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## CONTACTS

Delaware Department of Transportation  
Mark Tudor  
800 Bay Road  
Dover, DE 19901  
mark.tudor@state.de.us

New Castle County  
John Janowski  
87 Reads Way  
New Castle, Delaware 19720  
jpjanowski@co.new-castle.de.us

Wilmington Area Planning Council  
Dan Blevins  
850 Library Avenue, Suite 100  
Newark, Delaware 19711  
dblevins@wilmapco.org

Delaware Transit Corporation  
Joe Watson  
119 Lower Beech Street, Suite 100  
Wilmington, Delaware 19805-4440  
joe.watson@state.de.us

## INTRODUCTION

The Route 40 Corridor Improvements Project was initiated by the Delaware Department of Transportation in partnership with New Castle County and WILMAPCO in September 1998. Completion of the first four steps of this project produced a community-supported 20-year transportation plan prepared under the direction of a Steering Committee composed of civic leaders, elected officials, and business interests. Technical support for plan development was provided by a project team, composed of the project partners' staffs and their planning and engineering consultants. The Route 40 Corridor 20-Year Transportation Plan (the Plan) was adopted on June 19, 2000.

The Plan addresses the conditions that are expected to result from projected growth in housing, employment and traffic over 20 years. The Plan contains projects, separated into three phases (Phase I 2000-2007, Phase II 2008-2013, Phase III 2014-2020), that address projected transportation problems. By phasing projects over 20 years and using a monitoring and triggering mechanism, projects will be built only as conditions dictate, addressing one of the main goals of Steering Committee.

The fifth and final step of the project, the implementation of the Plan recommendations, is now in its seventh year. This seventh annual Corridor Monitoring and Triggering Report is an essential component of this step. To assure that all projects in the Plan are implemented as conditions dictate—neither prior to the anticipated need, nor subject to unnecessary delay after need is identified—the Plan included an implementation strategy consisting of five components:

- Corridor preservation
- Monitoring
- Triggering
- Citizen involvement
- Project implementation

Citizen involvement is accomplished through a Corridor Monitoring Committee. This committee typically meets three or four times each year with the project team to review conditions in the corridor, which the project team monitors throughout the year. The monitoring efforts, which are summarized in this report, consider:

- Land development
- Traffic
- Corridor preservation
- Highway safety

- Transit service
- Project status
- Impact of completed projects
- Other projects in the region

Each of these factors is discussed in the following sections. The project team's assessment of these monitored conditions forms the basis for the triggering section of the report. Examples of triggering, as defined in the Plan, are listed below.

- Major land development activity would trigger immediate review of transportation needs: level of service implications and strategy, transit service needs or opportunities, safety concerns, and pedestrian and bicycle needs.
- Steady deterioration in level of service to D or worse would trigger a response in the form of strategies to stabilize/reduce demand (i.e. travel demand management measures or transit improvements) or increase capacity.
- Safety improvements recommended by the Highway Safety Improvements Program review team would trigger an evaluation by the project team of the compatibility of the proposed improvements with the Plan and of the need to make adjustments to the Plan.
- Transit service changes proposed by DTC would trigger an evaluation by the project team of any ancillary improvements needed to complement the service changes, such as sidewalks or shelters, that should be advanced in the Plan's implementation.
- Transportation improvements that are not part of the Plan but that impact the corridor and are proposed for implementation (for example, widening of Interstate 95) would trigger an evaluation by the project team. The evaluation would focus on compatibility of the proposed improvements with the Plan and the need to make adjustments to the Plan.

Assessment of these potential changes may trigger one of the following options to best respond to the new conditions:

- Continue with a Plan project or projects as currently scheduled in the TIP/CTP.
- Move a project(s) forward in the TIP/CTP schedule and determine appropriate level of effort for design activities.
- Move a project(s) back into the out years of the TIP/CTP schedule.

## MONITORING

### Land Development

#### Site Review Team

In previous years, development activity was monitored through meetings of the site review team, which consists of representatives from DelDOT, the New Castle County Department of Land Use, and the Delaware Transit Corporation. The site review team did not meet in 2006; however, the team continued to review development proposals for consistency with and impact to the Plan. The team's comments include recommendations in such areas as corridor preservation, access management, and cost-sharing opportunities.

#### Summary of Development Activity

During 2006, there were 28 new development plans (8 major, 16 minor, and 4 resubdivision/other) submitted to New Castle County for review in the Route 40 corridor. This level of development activity is slightly less than last year; however, there was an increase in the number of major development plans submitted. Table 1 provides a description and status of the current major development proposals, as well as other previously-submitted major plans discussed during the year. Major development locations are shown in Figure 1.

Review of thirteen major developments proposed before 2006 continued this year. Among those plans, one (St. Andrews Addition) was recorded during 2006. Among the remaining twelve major development plans, six are in the record plan submittal stage, four are in the preliminary submittal plan review stage, one is in the exploratory submittal plan review stage, and one expired. Additional impacts of other developments on the Plan are as follows:

- The proposed Lincoln Center development is located on a 56-acre portion of the property previously owned by JP Morgan Chase, adjacent to the core data center. The proposed development includes 124 townhomes, 372 condominiums and approximately 700,000 square feet of retail. DelDOT is working with the developer to include the McMullen Farm Park as part of the development and determine cost-sharing opportunities.
- The Sniadowski Farm subdivision is located on a 165-acre parcel along the north side of Reybold Road. A 209-lot age-restricted community is proposed. DelDOT is working with the developer

to include offsite transportation improvements along Reybold Road, including widening and constructing a segment of the multi-use path.

- Whittington Woods is a proposed 86-lot residential subdivision on two existing parcels totaling approximately 88 acres. The development is located on the former Whittington Sand and Gravel site approximately 2,500 feet west of Smalleys Dam Road. The property is surrounded by several existing subdivisions, including Calvarese Farms, where access will be provided. DelDOT is working with the developer to construct a segment of the proposed Newtown Trail.
- School Bell Crossing is a proposed development located on the south side of Route 40 at the intersection of School Bell Road. The development will include a 70,000 SF supermarket and 31,800 SF of retail. As part of the proposal, the developer will construct a fourth leg to the intersection at Route 40 and School Bell Road along with an access road for existing development along the south side of Route 40.
- DelDOT continues to work with the proposed Bear-Glasgow YMCA, now under construction, to complete the design and construction of George Williams Way, a roadway segment providing a connection between Aiken Avenue and Abbey Boulevard.
- As part of the preliminary approval for the Meridian Crossing II site, the developer is required to provide roadway improvements along Old Porter Road near the site entrance. One of these improvements includes realignment of the curve east of Lauren Farms. Final design is complete and construction is expected to be complete in 2007.
- Among many of the minor development plans new for 2006 and previously reviewed, DelDOT and New Castle County continue to consolidate access and recommend cross access agreements where feasible.

**Table 1.** Major Plans Received and/or Reviewed During 2006.

Site	Description	Remarks	New plan in 2006?
St. Andrews Addition	Add school and 261 mixed residential units	Recorded	No
Bible Fellowship Church of Newark	42,856 square feet church	Record Submittal	No
Steeple Glen	110 mixed residential units	Record Submittal	No
Bear-Glasgow Family YMCA	90,000 square feet commercial	Record Submittal	No
Old Baltimore Pike, L.L.C./Bradford Pond	32 lot age-restricted residential community	Record Submittal	No
Estates at Long Branch/Kang Farm	70 single-family houses	Record Submittal	No
Royal Farms	5,607 square feet commercial	Record Submittal	No
Dasher Farm	53 single family homes	Preliminary Submittal	No
Becks Woods Medical Plaza	67,500 square feet medical office	Preliminary Submittal	No
Glasgow Commons/W.L. Gore Site	1,646,157 square feet industrial/office	Preliminary Submittal	No
La Grange	224 lot commercial/residential	Preliminary Submittal	No
Christiana Self Storage	83,876 square feet self storage facility & 1,000 square feet office	Preliminary Submittal	Yes
Hershberger Property	84 apartments	Exploratory Submittal	No
School Bell Crossing Shopping Center	101,459 SF of retail	Exploratory Submittal	Yes
Sniadowski Farm	209 lot age-restricted community	Exploratory Submittal	Yes
Old State Road Hotel	Rezone property from S to CR	Exploratory Submittal	Yes
Dover Federal Credit Union	Bank	Exploratory Submittal	Yes
Whittington Woods	86 lot single family land development	Exploratory Submittal	Yes
Lincoln Center	Office, retail, and residential	Exploratory Submittal	Yes
T.P. # 11-014.00-037 & T.P. # 11-014.00-038	Eliminate lot line and subdivide into 14 lots	Exploratory Submittal	Yes
Lighthouse Baptist Church	21,322 square feet church	Expired	No

### Developer Agreements

In addition to those noted above, more than 35 land development projects in the Route 40 Corridor have developer agreements with the State or County regarding transportation improvements in the corridor. These improvements range from sidewalks to widening of roadways, signal agreements and significant right-of-way dedication. New Castle County continues to work with DeIDOT on a comprehensive tracking system for these agreements, which is used to coordinate private and DeIDOT-sponsored roadway improvements. Developer contributions throughout the corridor are highlighted in Figure 2.

### TIS Waivers / Fair Share Contributions

During 2005, New Castle County added a provision to its Unified Development Code allowing a waiver from the traffic impact study (TIS) process based on certain conditions. The most recent waiver applies only in Transportation Improvement Districts where a plan is already in place. Although there are officially no Transportation Improvement Districts (TID) in Delaware, the Route 40 corridor has many of the characteristics of a TID. The intent of such a waiver is to use the long-range transportation plan, rather than a TIS, to determine which transportation improvements should be the developer's responsibility.

Active development plans within the Route 40 corridor that have requested a TIS waiver include St. Andrews Addition, Dasher Farm, La Grange, Whittington Woods and Dover Federal Credit Union.

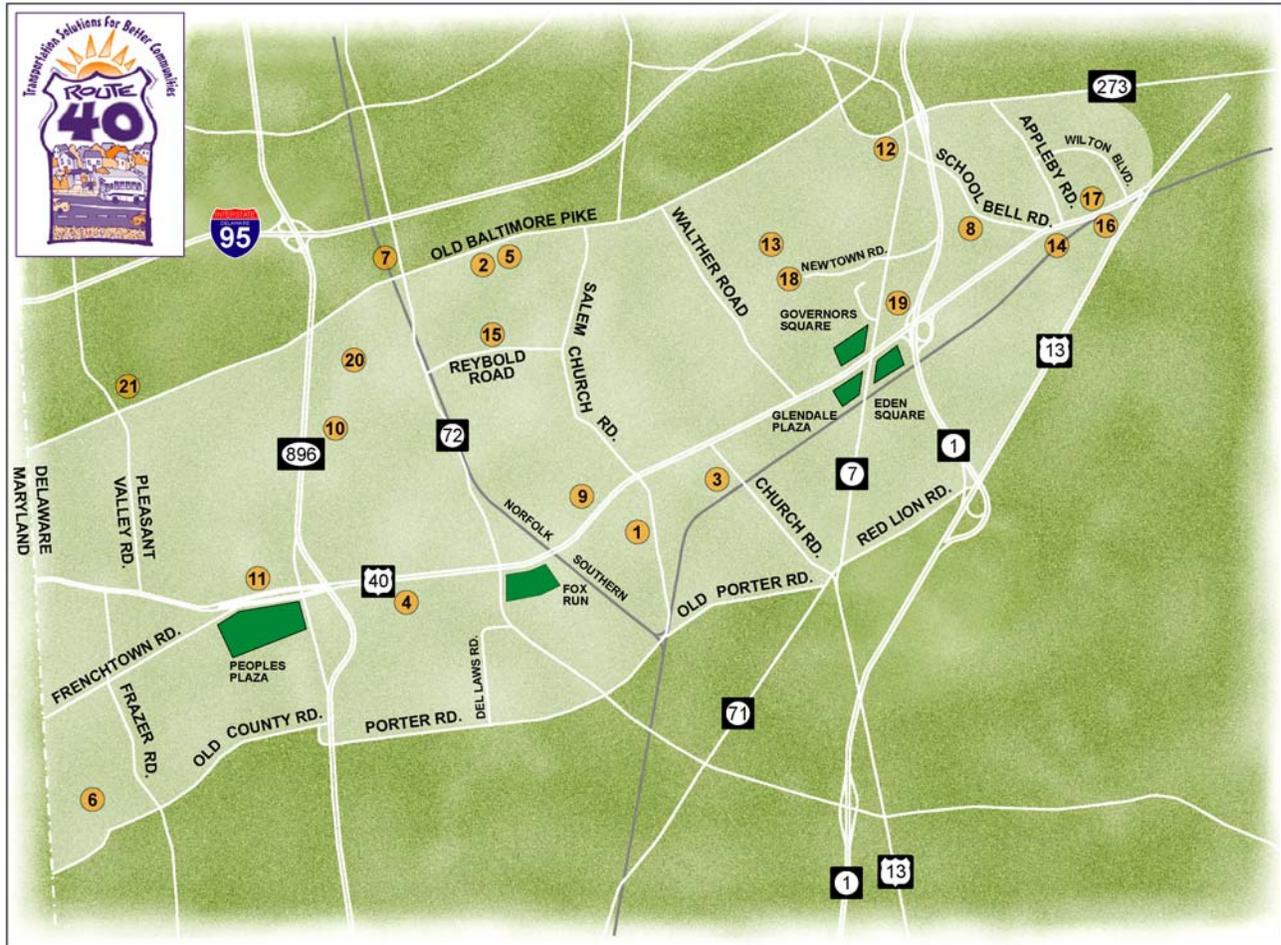
In 2006, due to the continuing increase in the number of applications for TIS waivers, DeIDOT began discussions on developing a standardized approach to addressing TIS waivers and a method to determine developers' fair share contributions. This has become a more prevalent issue because of the reduced funding available for transportation projects. The purpose is to develop a simple, yet defensible, approach to determine fair share contributions. The goal is to have developers fund DeIDOT's portion of the costs for the remaining Route 40 corridor improvements.

Traditionally, developer-funded transportation improvements and contributions have been determined on a development-by-development or project-by-project basis. Previous studies completed to address this issue were focused on localized capacity improvements; however, the Route 40 corridor improvements are more comprehensive and regional. Two basic methods were established initially to determine an approximate scope and provide comparisons to other projects where developer contributions were calculated.

The first method utilizes the DeIDOT Peninsula traffic model, which is an accepted, defensible model used for regional and statewide planning. The second method is based on the Institute of Transportation Engineers (ITE) *Trip Generation* approach, which follows a more traditional TIS-based methodology. The results indicate that the ITE trip generation approach is the ideal method. However, due to the scope of the Route 40 corridor improvements, implementation will require a significant effort.

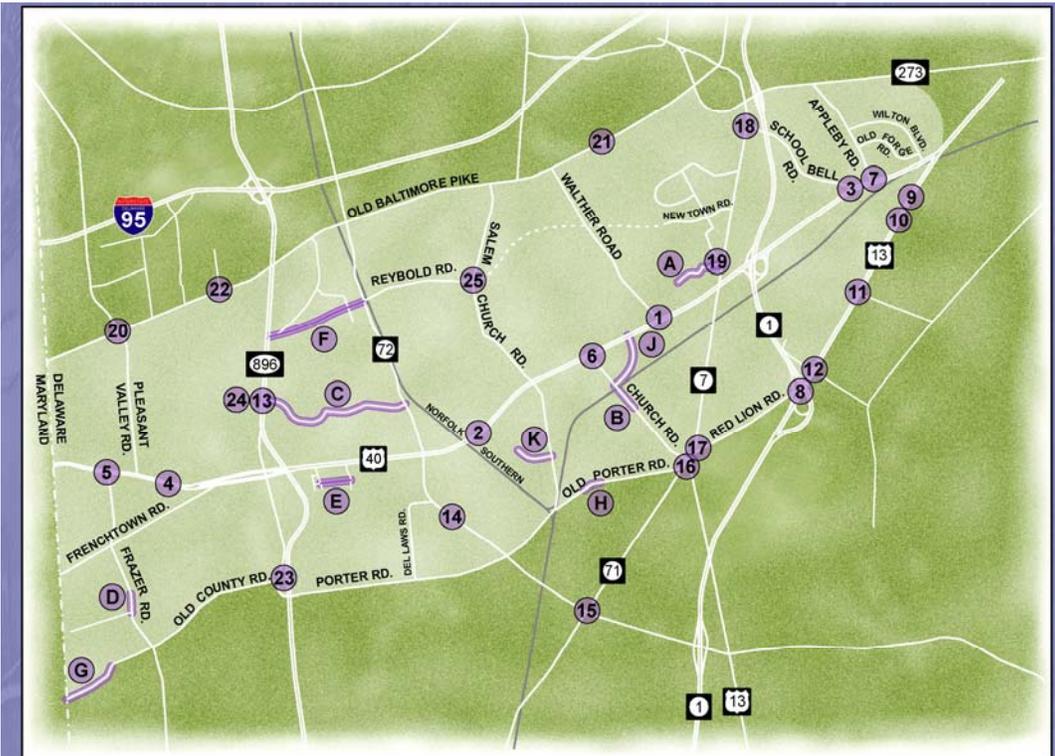
DeIDOT's approach to fair share contributions is expected to be resolved during 2007.

Figure 1. Major Development Location Map.



- |  |   |
|--|---|
| 1. St. Andrews Addition                    | 14. School Bell Crossing Shopping Center        |
| 2. Bible Fellowship Church of Newark       | 15. Sniadowski Farm                             |
| 3. Steeple Glen                            | 16. Old State Road Hotel                        |
| 4. Bear-Glasgow Family YMCA                | 17. Dover Federal Credit Union                  |
| 5. Old Baltimore Pike L.L.C./Bradford Pond | 18. Whittington Woods                           |
| 6. Estates at Long Branch/Kang Farm        | 19. Lincoln Center                              |
| 7. Royal Farms                             | 20. T.P. # 11-014.00-037 & T.P. # 11-014.00-038 |
| 8. Dasher Farm                             | 21. Lighthouse Baptist Church                   |
| 9. Becks Woods Medical Plaza               |   |
| 10. Glasgow Commons/W.L. Gore Site         |   |
| 11. La Grange                              |   |
| 12. Christiana Self Storage                |   |
| 13. Hershberger Property                   |   |

Figure 2. Developer Contributions.



KEY	INTERSECTION / ROAD	DEVELOPMENTS
1	US 40/Walther Road	Meridian Crossing, Village of Fox Meadow, Glennwood Station, Rockwood Apartments, Governors Square II, River Walk, Barrett Run, Governors Field
2	US 40/Scotland Drive	St. Andrews, St. Andrews Addition
3	US 40/School Bell Road	Wal-Mart
4	US 40/Perch Creek Drive	Kohl's
5	US 40/Frazer Road	St. Margaret of Scotland, Meritage
6	US 40/Church Road	Meridian Crossing
7	US 40/Appley Road	Wal-Mart
8	US 13/SR 71	Red Lion Mini-Storage
9	US 13/Schafer Boulevard	Mallard Pointe
10	US 13/Saienni Boulevard/Mallard Road	Mallard Pointe, Bayview Manor II, Chaddwyck
11	US 13/Federal School Lane	Chaddwyck
12	US 13/Bear-Tybout Road/Hamburg Road	Blue Diamond Recreation Park, Chaddwyck
13	SR 896/Corporate Boulevard/GBC Drive	Glasgow Business Community, Parcel 2C-2
14	SR 72/Mabel Lane	Caravel Academy
15	SR 71/SR 72	Willow Oak Farms, Red Lion Chase, Sunset Meadows, Red Lion Christian Academy, Sunset Run, Village of Red Lion Creek, Estates of Red Lion
16	SR 71/Church Road	Meridian Crossing
17	SR 7/SR 71	Love of Christ Church, Corbitt Estates, Estates of Red Lion, Peoples Industrial Park
18	SR 7/School Bell Road	School Bell Apartments
19	Songsmith Drive/Governors Square access	Calvarese Farms
20	Old Baltimore Pike/Otts Chapel Road/Pleasant Valley Road	Deerborne Woods
21	Old Baltimore Pike/Martha Washington Boulevard/Norwegian Woods Drive	Norwegian Woods
22	Old Baltimore Pike/Iron Hill Road	Preserve at Lafayette Hill
23	Glasgow Avenue/Old County Road	Meritage
24	Corporate Boulevard/Executive Drive	Pencader Corporate Center, Parcel 30A
25	Salem Church Road/Reybold Road	AstraZeneca
A	Carvel Drive traffic calming	Calvarese Farms
B	Church Road	Rockwood Apartments (frontage), Meridian Crossing (frontage)
C	GBC Drive (Dusk Run Road), SR 896 to SR 72	Gore (potential)
D	Frazer Road	Meritage (frontage shoulder)
E	US 40 service road/George Williams Way	YMCA
F	Newtown Road, SR 896 to SR 72	Gore (potential)
G	Old County Road	Estates at Long Branch (frontage, extending west to Maryland border)
H	Old Porter Road curve realignment	Meridian Crossing
J	Rockwood Drive	Rockwood Apartments
K	Scotland Drive extension, St. Andrews Road to Porter Road	St. Andrews Addition

## Traffic

To monitor traffic growth, the project team conducted full-day traffic counts on road segments using automatic tube counters. These segment counts were used to monitor overall trends, as opposed to intersection counts, which were used to measure levels of service. The segment counts were compared with the traffic information utilized during development of the Plan, which was developed from counts conducted primarily in 1998 and 1999, as well as counts conducted for Corridor Monitoring and Triggering Reports during 2000 through 2005. Average daily traffic (ADT) volumes are summarized in Table 2.

The Route 40 Plan anticipated that at the five locations shown in Table 2, traffic would increase by an average of about 1.8 percent per year through 2020. Current data indicate growth rates of about 1.9 percent per year, thus confirming current schedules and phasing of Plan projects (See Figure 4).

To compare current levels of service for intersections along US 40 to the levels of service used during the Plan development process, the project team conducted intersection counts during peak traffic hours at all signalized intersections on US 40 in November 2006. Unsignalized intersections were not counted because no improvements are included at these intersections in the Plan. It is assumed that any future signalization of these intersections, whether required due to land development or traffic growth, will have to meet intersection signalization warrants as required by DelDOT.

The traffic volumes collected at the signalized intersections were analyzed in a manner consistent with the traffic impact study process used by New Castle County and DelDOT. The results of the level of service (LOS) analysis are summarized in Table 3. As indicated, seven intersections had minor

degradation in levels of service from 2005 and five had slight improvement.

- The intersection of US 40 and Pleasant Valley Road worsened to LOS D for the first time in the AM peak but remained steady at LOS D in the PM.
- The intersection of US 40 with Glasgow Avenue (north) worsened to LOS D for the first time in the AM peak but improved to LOS D in the PM.
- The intersection of US 40 and Salem Church Road / Porter Road worsened to LOS F for the first time in the PM peak but remained steady at LOS D in the AM.
- The intersection of US 40 and Church Road returned to LOS D in the AM peak after improving in 2005. The intersection remained at LOS C in the PM peak.
- The intersection of US 40 and Walther Road returned to LOS D in the PM peak after improving in 2004 and 2005. The intersection remained at LOS C in the AM peak.
- Following the intersection widening improvements at US 40 and SR 7, the intersection improved to LOS D and LOS C in the AM and PM peaks, respectively.
- The LOS at US 40 and US 13 worsened to LOS E in the PM peak period for the first time.
- All other signalized intersections on US 40 operated at acceptable levels of service (D or better) during both peak hours.

The Route 40 Project Team initiated a “traffic signal audit” program in late 2005 to reduce congestion and travel times and improve safety along the entire length of Route 40. Opportunities to improve signal timing and other intersection operations were identified and are being implemented.

ROUTE 40 CORRIDOR IMPROVEMENTS

2006 Corridor Monitoring and Triggering Report

**Table 2.** Average Daily Traffic.

Location	Plan volumes (1998/1999)	2000 counts	2001 counts	2002 counts	2003 counts	2004 counts	2005 counts	Projected 2006 volumes	Actual 2006 volumes	Percentage over (under) projected	2020 forecast
East of Perch Creek Drive	34,000	29,000	36,700	36,800	35,800	37,100	33,800	39,100	39,600	1.3%	48,000
West of SR 72	29,000	27,000	31,400	28,900	30,000	32,600	30,500	36,600	34,500	-5.9%	50,000
West of Salem Church Road	32,000	34,000	42,200	38,600	36,500	42,700	39,500	39,300	40,800	3.8%	52,000
West of Walther Road	41,000	43,000	44,400	42,400	41,800	47,000	46,400	47,200	45,900	-2.6%	58,000
West of Wilton Boulevard	27,000	27,000	30,900	26,000	28,000	26,400	28,600	29,200	33,100	13.5%	33,000

**Table 3.** Signalized Intersection Level of Service Summary.

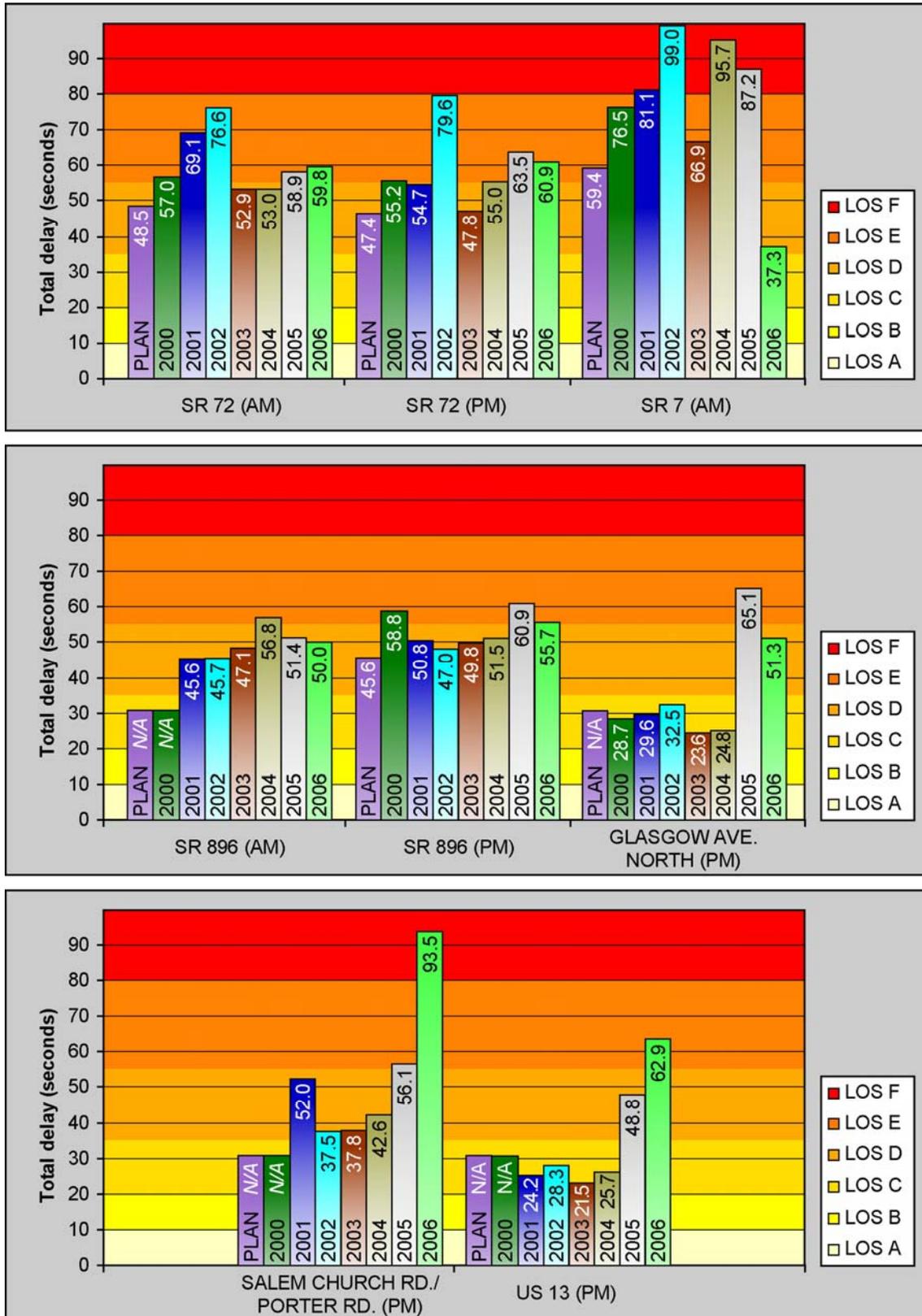
INTERSECTION	PEAK HOUR LEVEL OF SERVICE																	
	Base (1998/1999)		2000		2001		2002		2003		2004		2005		2006		2020 w/o the Plan	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Frazer Road	-	-	-	-	-	-	-	-	-	-	C	B	C	B	C	B	-	-
Pleasant Valley Road	C	C	C	C	C	C	C	D	C	D	C	D	C	D	D	D	F	F
Perch Creek Drive	-	-	B	A	B	B	B	B	B	B	B	B	B	B	B	B	-	-
Peoples Plaza north	B	C	A	B	B	C	A	B	A	A	A	C	A	A	A	A	B	C
Peoples Plaza south	B	B	B	C	B	C	B	C	B	C	B	C	C	D	C	D	B	C
Glasgow Avenue north	C	C	C	C	C	C	C	C	D	C	C	C	C	E	D	D	C	F
Glasgow Avenue south	C	D	B	C	B	C	C	C	C	B	C	C	C	D	C	C	C	E
SR 896	D	D	D	E	D	D	D	D	D	D	E	D	D	E	D	E	F	F
Aiken Avenue	-	-	-	-	-	-	-	-	-	-	-	-	A	A	A	B	-	-
SR 72	D	D	E	E	E	D	E	E	D	D	D	E	E	E	E	E	F	F
Scotland Drive	C	B	B	B	C	C	C	C	B	C	C	D	C	C	C	C	D	E
Salem Church/Porter Road	C	C	D	D	D	D	D	C	D	C	D	D	D	D	D	F	D	F
Brookmont Drive	B	B	B	B	B	B	A	B	A	B	B	B	B	B	B	B	B	E
Church Road	D	C	D	C	D	C	D	D	C*	B*	D	C	C	C	D	C	E	F
Walther Road	C	D	D	D	D	D	D	D	D	D	C	C	C	C	C	D	F	F
Governors Square	B	C	C	C	C	C	C	C	C	D	D	C	C	D	C	D	C	E
SR 7/Eden Square	E	D	E	D	F	C	F	D	E	D	F	C	F**	D**	D	C	F	F
SR 1 SB Ramps	A	A	A	A	B	B	B	B	B	B	B	B	A	A	A	A	A	B
SR 1 NB Ramps	B	B	B	A	C	B	B	B	C	B	C	B	B	A	A	A	B	E
Buckley Boulevard	-	-	B	B	B	B	B	B	B	B	B	B	B	C	B	C	-	-
School Bell Road	B	B	C	A	B	B	B	B	B	B	C	A	B	A	A	A	B	C
Wilton Boulevard	B	B	C	C	B	C	B	B	B	C	C	C	B	C	B	C	C	F
US 13	D	B	C	B	C	C	C	C	B	B	C	C	C	D	C	E	F	F

Note: Red denotes a worse level of service than 2005; green denotes improvement in level of service over 2005.

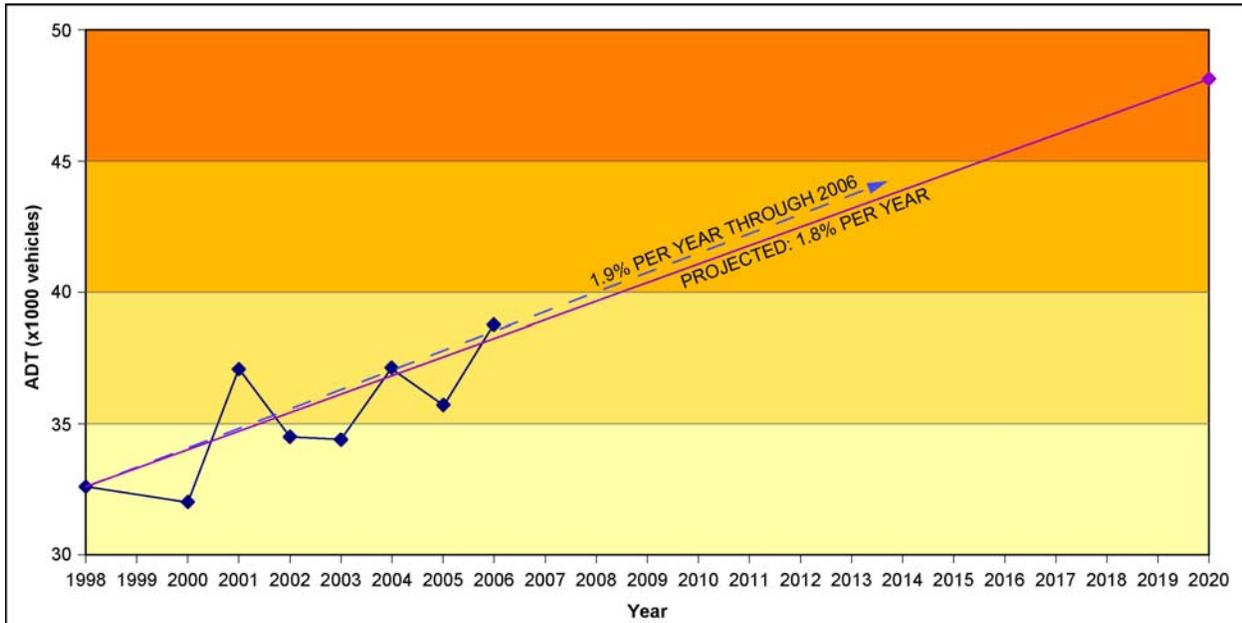
\* - During most of 2003, Church Road was closed to through traffic south of US 40.

\*\* - During all of 2005, SR 7 was under construction with major capacity improvements in place by fall 2006.

Figure 3. Level of Service Comparison at Selected Intersections.



**Figure 4.** Traffic Growth Along US 40 (average of five count locations).



## Corridor Preservation

As noted in the Land Development section, all development proposals in the corridor are acted upon by the site review team. For projects on US 40, sufficient right of way is required to accommodate widening to the outside and to provide area for sidepaths for pedestrian and bicycle use. The following specific corridor preservation efforts were also undertaken.

**Concept Design:** The Plan recommended preparing concept designs in the first stage of implementation to identify right of way needs. Although progress has been slowed by reduction of funds under DelDOT’s capital program, concept design continues for five Plan projects along US 40 between SR 896 and SR 1. An environmental assessment is being prepared for this area to obtain approval of the preferred widening alternative from federal and state agencies based on the level of environmental impact. When this document is approved, right-of-way needs will be more clearly defined within the study area. Upon completion of ongoing environmental studies, a final workshop will be held to present the preferred alternative to the public.

Concept design for a number of other projects is also underway, as detailed in the Project Status section of this report.

**Access Management on Developing Properties:** One of the goals of the Route 40 Plan was improved access, because clearly defined, properly spaced driveways improve highway mobility and safety. The site review team has had success in providing improved and/or shared access through the development process. Although fewer opportunities for access management were available in 2006 as compared to previous years, this philosophy continues to guide the Route 40 team through the site review process. One example includes the proposed School Bell Crossing development. The developer will construct the fourth leg of the intersection at Route 40 and School Bell Road and an access road for existing and proposed commercial development along Route 40. This will eliminate the existing direct access to Route 40 for sites such as the Goddard School, which was discussed in the 2005 CMTR.

## Highway Safety

### Review of Conditions in 2006

The goal of this report with respect to safety is to determine those intersections where crash rates increased in the past year, identify the reasons for those increases, and pass those sites on to the Route 40 Safety Committee for detailed study and improvement recommendations. To determine priorities for potential safety improvements, eleven years of crash summary data were analyzed for all roadways in the Route 40 corridor. The number of crashes in the past year at each intersection was compared to the average number of annual crashes at that same location for all previous study years. This was the eleventh year of crash data studied in the corridor.

The results of the analysis indicate that there are two intersections in the corridor where the most recent crash data was more than 50 percent higher than the previous ten-year average.

- US 40 at SR 72
- US 40 at Peoples Plaza Shopping Center

#### *US 40 at SR 72*

Crash rates at this location increased for the third straight year and have reached a ten-year high. Final design of the intersection improvements at this location will continue in 2007. Safety studies have been ongoing during the design and crash trends will be monitored during and after reconstruction.

#### *US 40 at Peoples Plaza Shopping Center*

Crash rates increased for the fourth consecutive year at US 40 and Peoples Plaza Shopping Center. A detailed safety analysis at this location is recommended during 2007.

### Results of Previous Studies

#### *US 40 at Salem Church Road/Porter Road*

The intersection at US 40 and Salem Church Road/Porter Road was identified as a first priority intersection in the 2004 report. Since that time, additional studies have accentuated the need for safety improvements at this location. This intersection was also identified in the 2006 DeIDOT Highway Safety Improvement Program.

Final design for signal and pedestrian improvements is currently underway. Those improvements, expected to be implemented in 2007, include the revised northbound Porter Road left-turn phasing recommended in the safety report.

In an effort to address the crash frequency associated with access to commercial development near the intersection, DeIDOT has modified the configuration of the entrance to the proposed senior housing development along the west side of Salem Church Road, north of the intersection. DeIDOT is also negotiating with the owner of the Salem Center/Wawa development to address access concerns.

### Highway Safety Improvement Program Sites

The following sites within the corridor were part of DeIDOT's statewide 2005 and 2006 Highway Safety Improvement Program (HSIP). Crash rates were based on events that took place during the three preceding calendar years (e.g. 2003 – 2005 for the 2006 HSIP). The recommendations from the HSIP review team and status of implementation are summarized below:

- 2005 Site O – Old Baltimore Pike, west of Deerborne Trail to east of Ironside Road. The HSIP committee recommended the following improvements, which were implemented in 2006 to reduce crashes at the intersection of Old Baltimore Pike and Pleasant Valley Road/Otts Chapel Road.
  - Restripe the westbound shared through/right-turn lane as an exclusive right-turn lane.
  - Remove a portion of the concrete island to increase the length of the westbound Old Baltimore Pike left-turn bay.
- 2006 Site C – Smalleys Dam Road, SR 7 to Victoria Boulevard. The HSIP committee recommended the following improvements.
  - Remedial signing and striping improvements throughout the corridor.
  - Install a concrete channelizing island on the northeast corner of the Newtown Road at Smalleys Dam Road intersection for westbound right-turns.

These improvements will be implemented as part of the Bear Area Pedestrian Improvements project.

There are no listed 2007 HSIP sites in the US 40 study area.

## Transit Service

Statewide transit ridership increased by one and a half percent in 2006, with ridership in the US 40 corridor up approximately four percent. This growth is significantly less than in previous years.

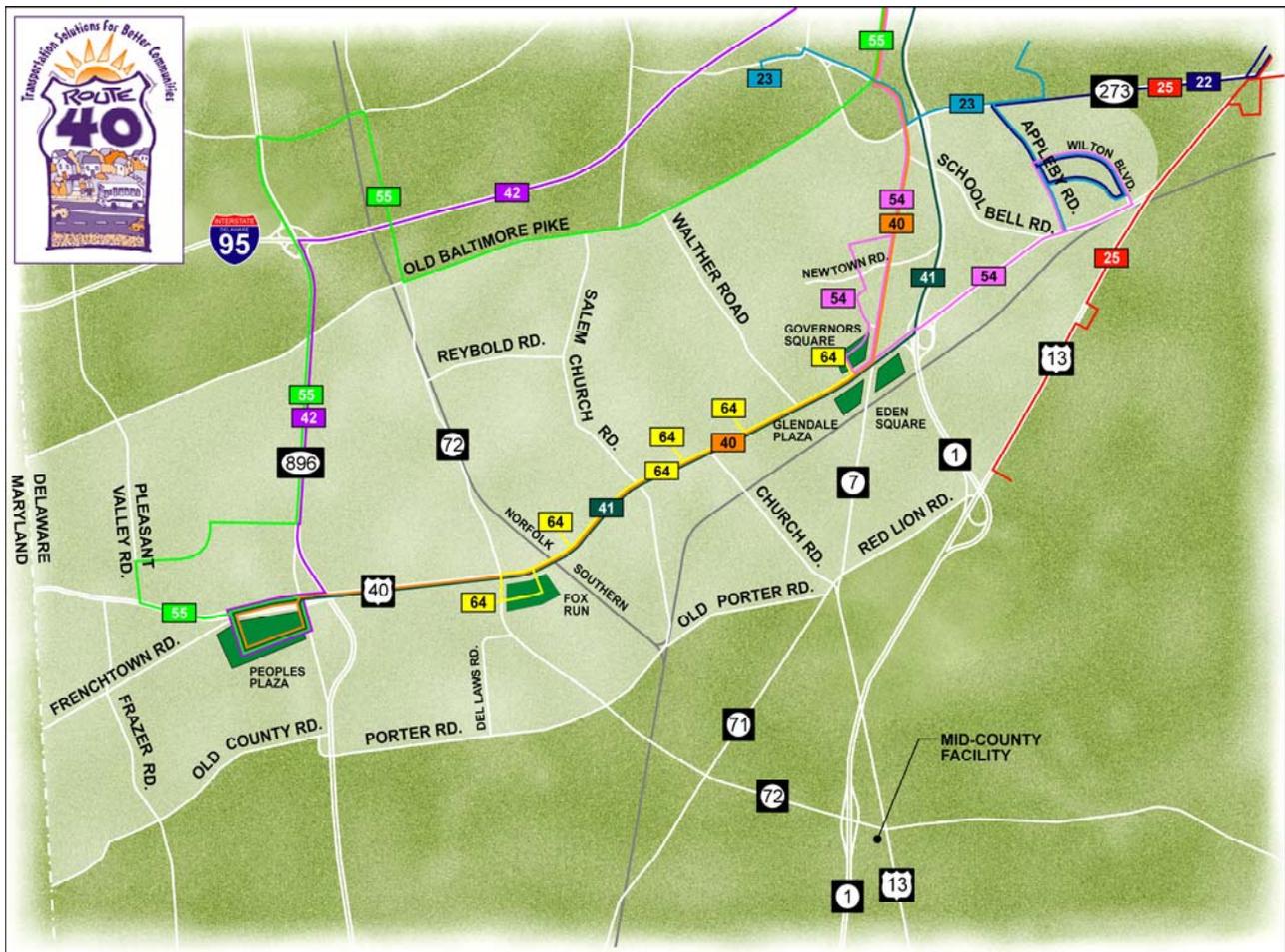
Since the inception of the Route 40 Plan in 2000, statewide ridership has increased by almost six percent. In the Route 40 Corridor, ridership has increased by over 20 percent.

DART First State routes 40, 41, and 42 continue to provide service between Peoples Plaza and

Wilmington, route 54 links the Taylortowne and Wilton areas with Christiana Mall, and route 55 connects Glasgow with Christiana Mall and downtown Wilmington via Old Baltimore Pike. Finally, route 64 provides local feeder service to neighborhoods along Route 40 between Governors Square and Fox Run. See Figure 5 for route locations.

There were no service changes in the corridor in 2006 and none are currently planned for the future.

Figure 5. Transit Route Map.



## Project Status

Progress continued on sixteen projects in the Route 40 corridor during 2006. Much of that progress relates to concept and final design for projects awaiting construction funding in the future. Figure 6 shows the status of projects in the corridor as of the

end of 2006. Detailed descriptions of projects are provided below.

### SR 7, US 40 to Newtown Road

This project, which involved widening SR 7 from two to four lanes, pedestrian and transit improvements, was completed in 2006.

### School Bell Road, SR 1 to US 40

Safety concerns and geometric deficiencies have been identified along School Bell Road between the SR 1 underpass and US 40. In response to public concerns, this project was accelerated from Phase II to Phase I of the Route 40 Plan. Final design is complete, utility relocations began in fall 2006 and construction is expected to start in spring 2007.

### Walther Road, North of US 40 to Old Baltimore Pike

Final design for sidewalks along Walther Road is complete. Sidewalk will be provided on both sides of the roadway from Old Baltimore Pike south to Glennwood Drive, where the proposed Newtown Trail (see below) will cross Walther Road. Sidewalk will then continue south along only the west side of the road as far as the Walther farm. Construction is scheduled to begin in spring 2007.

### Bear Area Pedestrian Improvements

This project was added to the Route 40 program at the request of the Corridor Monitoring Committee in 2003. The original project scope involved the construction of sidewalks along Rivers End Drive and possibly along Providence Drive and Taylor Drive. A public workshop was held on July 15, 2004 to present the original project scope. As a result of the feedback received from the public workshop and a petition against sidewalks along Providence Drive from residents in the vicinity, Providence Drive was removed from the project scope. Taylor Drive remained in the project scope, however residents and DeIDOT agreed that sidewalk on both sides was not necessary. Smalleys Dam Road was added to the project scope at the request of Representative Melanie George Marshall. This portion of the project will provide a connection among the Rivers End Drive and Taylor Drive sidewalks, recently-constructed sidewalks on Songsmith Drive, and the proposed Newtown Trail along Newtown Road. Final design for this project was completed in late 2006. Construction is expected to begin in summer 2007.

### Eden Square Connector

A connection will be provided from SR 7 opposite the Glendale Connector to the rear of the Eden Square Shopping Center. This project will allow elimination of the left turn from Eden Square onto US 40, which is expected to improve traffic operations in the area. The project will include slight widening of the Glendale Connector, installation of a

traffic signal at the SR 7 intersection, and reconfiguration of the access to the Eden Support Services Center (the former Leasure School). Final design is complete. A construction schedule has not been established for this project.

### US 40, Bear-Glasgow Bus Stop Improvements

Final design of about 60 improved bus stops throughout the Route 40 corridor is currently on hold. The project includes bus stop improvements and associated sidewalk segments, crosswalks, and pedestrian signals to improve access to transit. A construction schedule has not yet been established.

### SR 7, Newtown Road to SR 273

In 2004, final design began for the widening of SR 7 to four lanes between Newtown Road and SR 273. These improvements will extend the widening between US 40 and Newtown Road, which was completed in 2006. Final design continues and is expected to be completed in 2008. A construction schedule has not been established for this project.

### Newtown Trail

The Newtown Trail is a proposed bicycle and pedestrian path connecting Salem Church Road with SR 7. This trail provides a unique opportunity for bicycle and pedestrian transportation serving numerous residential communities, schools, parks, and employment centers between US 40 and Old Baltimore Pike. A public workshop was held on April 22, 2002 to introduce the project, and final design continues. Although a construction schedule has not been established for the majority of this project, the portion between Brookfield and SR 7 will be built as part of the Bear Area Pedestrian Improvements project.

### Projects In Concept Design

Concept design is underway for the following projects.

- **US 40/SR 72 intersection.** Widening of SR 72 at US 40 is needed to alleviate existing capacity and safety concerns. To provide appropriate capacity and traffic operations at the intersection, the SR 72 widening will extend from north of Mabel Lane to GBC Drive. Minor realignment of Del Laws Road is also proposed to match the proposed entrance to the Fox Run Business Center. A public workshop was held on July 19, 2005 to present four alternatives to the public. *A preferred alternative was selected and concept design will be complete in early 2007.*

- **Old Porter Road, Porter Road to SR 71.** Phase II of the Route 40 Corridor 20-Year Transportation Plan calls for bike lane improvements to the entire length of Old Porter Road. Realignment of the curve east of Lauren Farms is also anticipated and other minor roadway improvements associated with the development of Meridian Crossing II will be constructed by the developer. *Concept design was completed in early 2005; final design, right of way, and construction are not funded or scheduled.*
- **US 40/Pleasant Valley Road intersection.** Phase II of the Route 40 Corridor 20-Year Transportation Plan calls for turn lane improvements at the intersection of US 40 and Pleasant Valley Road. Specifically, a second left turn lane and second right turn lane are anticipated on the southbound Pleasant Valley Road approach and a second eastbound left-turn lane on US 40. *Concept design is underway; design, right of way, and construction are not funded or scheduled.*
- **Church Road, Wynnefield to SR 71.** Phase III of the Route 40 Corridor 20-Year Transportation Plan calls for bike lane improvements to Church Road from the south end of the current improvement project to SR 71. *Concept design is underway; design, right of way, and construction are not funded or scheduled.*
- **US 40 Sidepaths, Maryland State Line to SR 896.** Phase III of the Route 40 Corridor 20-Year transportation Plan calls for sidepaths along US 40 from the Maryland State Line to SR 896. *Concept design is underway; design, right of way, and construction are not funded or scheduled.*

#### Additional Planning Studies

- **McMullen Farm Park.** This project, which was previously planned under an agreement with JP Morgan Chase, included the purchase, at a discount rate, of 50 acres of the 153-acre JP Morgan Chase site as public parkland. In 2006, a portion of the development site was sold to a developer and now contains the proposed Lincoln Center development. DelDOT is currently negotiating with the developer to include the parkland as originally planned, providing a public amenity for the surrounding community.
- **Glasgow Avenue “Main Street” study.** As recommended by the Steering Committee, this study will address means to make old SR 896 in Glasgow less of a through roadway and more of a “main street,” balancing transportation and community needs. At the conclusion of the study, recommendations may be programmed for design,

right of way, and construction funding. Preliminary recommendations were developed in 2004 to coordinate with the development of Cann Village, which constitutes one of the last remaining undeveloped parcels in the area. As of the end of 2005, this study is on hold pending completion of other priorities in the Route 40 corridor. However, a developer has expressed interest in completing this study with private funds.

### Impact of Projects Completed in 2006

#### SR 7, US 40 to Newtown Road

This project was part of transportation improvements required as part of an agreement between DelDOT and JP Morgan Chase, which developed a core data center on the east side of SR 7 north of US 40. Construction was completed in summer 2006 and the resulting capacity improvements have changed the AM peak LOS from F to D and PM peak LOS from D to C at the intersection of US 40 and SR 7.

### Other Projects in the Region

As noted in previous Corridor Monitoring and Triggering Reports, two future regional projects may have an impact on the Route 40 corridor: widening of I-95 and the US 301 project. The status of these projects is summarized below.

- **Widening of I-95, SR 1 to I-295:** The planning and environmental documentation was completed in 2004 for widening I-95 from eight to ten lanes between SR 1 and SR 141. Construction of these improvements is planned to start in spring 2007.
- **Widening of I-95, Maryland line to SR 1:** This segment of I-95 is not projected to be widened from eight to ten lanes until the 2016-2025 time period, based on the Regional Transportation Program (RTP).
- **I-95/SR 1 interchange improvements:** Planning was completed in 2004 for major interchange improvements, including two-lane ramps connecting the north leg of I-95 with the south leg of SR 1. Construction funding for this project will be sought after construction is complete on the I-95 widening between SR 1 and I-295.
- **Widening of SR 1, US 13 to I-95:** This segment of SR 1 is not projected to be widened until the 2016-2025 time period, based on the RTP. The widening is projected to add one lane in each direction from US 13 to I-95. No planning or design is in progress. However, a short-term

pavement rehabilitation project was completed in summer 2006 along this entire segment of SR 1. The timing for complete rehabilitation of this section of SR 1 depends on the life of the short-term improvement and the availability of future funding.

- **US 301 Project:** The Major Investment Study (MIS) for this project was completed in January 2000; corridor planning activities continued in 2005. Four alternatives were retained for detailed study, and a preferred alternative was selected in fall 2006. Public hearings are scheduled for early 2007 and environmental documentation is scheduled for completion in 2007.

Figure 6. Project Status.



## TRIGGERING

### Assessment of Monitored Conditions

Generally, traffic congestion in the corridor did not increase substantially in 2006. Intersection levels of service, with the exception of the intersections of US 40 with SR 72, SR 896, US 13 and Salem Church Road/Porter Road, remained acceptable. Seven years of traffic data confirm the growth rates originally anticipated by the Plan.

During 2006, there were 28 new development plans submitted to New Castle County for review in the Route 40 corridor. This level of development activity was slightly less than last year; however, there was an increase in the number of new major development plans from two in 2005 to eight in 2006. A total of thirteen major development plans submitted prior to 2006 remained under review. For La Grange, Royal Farms, Meridian Crossing II, St. Andrews Addition, Calvarese Farms, Estates at Long Branch, YMCA, Cann Village, Becks Woods Medical Plaza, Dasher Farms, Lincoln Center, W.L. Gore and School Bell Crossing there are either current commitments for developer-funded roadway improvements or studies underway to determine which development commitments will be appropriate.

Safety trends were studied and priorities identified for the next year. There are no 2007 HSIP sites under study in the Route 40 Corridor.

There were no transit improvements completed in 2006 and none planned for 2007. Ridership increased both statewide and in the Route 40 Corridor, but less than previous years.

Most projects comprising Phase I of the Route 40 Plan are in some phase of concept design, final design, construction, or completion. During 2006, construction was completed for the SR 7 widening between US 40 and Newtown Road.

There are no regional highway or transit projects planned that would trigger the need for improvements in the corridor. However, impending improvements to I-95 will be monitored to determine their potential impacts to traffic along US 40, both during and after construction.

### Recommendations

#### *General*

- Continue to identify funding sources to implement as many of the recommendations below as possible and restore projects that have been placed on hold.

#### *Land development*

- Continue to monitor development activity to ensure compatibility with the Plan and maintain consistent developer contributions to transportation improvements.
- Monitor developer agreements for several major land developments to ensure the compatibility of developer-sponsored improvements with the Plan.
- Continue to develop a more comprehensive and consistent approach to recommend fair share contributions from developers towards transportation improvement projects.

#### *Traffic*

- Complete the traffic signal audit to determine appropriate improvements in signal operations to improve traffic flow and safety. Identify available funds, if any, and implement improvements.

#### *Corridor preservation*

- Continue pursuing corridor preservation opportunities through the site review team process.

#### *Highway safety*

- Conduct study at US 40 and Peoples Plaza to determine causes of recent crash trends.

#### *Transit*

- Continue to track ridership in the corridor and provide service enhancements where appropriate.
- Continue participation in the site review team to identify opportunities for developer-funded transit improvements.

#### *Planning, design, and construction*

- Begin construction of School Bell Road roadway Improvements, Walther Road sidewalks, and The Bear Area Pedestrian Improvements project.
- Continue final design for the following projects:
  - US 40, Bear-Glasgow bus stop improvements
  - SR 7 between Newtown Road and SR 273
- Complete concept design for the following projects:
  - US 40/SR 72 intersection
  - US 40/Pleasant Valley Road intersection
  - Church Road, Wynnefield to SR 71
  - US 40 sidepaths, Maryland State Line to SR 896
- Continue the US 40 environmental assessment between SR 896 and SR 1.

## PUBLIC INVOLVEMENT

### Activities During 2006

In an ongoing effort to keep the residents of the Route 40 corridor informed of the decisions and progress made by the project team, the following public involvement initiatives were undertaken during 2006.

**Public workshops**—Corridor residents were given the opportunity to receive information and express their opinions at one public workshop, held September 21, 2006 at the Bear Library to present results of the 2005 CMTR.

**Presentations to community groups**— On April 3, 2006 a presentation was given to members of the 7& 40 Alliance updating them on the status of projects in the corridor. Included in the presentation were discussions about construction progress on the intersection improvements at US 40 and SR 7 and the design for widening SR 7 from Newtown Road to SR 273.

**Public workshop mailings**—Throughout the year, notices of DeIDOT public workshops that were being held in the Route 40 corridor area were sent to the Route 40 mailing list. This provided interested stakeholders an additional opportunity to attend and provide feedback to DeIDOT about various projects.

**Web site, e-mail, project mailing address and telephone hotline**—The Route 40 corridor Web site (accessed from the DeIDOT Web site at <http://www.deldot.gov/static/projects/rt40/index.htm>) is updated to provide the latest information on implementation of the Plan. The Web site contains information from newsletters, updates on project planning, design, and construction, and a schedule of public meetings and workshops. During 2006, the Web site was redesigned to provide better access to project information.

**Local press exposure**—Articles were published in the *News Journal*, giving added exposure to the accomplishments of the CMC and project team.

### Activities Planned For 2007

To ensure the community is kept up to date and involved in the progress of transportation improvements in the Route 40 corridor, the project team has put in place the following communications initiatives for 2007:

**Web site**—The Route 40 Web site, which was improved in 2006, will continue to be maintained and updated on a regular basis.

**Public workshops**—The Corridor Monitoring Committee will keep residents informed of corridor improvement projects through a public workshop in the summer. Corridor residents will have the opportunity to view exhibits detailing the progress of projects, as well as ask questions of CMC and project team members. Additional workshops will be held throughout the corridor as individual projects from the Plan proceed through the design process.

**Stakeholder updates/public notice mailings**—Interested stakeholders (the CMC, former Route 40 Steering Committee members, elected officials, civic associations and residents on the mailing list) will receive periodic updates as projects from the Plan are implemented. In addition, notices for public workshops or hearings for projects in the Corridor will also be sent to these stakeholders.

**E-mail, project mailing address and telephone hotline**—Residents will still be able to communicate with the project team through various channels—e-mail, mailing address, or telephone.

**Table 4. Project Tracking Matrix.**  
Last updated February, 2007

KEY: < N/A > - Not Applicable  
TBD - To Be Determined

No.	Phase	Project	Status				Remarks
			Actual/ scheduled completion	Under study	Concept design complete	In final design	
1		SR 7/SR 273 intersection	2000				
2		US 40/Walther Road intersection (short term)	2002				
3		US 40/Governors Square/Glendale Connector intersection	TBD			X	Part of Eden Square Connector (#13)
4		US 40/SR 72 intersection	TBD	X			Concept design to be completed in 2007
5		SR 72/Del Laws Road intersection	TBD	X			Part of US 40 / SR 72 intersection improvements (#4)
6		US 40/Eden Square intersection	2000				
7		US 40/Buckley Boulevard intersection	2000				
8		SR 1/Newtown Road interchange	< N / A >				Project dropped from Plan
9		Church Road, US 40 to Wynnefield	2004				
10		SR 7, US 40 to Newtown Road	2006				
11		SR 7, Newtown Road to SR 273	2010			X	Construction expected to begin in 2009
12		Reybold Road, SR 72 to Salem Church Road	TBD		X		Project delayed to Phase II or Phase III
13		Eden Square Connector	TBD			X	Final design complete
14		Rue Madora	2002				
15		US 40 sidepaths, SR 72 to Scotland Drive	TBD	X			To be built with corresponding roadway segments
16		US 40 sidepaths, Scotland Drive to Salem Church Road	TBD	X			To be built with corresponding roadway segments
17		US 40 sidepaths, Salem Church Road to Church Road	TBD	X			To be built with corresponding roadway segments
18		US 40 sidepaths, Church Road to Walther Road	TBD	X			To be built with corresponding roadway segments
19		US 40 sidepaths, Walther Road to Governors Square	2005				Essentially complete - built by private developer
20		US 40 sidepaths, Governors Square to SR 1	TBD	X			To be built with corresponding roadway segments
21		Old Baltimore Pike sidepaths, SR 72 to SR 273	TBD	X			Subject to results of Old Baltimore Pike study (#39)
22		SR 72 sidepaths, US 40 to SR 71	TBD	X			Project delayed to Phase II or Phase III
23		Walther Road sidepaths, US 40 to Old Baltimore Pike	2007				Construction scheduled to begin in spring 2007
24		Porter Road bike lanes, SR 896 to US 40	2002				
25		Wilton Boulevard and Appleby Road sidepaths	2006				
26		Songsmith Drive sidepaths	2003				
27		Short-term improvements project	2000				
28		Enhancements to current transit service	2001				
29		Route deviation service along US 40	TBD				
30		Additional pedestrian connections to transit	TBD			X	Part of bus stop improvements project (#31)
31		Additional bus stop improvements	TBD			X	
32		Preservation and expansion of park and ride capacity	TBD				Project delayed to Phase II or Phase III
33		Waterford pedestrian access to US 40 bus stop	2003				
34		Access management on selected developed properties	< N / A >	X			Ongoing effort of site review team
35		Access management on properties as they are developed	< N / A >	X			Ongoing effort of site review team
36		Landscaping, streetscaping, and signing along US 40	TBD			X	Guide signs only - project delayed to Phase II or Phase III
37		Pleasant Valley Road/Frazier Road realignment study	2000				Realignment not recommended
38		Newtown Road transportation corridor	2003				Newtown Trail to be built (#81)
39		Old Baltimore Pike, SR 72 to SR 273	TBD				Project delayed to Phase II or Phase III
40		Glasgow Avenue "Main Street"	TBD				Project delayed to Phase II or Phase III
41		US 13 corridor study, SR 1 to Wilmington	TBD				Project delayed to Phase II or Phase III
42		SR 72 corridor study, US 40 to SR 1	2002				Implementation strategy not yet determined
43		SR 71 corridor study, SR 896 to US 13	TBD				Project delayed to Phase II or Phase III

No.	Phase	Project	Status					Remarks
			Actual/ scheduled completion	Under study	Concept design complete	In final design	Under construction	
44	PHASE I	US 40/Walther Road intersection (long term)	2005					Part of widening project (#45) - advanced from Phase II
45		US 40, Walther Road to Governors Square	2005					Built by private developer - advanced from Phase II
46		Scotland Drive extension to Porter Road	2004					Built by private developer - advanced from Phase III
47		Bear Area Pedestrian Improvements	2008					New project requested by Corridor Monitoring Committee
48		School Bell Road sidewalks/bike lanes	2008				X	Advanced from Phase II
49		US 40/Pleasant Valley Road intersection		X				
50		US 40/Salem Church Road/Porter Road intersection		X				Part of US 40 environmental assessment
51		US 40/SR 1 southbound ramp intersection		X				Part of US 40 environmental assessment
52		US 40, SR 72 to Scotland Drive		X				Part of US 40 environmental assessment
53		US 40, Church Road to Walther Road		X				Part of US 40 environmental assessment
54		US 40/SR 896 interchange		X				Part of US 40 environmental assessment
55		US 40/SR 7 interchange		X				Part of US 40 environmental assessment
56		Old Porter Road, Porter Road to SR 71			X			Curve realignment to be built by private developer
57		US 40 sidepaths, SR 896 to SR 72		X				To be built with corresponding roadway segments
58		US 13 sidepaths, US 40 to Tybouts Corner						
59		SR 896 sidepaths, Porter Road to Old Baltimore Pike						
60		Salem Church Road sidewalks/bike lanes, US 40 to I-95						
61		Del Laws Road sidewalks						
62		Old County Road sidewalks, Frazer Road to Glasgow Avenue		X				Corridor study completed in 2005
63		Preservation and expansion of park and ride capacity (continued)		X				
64		Access management on selected developed properties (continued)						
65		Closure of all median openings that are not or will not be signalized						Ongoing effort of site review team and safety committee
66		US 40/Scotland Drive intersection		X				Part of US 40 environmental assessment
67		US 40/SR 1 northbound ramp intersection		X				Part of US 40 environmental assessment
68		US 40/Glasgow Avenue intersection		X				Part of Glasgow Avenue study (#40)
69		US 40, Scotland Drive to Salem Church Road		X				Part of US 40 environmental assessment
70		US 40, Salem Church Road to Church Road		X				Part of US 40 environmental assessment
71		US 40, SR 896 to SR 72		X				Part of US 40 environmental assessment
72		US 40/US 13 interchange						
73		US 40 overpass at Norfolk Southern		X				Shellpot Bridge has reduced rail traffic at this location
74		SR 7, SR 71 to US 40						
75		SR 72, US 40 to Reybold Road						
76		Church Road, Wynnefield to SR 71		X				Concept design underway
77		Glasgow circulator roadways						
78		US 40 sidepaths, Maryland line to SR 896						Concept design underway
79		US 40 sidepaths, SR 1 to US 13		X				
80		Closure of all median openings that are not or will not be signalized (cont'd)						Ongoing effort of site review team and safety committee
81		Newtown Trail, Salem Church Road to SR 7					X	Result of Newtown Road corridor study (#38)

