

2007 CORRIDOR MONITORING AND TRIGGERING REPORT

May 2008



TABLE OF CONTENTS

INTRODUCTION	1
MONITORING	
Land development	2
Traffic.....	7
Corridor preservation	10
Highway safety.....	11
Transit service	13
Project status	14
Impact of projects completed in 2007	15
Other projects in the region	15
TRIGGERING	18
Assessment of monitored conditions	
Recommendations	
PUBLIC INVOLVEMENT	19
Activities during 2007	
Activities planned for 2008	
FIGURES	
Figure 1 – Major Development Location Map.....	5
Figure 2 – Developer Contributions	6
Figure 3 – Level of Service Comparison at Selected Intersections	9
Figure 4 – Traffic Growth Along US 40	10
Figure 5 – Transit Route Map	13
Figure 6 – Project Status	17
TABLES	
Table 1 – Major Plans Received and/or Reviewed During 2007	3
Table 2 – Average Daily Traffic	8
Table 3 – Signalized Intersection Level of Service Summary.....	8
Table 4 – Intersection Crash Data Summary.....	12
Table 5 – Project Tracking Matrix	inside back cover

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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 eighth year. With the beginning of Phase II, this eighth 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 DeIDOT, the New Castle County Department of Land Use, and the Delaware Transit Corporation. The site review team did not meet in 2007; 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 2007, there were 47 new development plans (10 major, 18 minor, and 19 resubdivision/other) submitted to New Castle County for review in the Route 40 corridor. This level of development activity is greater than last year. There was an increase in the number of each type of plan submitted, including that of major plans. 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 sixteen major developments proposed before 2007 continued this year. Among those plans, five (Steeple Glen, Bear-Glasgow Family YMCA, Estates at Long Branch/ Kang Farm, Royal Farms, and Dasher Farm) were recorded during 2007. Among the remaining eleven major development plans, five are in the record plan submittal stage, four are in the preliminary submittal plan review stage, and two are in the exploratory submittal plan review stage. 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. The plan also includes a park, early learning center, and Pencader community center. The historic house and cemetery on the site will be restored. The first phase will include the same amount of traffic proposed for the original First USA Bank proposal for the site. The developer will provide up to \$2.5 million for traffic mitigation both on- and off-site, along with monitoring to ensure the development meets its trip reduction goals. DeIDOT is still reviewing the potential phasing of the site as related to concurrency.
- The Whitewood Village subdivision is located on the 165-acre Sniadowski parcel on Reybold Road. A 209-lot age-restricted community is proposed on the portion of the property north of the road. DeIDOT is working with the developer to include offsite transportation improvements along Reybold Road, including widening and constructing a segment of a shared-use bicycle/pedestrian 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. DeIDOT 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.
- DeIDOT continues to work with the proposed Bear-Glasgow YMCA to complete construction of George Williams Way, a roadway segment providing a connection between LaGrange 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 almost complete and construction is expected to begin in 2008, pending right of way negotiations.
- Among many of the minor development plans new for 2007 and previously reviewed, DeIDOT and New Castle County continue to consolidate access and recommend cross access agreements where feasible.

Table 1. Major Plans Received and/or Reviewed During 2007.

Site	Description	Remarks	New plan in 2007?
Steeple Glen	110 mixed residential units	Recorded	No
Bear-Glasgow Family YMCA	90,000 square feet commercial	Recorded	No
Estates at Long Branch/Kang Farm	70 single-family houses	Recorded	No
Royal Farms	5,607 square feet commercial	Recorded	No
Dasher Farm	53 single family homes	Recorded	No
Porter Road Business Center Lot 3	2,800 square feet 2nd floor mezzanine	Recorded	Yes
Bible Fellowship Church of Newark	42,856 square feet church	Record Submittal	No
Old Baltimore Pike, L.L.C./Bradford Pond	32 lot age-restricted residential community	Record Submittal	No
Becks Woods Medical Plaza	67,500 square feet medical office	Record Submittal	No
Christiana Self Storage	83,876 square feet self storage facility & 1,000 square feet office	Record 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
Hershberger Property	84 apartments	Preliminary Submittal	No
Whitewood Village	209 lot age-restricted community	Preliminary Submittal	No
Dover Federal Credit Union	Bank	Preliminary Submittal	No
Whittington Woods	84 lot single family land development	Exploratory Submittal	No
Lincoln Center	Office, retail, and residential	Exploratory Submittal	No
Thirteen Stars	Subdivide two parcels in 14 lots	Exploratory Submittal	Yes
Dade Behring	150,000 square feet research & development building	Exploratory Submittal	Yes
Voice of Truth Church	Rezone from S to CR	Exploratory Submittal	Yes
Lighthouse Baptist Church	14,922 square feet church, 9,000 square feet multi-use building	Exploratory Submittal	Yes
School Bell Crossing Shopping Center	69,659 square feet supermarket, 2-story retail	Exploratory Submittal	Yes
Old State Road Self Storage	50,050 square feet self-storage, 600 square feet office, 5,000 square feet retail	Exploratory Submittal	Yes
Old State Road Hotel	Rezone from S to CR	Exploratory Submittal	Yes
Rockwood Parcel 1-B	60 apartments, 10,000 square feet daycare building, 21 storage units	Exploratory Submittal	Yes
Rockwood Parcel 1-C	90 apartment units, 5 storage buildings	Exploratory Submittal	Yes

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

In 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, Dover Federal Credit Union, Whitewood Village, Peoples Park Addition, W.L. Gore, and Lincoln Center. The application for St.

Andrews Addition was approved by DeIDOT and New Castle County.

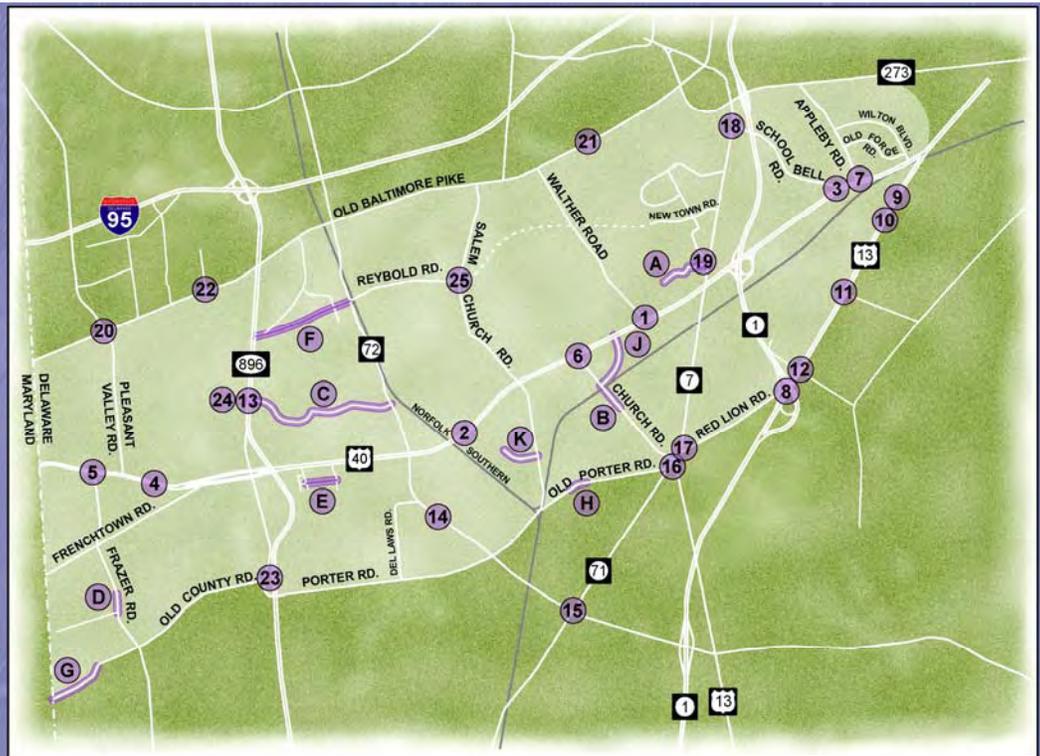
In 2006, due to the continuing increase in the number of applications for TIS waivers, DeIDOT began discussions on developing a standardized approach to addressing TIS waivers and a method to determine developers' fair share contributions. This has become a more prevalent issue because of the reduced 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 2008.

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 2006. 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 less than what was originally anticipated (See Figure 4). At the five locations summarized in Table 2, the decrease in volumes as compared to the 2007 projections range from about 2.5 percent to almost 15 percent. However, the general growth trend over time remains about 1.8 percent annually.

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 2007. 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 DeIDOT.

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 DeIDOT. The results of the level of service (LOS) analysis are summarized in Table 3. As indicated, four intersections had minor degradation in levels of service from 2006 and six had slight improvement.

- The intersection of US 40 with Glasgow Avenue (north) returned to LOS E in the PM peak after improving in 2006 but remained at LOS D in the AM.
- The intersection of US 40 and SR 896 continued to operate at LOS D in the AM peak and LOS E in the PM peak for the third consecutive year.
- The intersection of US 40 and SR 72 continued to operate at LOS E in both the AM and PM peak hours.
- The intersection of US 40 and Scotland Drive returned to LOS D in the PM peak after improving in 2005 and 2006. The intersection remained at LOS C in the AM peak.
- The intersection of US 40 and Salem Church Road / Porter Road improved to LOS E in the PM peak but remained at LOS D in the AM.
- The intersection at US 40 and SR 7 worsened to LOS D in the PM peak but improved to LOS C in the AM peak.
- The LOS at US 40 and US 13 improved to LOS C in the PM peak after two years of increasing congestion.
- All other signalized intersections on US 40 operated at acceptable levels of service (D or better) during both peak hours.

ROUTE 40 CORRIDOR IMPROVEMENTS

2007 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	2006 counts	Projected 2007 volumes	Actual 2007 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	39,600	39,727	38,778	-2.4%	48,000
West of SR 72	29,000	27,000	31,400	28,900	30,000	32,600	30,500	34,500	37,591	32,057	-14.7%	50,000
West of Salem Church Road	32,000	34,000	42,200	38,600	36,500	42,700	39,500	40,800	40,182	37,704	-6.2%	52,000
West of Walther Road	41,000	43,000	44,400	42,400	41,800	47,000	46,400	45,900	47,955	45,729	-4.6%	58,000
West of Wilton Boulevard	27,000	27,000	30,900	26,000	28,000	26,400	28,600	33,100	29,455	27,678	-6.0%	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		2007		2020 w/o the Plan	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Frazier Road	-	-	-	-	-	-	-	-	-	-	C	B	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	D	D	F	F
Perch Creek Drive	-	-	B	A	B	B	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	A	A	B	C
Peoples Plaza south	B	B	B	C	B	C	B	C	B	C	B	C	C	D	C	D	(B)	D	B	C
Glasgow Avenue north	C	C	C	C	C	C	C	C	D	C	C	C	C	E	D	D	D	(E)	C	F
Glasgow Avenue south	C	D	B	C	B	C	C	C	C	B	C	C	C	D	C	C	C	C	C	E
SR 896	D	D	D	E	D	D	D	D	D	D	E	D	D	E	D	E	D	E	F	F
LaGrange Avenue	-	-	-	-	-	-	-	-	-	-	-	-	A	A	A	B	A	B	-	-
SR 72	D	D	E	E	E	D	E	E	D	D	D	E	E	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	C	(D)	D	E
Salem Church/Porter Road	C	C	D	D	D	D	D	C	D	C	D	D	D	D	D	F	D	(E)	D	F
Brookmont Drive	B	B	B	B	B	B	A	B	A	B	B	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	(C)	C	E	F
Walther Road	C	D	D	D	D	D	D	D	D	D	C	C	C	C	C	D	C	(C)	F	F
Governors Square	B	C	C	C	C	C	C	C	C	D	D	C	C	D	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	(C)	(D)	F	F
SR 1 SB Ramps	A	A	A	A	B	B	B	B	B	B	B	B	A	A	A	A	A	(B)	A	B
SR 1 NB Ramps	B	B	B	A	C	B	B	B	C	B	C	B	B	A	A	A	A	A	B	E
Buckley Boulevard	-	-	B	B	B	B	B	B	B	B	B	B	B	C	B	C	B	C	-	-
School Bell Road	B	B	C	A	B	B	B	B	B	B	C	A	B	A	A	A	A	A	B	C
Wilton Boulevard	B	B	C	C	B	C	B	B	B	C	C	C	B	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	C	(C)	F	F

Note: Red denotes a worse level of service than 2006; green denotes improvement in level of service over 2006.

* - 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.

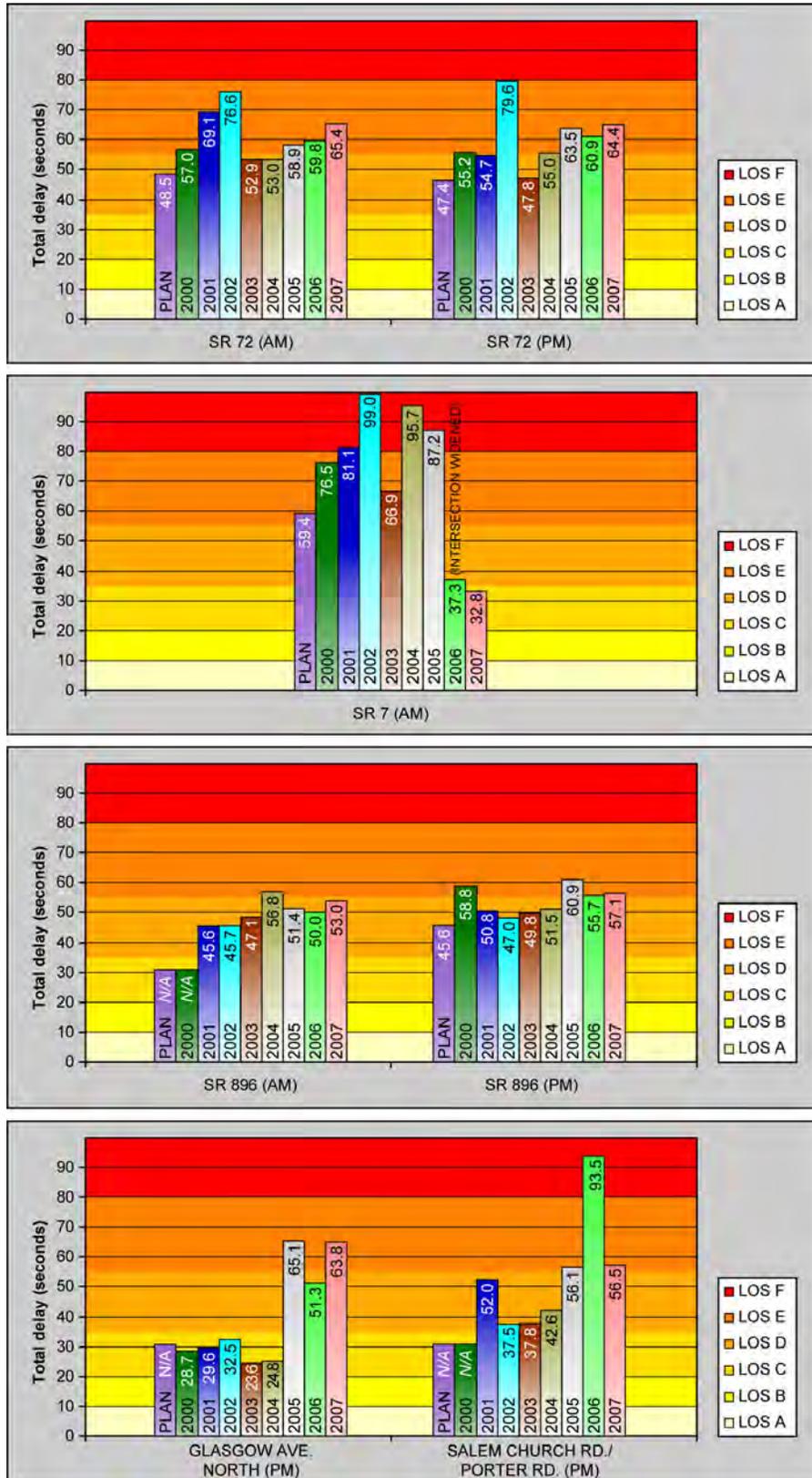
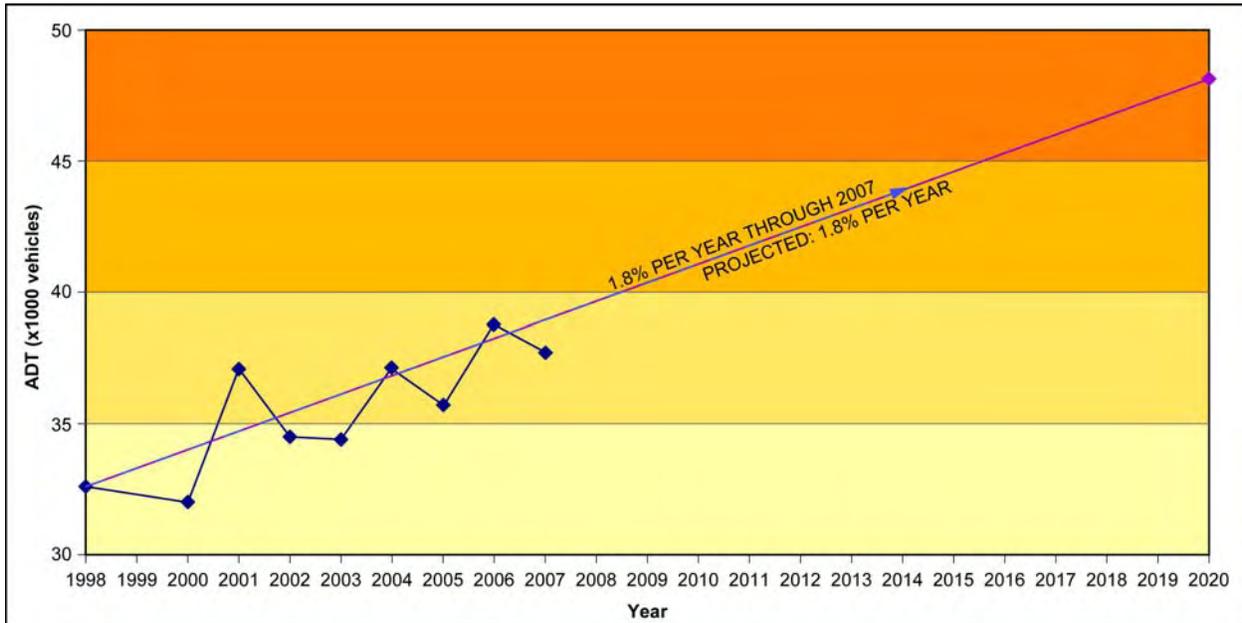


Figure 4. Traffic Growth Along US 40 (average of five count locations).



Corridor Preservation

As noted in the Land Development section, 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 and 2007 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 within the development.

Similar to School Bell Crossing, the St. Andrews development will include the construction of the fourth leg of the intersection at Route 40 and Becks Woods Drive along with a proposed traffic signal. The site review team is also working with a proposed gas station development at the southwest corner of US 40 and Glasgow Avenue to consolidate access and provide for striping improvements at the intersection.

Highway Safety

Review of Conditions in 2007

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, twelve 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 twelfth year of crash data studied in the corridor.

The results of the analysis indicate that there were three intersections in the corridor that are not currently under study or design and the most recent crash data was more than 50 percent higher than the previous eleven-year average.

- US 40 @ Frazer Road
- US 40 @ Scotland Drive
- US 40 @ Wilton Boulevard

The intersection of US 40 and Frazer Road experienced fewer crashes over the four year span from 2003 – 2006 compared to the eleven year average. In 2007, crash rates returned to the second highest in the twelve-year study. Crash trends will continue to be monitored and detailed crash reports will be reviewed in 2008.

The intersection of US 40 at Scotland Drive had an increase of 10 reported crashes and its highest total of the twelve-year study period. Detailed crash reports will be reviewed in 2008 to establish crash trends.

The intersection of US 40 at Wilton Boulevard had an increase of eight reported crashes and its second highest total during the twelve-year study period. Pedestrian safety at this location was studied in 2007; however, detailed crash reports will be reviewed in 2008 to establish any additional crash trends.

Results of Previous Studies

US 40 at Peoples Plaza

The 2006 Corridor Monitoring and Triggering Report identified the intersection at US 40 and Peoples Plaza Shopping Center with four consecutive years of increasing crash rates. As a result, a safety study was initiated.

Crash data was requested during a three-year period, between June 2004 and May 2007. During that time, a total of 25 crashes were reported, including 13 angle crashes, ten rear-end crashes and two sideswipe crashes. There were five reported injuries, all resulting from angle crashes. Among the 13 angle crashes, 10 included eastbound/southbound vehicles. Seven of those crashes involved vehicles disregarding the eastbound US 40 red phase.

Additional field observations are needed to complete the report and signal visibility issues are being considered. The results of the 2007 crash data indicate that the total number of reported crashes increased from 10 in 2006 to 12 in 2007.

Table 4 shows the number of reported crashes annually at select intersections beginning in 2000. Results for 2005 cannot be directly compared to other years because of report delays caused by a system reporting upgrade. Results for 2006 and 2007 include 12 months of data.

Highway Safety Improvement Program Sites

The following sites within the corridor were part of DelDOT'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. 2004 – 2006 for the 2007 HSIP). The recommendations from the HSIP review team and status of implementation are summarized below:

- 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 at Newtown Road and Smalleys Dam Road.

These improvements were implemented as part of the Bear Area Pedestrian Improvements project. There are no listed 2007 HSIP sites in the US 40 corridor.

Table 4. Intersection Crash Data Summary

INTERSECTION	NUMBER OF REPORTED CRASHES							
	2000	2001	2002	2003	2004	2005*	2006	2007
FRAZER ROAD	3	4	17	8	6	8	4	12
PLEASANT VALLEY ROAD	17	6	23	12	18	15	17	11
PERCH CREEK DRIVE	-	-	-	-	24	12	24	17
FRENCHTOWN ROAD	7	7	11	7	2	8	3	2
PEOPLES PLAZA	5	10	7	5	8	9	10	15
GLASGOW AVENUE	34	32	27	35	28	26	28	15
SR 896	26	27	38	40	48	36	31	35
LAGRANGE AVENUE	-	-	-	-	0	1	8	9
SR 72	29	15	37	36	27	28	38	44
SCOTLAND DRIVE	23	16	18	17	20	15	18	28
SALEM CHURCH ROAD	27	14	21	41	55	46	37	33
GLASGOW DRIVE	12	4	6	7	7	7	4	4
BROOKMONT DRIVE	21	21	27	11	10	19	10	11
CHURCH ROAD	28	11	14	21	34	17	18	15
WALTHER ROAD	31	12	14	20	25	28	16	10
SR 7	40	27	43	31	53	60	59	56
SR 1 SB	16	30	24	7	4	4	11	12
SR 1 NB	6	12	11	7	4	4	7	14
SCHOOL BELL ROAD	3	8	7	7	12	10	2	9
BUCKLEY BLVD.	-	-	-	-	3	16	13	13
WILTON BLVD.	10	7	4	14	17	26	12	20

*Note: 2005 was the first year of the new digital reporting format to the SDM (Safety Data Management) System - not all 2005 data was available at the time the report was published. Results for 2006 and 2007 included 12 full months of crash data.

Transit Service

Statewide transit ridership decreased by one tenth of a percent in 2007 with ridership in the US 40 corridor down approximately two and a half percent. In previous years, both experienced slight increases in ridership.

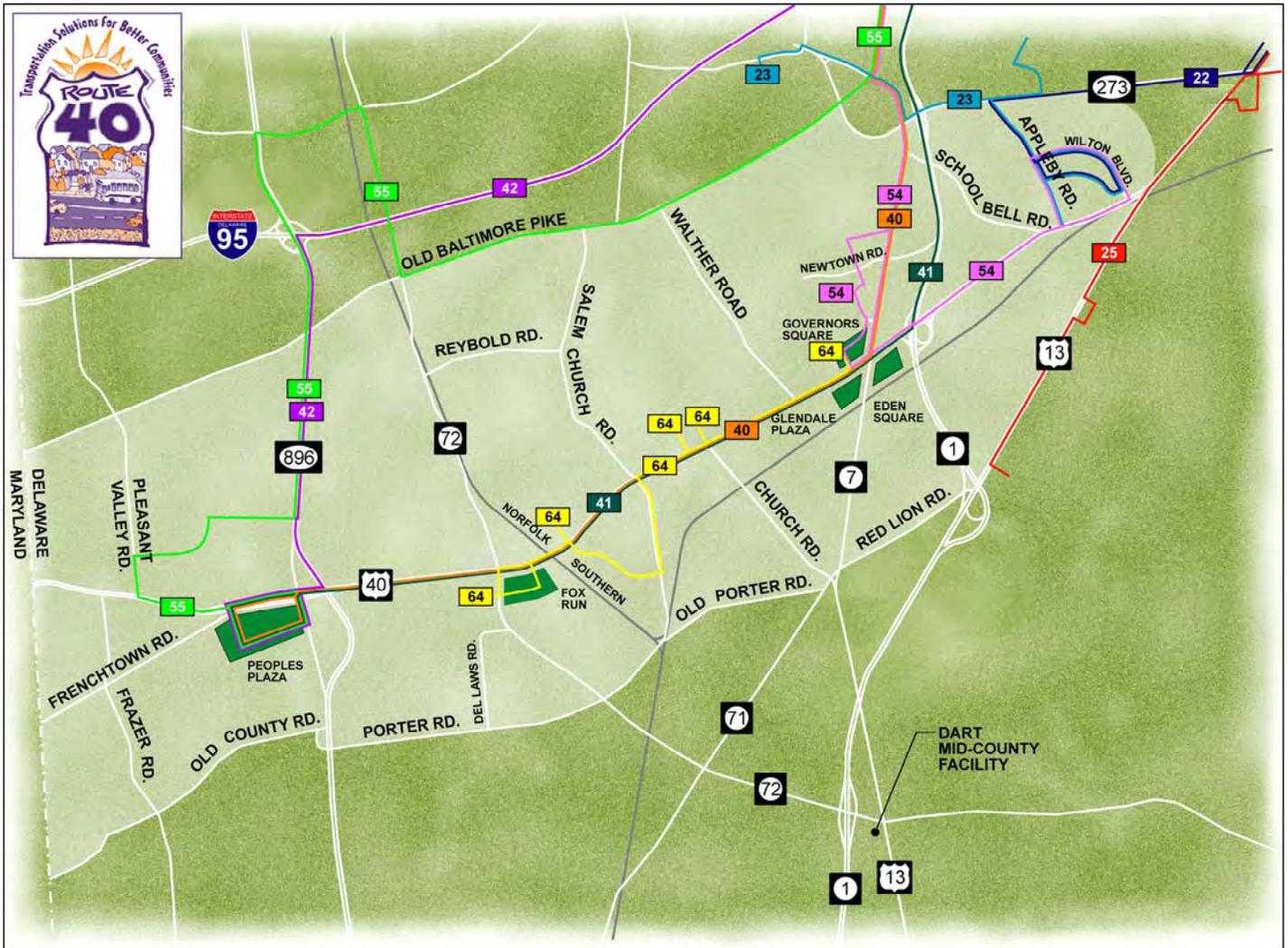
Since the inception of the Route 40 Plan in 2000, statewide ridership has increased nearly nine and a half percent. In the Route 40 Corridor, ridership has increased approximately 18 percent.

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. Ridership on route 41 increased nearly 20 percent, while the other routes saw decreases in ridership between two and eight percent. See Figure 5 for route locations.

In addition, there is a spring 2008 service change in the Route 40 corridor. It will extend route 55 non-peak trips from Glasgow to Newark as requested by Senator Amick, the Pencader Hundred Community and the University of Delaware.

Figure 5. Transit Route Map.



Project Status

Progress continued on sixteen projects in the Route 40 corridor during 2007. 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 2007. Detailed descriptions of projects are provided below.

School Bell Road, SR 1 to US 40

Safety concerns and geometric deficiencies were 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 began in June 2007. Construction is expected to be complete by the end of 2008.

Walther Road, North of US 40 to Old Baltimore Pike

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 began in April 2007 and is expected to be complete by the end of March 2008.

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 DelDOT 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.

Construction is expected to be complete in January 2008.

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 will be complete in fall 2008. 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 2009. 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 is under construction 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 final design will begin in early 2008.*
- **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 Village of Long Creek, 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 2007

No construction projects were completed in 2007.

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 expected to be complete by the end of 2008.
- **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.

- **US 301 Project:** The selected alternative for a new limited-access US 301 from the Maryland state line to the south end of the Roth Bridge was announced in May 2007. If financing issues are resolved, final design of the new highway could begin in 2008.

Figure 6. Project Status.



TRIGGERING

Assessment of Monitored Conditions

Generally, traffic congestion in the corridor did not increase substantially in 2007. Intersection levels of service, with the exception of the intersections of US 40 with SR 72, SR 896, Salem Church Road/Porter Road, and Glasgow Avenue, remained acceptable. Eight years of traffic data confirm the growth rates originally anticipated by the Plan.

During 2007, there were 47 new development plans submitted to New Castle County for review in the Route 40 corridor. This level of development activity is significantly higher than last year. A total of sixteen major development plans submitted prior to 2007 remained under review. For La Grange, Royal Farms, Meridian Crossing II, St. Andrews Addition, Calvarese Farms, Estates at Long Branch, YMCA, Village of Long Creek, 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, and 2008 sites have not yet been identified.

There were no transit improvements completed in 2007 and a modified route 55 is proposed for 2008. Ridership decreased 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.

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

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.

Corridor preservation

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

Highway safety

- Review crash data at the following intersections to determine if the recent increasing crash trend continues.
 - US 40 at Frazer Road
 - US 40 at Scotland Drive
 - US 40 at Wilton Boulevard

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

- Complete construction of the following projects:
 - School Bell Road between SR 1 and US 40
 - Walther Road sidewalks
 - Bear Area Pedestrian Improvements
- 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 improvements
 - 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 2007

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 2007.

Public workshops—Corridor residents were given the opportunity to receive information and express their opinions at two public workshops held August 20, 2007 at the Bear Library to present results of the 2006 CMTR.

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, can be accessed from the DeIDOT Web site at:

<http://www.deldot.gov/information/projects/rt40/index.htm>

The Web site is updated regularly 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.

Activities Planned For 2008

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 will continue the following communications initiatives for 2008:

Web site—The Route 40 Web site 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.



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