: *This is a traffic study of the Deptford Retail Area with the emphasis being on identifying potential routing and scheduling for an internal shuttle. This study was developed with input from Deptford Township as well as county and state agencies in the identification of transportation problems. Detailed field views and technical analysis were conducted to identify and quantify the transportation problems and document practical solutions. A detailed description for the operation of a shuttle bus in the area is presented which includes routing and scheduling. Current constraints and deficiencies to the successful operation of this proposed shuttle and necessary enhancements have been identified. Accompanying improvements to pedestrian facilities have been recommended.*

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