



STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
800 BAY ROAD
P.O. Box 778
DOVER, DELAWARE 19903

August 1, 2011

SHAILEN P. BHATT
SECRETARY

Mr. David Culver
General Manager
New Castle County Department of Land Use
87 Reads Way
New Castle, DE 19720

Dear Mr. Culver:

DeIDOT has completed its review of the traffic impact study (TIS) for the **Governor's Square Commercial Center** in New Castle County, prepared by LandmarkJCM (Landmark), dated June 3, 2011. Landmark prepared the report in a manner generally consistent with DeIDOT's Standards and Regulations for Subdivision Streets and State Highway Access.

The TIS evaluates the impact of the subject development, proposed to be located on a 31.94-acre parcel in New Castle County. The proposed land use consists of 277,995 square feet of commercial space. The development would be located on the east side of Delaware Route 7, between US Route 40 and Freedom Road. Two access points are proposed, with interconnection to the proposed Lincoln Center development, located to the north, also proposed. Construction is expected to be complete in 2013.

The land is currently zoned OR (Office Regional) in New Castle County, and the developer has proposed that the land be rezoned to CR (Commercial Regional).

DeIDOT currently has four relevant projects in the study area. The first is the widening of Delaware Route 7 from Newtown Road to Delaware Route 273. Development in the area will cause increased congestion along this corridor, resulting in the need to widen Delaware Route 7 from a single lane in each direction to two lanes in each direction. The project will improve pedestrian and bicycle facilities and will improve operational deficiencies at the multiple intersections along Delaware Route 7, including intersections at Rivers End Drive, School Bell Road and Delaware Route 273. The proposed improvements include widening Delaware Route 7 from two to four travel lanes, improving pedestrian, bicycle and transit facilities to address congestion and mobility, and milling and overlaying School Bell Road from Delaware Route 7 to the Delaware Route 1 overpass. Completion of this project is scheduled for late 2013 or early 2014.

The second is the US Route 40 - Eden Square Connector. The US Route 40 Corridor is expected to experience worsening congestion and safety problems because of planned growth. The Corridor also has minimal accommodations for pedestrians and bicyclists. This project is part of the US Route 40, Maryland State Line to US Route 13 Program. This project involves the construction of a road from Delaware Route 7, south of US Route 40, to the Eden Square Shopping Center to relieve congestion in the area of the US Route 40 / Delaware Route 7 intersection and improvements to the Glendale Connector. Completion of this project is scheduled for sometime in 2017.



The third is the Hazard Elimination Project (HEP) at the intersection of US Route 40 and Delaware Route 7. Between January 2006 and September 2010, a significant number of crashes were reported at the intersection. Thus, in order to make the intersection safer, several recommendations were identified in a 2010 HEP report on the intersection. Those recommendations were to reverse the signal phasing of the northbound and southbound Delaware Route 7 approaches, to move the stop lines for northbound and southbound Delaware Route 7 right turns and install painted channelizing islands and signing and striping for the auxiliary lanes along eastbound and westbound US 40 in compliance with Figure 3B-11 (Sheet 3 of 5) of the Delaware *Manual on Uniform Traffic Control Devices (MUTCD)*, to install a yield line for the northbound Delaware Route 7 right turn onto eastbound US Route 40, to upgrade the YIELD signs on all four approaches to the intersection to 48-inch YIELD signs, and to install backplates with the signal heads at the US Route 40 and Delaware Route 7 intersection and at the Eden Square Shopping Center entrance on US Route 40.

As part of the recommendations listed in the HEP project, a fourth project in the area, which focuses on pedestrian-oriented improvements to the intersection of US Route 40 and Delaware Route 7, has been initiated. Currently, no pedestrian accommodations are provided at the intersection and pedestrian crossings are prohibited via signing across the east and west legs of the intersection. However, land uses surrounding the US Route 40 at Delaware Route 7 intersection generate significant pedestrian activity. Sidewalk is provided on the southeast corner of the intersection, serving the Eden Square Shopping Center. The following improvements to improve pedestrian safety at the intersection are as follows: Install signalized pedestrian crossings across the north and south legs of the intersection, and construct sidewalk connections along both sides of Delaware Route 7 from US Route 40 to south of Songsmith Drive, along the south side of US Route 40 from Delaware Route 7 to west of the Wawa, and along the north side of US Route 40 from Delaware Route 7 to Governors Square Shopping Center. No completion date has been set for this project.

Based on our review, we have the following comments and recommendations:

All intersections included in the scope of this TIS meet the Level of Service (LOS) concurrency requirements as stated in Section 40.11.210 of the New Castle County Unified Development Code (UDC).

Stop-controlled minor street approaches at the following intersections will not meet DelDOT Level of Service criteria unless physical roadway and / or traffic control improvements are implemented:

<i>Intersection</i>	<i>Situations for which deficiencies occur</i>
US Route 40 / Quintilio Drive	2011 & 2013 PM and SAT with or without the proposed development
Delaware Route 7 / Wellspring Drive	2011 & 2013 PM and SAT with or without the proposed development
Delaware Route 7 / Glendale Connector	2011 & 2013 PM and SAT with or without the proposed development
Delaware Route 7 / Freedom Road	2013 PM with or without the proposed development, 2013 SAT with the proposed development

The intersections of US Route 40 / Quintilio Drive and Delaware Route 7 / Wellspring Drive exhibit LOS deficiencies in both 2011 and 2013. In each case, the minor side street has relatively light traffic volumes turning onto the major street during the peak hours. Due to heavy through volumes along the major street, vehicles will experience significant delay in turning from the minor street, thus resulting in poor LOS. However, the vehicles turning from the minor street will be distributed over the course of the peak hour, resulting in minimal traffic queues for these movements. Therefore, we do not recommend any improvements be made to these intersections.

Should the County choose to approve the proposed development, the following items should be incorporated into the site design and reflected on the record plan. All applicable agreements (i.e., letter agreements for off-site improvements and traffic signal agreements) should be executed prior to entrance plan approval for the proposed development.

1. The developer should improve the intersection of US Route 40 and Delaware Route 7. These improvements include extending the southbound dual left-turn lanes to 725 feet, excluding taper. This extension would require shifting the northbound through lanes of Delaware Route 7 to the east, both south and north of the southern Songsmith Drive intersection. The developer should coordinate with DeIDOT's Subdivision Section on the implementation of these improvements.
2. The developer should enter into an agreement with DeIDOT to fund an equitable portion of DeIDOT's HEP project at the intersection of US Route 40 and Delaware Route 7, including the planned pedestrian improvements. The developer should coordinate with DeIDOT on the implementation and equitable cost sharing of these improvements.
3. The developer should improve the southern intersection of Delaware Route 7 and Songsmith Drive. These improvements include modifying the eastbound and westbound approaches so that they include an exclusive left-turn lane, a shared left-turn / through lane, and an exclusive right-turn lane. Additionally, the southbound left-turn lane along Delaware Route 7 should be extended to 560 feet, excluding taper. The developer should coordinate with DeIDOT's Subdivision Section on the implementation of these improvements.
4. The developer should enter into a traffic signal agreement with DeIDOT for the southern intersection of Delaware Route 7 and Songsmith Drive. The agreement should cover the physical changes noted in Items 1 and 4. The developer should coordinate with DeIDOT on the implementation and equitable cost sharing of the traffic signal.
5. Prior to record plan approval, the developer should be required to complete a signal justification study for the intersection of Delaware Route 7 and Freedom Road, including a bandwidth analysis for Delaware Route 7 from US Route 40 to Rivers End Drive. Upon completion of that study, the developer should be required to enter into a traffic signal agreement with DeIDOT for the intersection that is deemed the best location for a new signal. The agreement should include pedestrian signals, crosswalks and interconnection at DeIDOT's discretion. The developer should coordinate with DeIDOT on the implementation and equitable cost sharing of the traffic signal.
6. The developer should enter into a traffic signal agreement with DeIDOT for the intersection of Delaware Route 7 and the Glendale Connector. The agreement should include pedestrian signals, crosswalks and interconnection at DeIDOT's discretion. The developer should coordinate with DeIDOT on the implementation and equitable cost sharing of the traffic signal.

7. Certificates of occupancy should be withheld until Delaware Route 7 has been widened to four lanes from Newtown Road to a point north of Rivers End Drive.

Further comments, relating to transit, bicycle and pedestrian improvements, will be made during DelDOT's site plan review process.

Please note that this review generally focuses on capacity and level of service issues; additional safety and operational issues will be further addressed through DelDOT's site plan review process.

Additional details on our review of the TIS are attached. Please contact Mr. Troy Brestel at (302) 760-2167 if you have any questions concerning this review.

Sincerely,



T. William Brockenbrough, Jr.
County Coordinator

TWB:tbm

Enclosures

cc with enclosures:

Mark Parker, Landmark Engineering / JCM Environmental
Tigist Zegeye, WILMAPCO
John Janowski, New Castle County Department of Land Use
Owen Robotino, New Castle County Department of Land Use
Cleon Cauley, Deputy Secretary
Frederick H. Schranck, Deputy Attorney General
Terry Gorlich, Legislative Liaison, Public Relations
Natalie Barnhart, Director, Transportation Solutions (DOTS)
Michael Strange, Acting Director, Division of Planning
Drew Boyce, Assistant Director, Project Development North, DOTS
Donald D. Weber, Chief Traffic Engineer, Traffic, DOTS
Theodore G. Bishop, Assistant Director, Development Coordination
Mark Luszcz, Assistant Chief Traffic Engineer, Traffic, DOTS
Thomas E. Meyer, Traffic Studies Manager, Traffic, DOTS
J. Marc Coté, Subdivision Engineer, Development Coordination
Jennifer Pinkerton, Chief Materials and Research Engineer, M&O
Mark Alexander, Canal District Engineer, Canal District
Kevin Canning, Public Works Engineer, Canal District
Mark C. Tudor, Project Manager, Project Development North, DOTS
Wayne Henderson, Service Development Planner, Delaware Transit Corporation
Ivan Mitchell, Service Development Planner, Delaware Transit Corporation
Marco Boyce, Statewide & Regional Planning
Peter Haag, Traffic Engineer, Traffic, DOTS
Joshua Schwartz, Subdivision Manager, Development Coordination
Troy Brestel, Project Engineer, Development Coordination
Sean McEvelly, Johnson, Mirmiran & Thompson, Inc.
Andrew J. Parker, McCormick Taylor, Inc.

General Information

Report date: June 2011

Prepared by: LandmarkJCM

Prepared for: Delle Donne & Associates

Tax Parcels: 10-039.00-002, 10-039.00-050

Generally consistent with DelDOT's *Standards and Regulations for Subdivision Streets and State Highway Access*: Yes

Project Description and Background

Description: 227,995 square foot shopping center

Location: East side of Delaware Route 7, just north of US Route 40

Amount of land to be developed: approximately 31.94 acres

Current zoning: OR (Office Regional)

Proposed zoning: CR (Commercial Regional)

Land use approval(s) needed: Subdivision approval, New Castle County Land Use approval

Proposed completion date: 2013

Proposed access locations: Intersections of Southern Songsmith Drive with Delaware Route 7 and Northern Songsmith Drive with Delaware Route 7

Livable Delaware

(Source: Delaware Strategies for State Policies and Spending, July 2010)

Location with respect to the Strategies for State Policies and Spending Map of Delaware: The proposed location of the Governor's Square Commercial Center located within Investment Level 1.

Description of Investment Level:

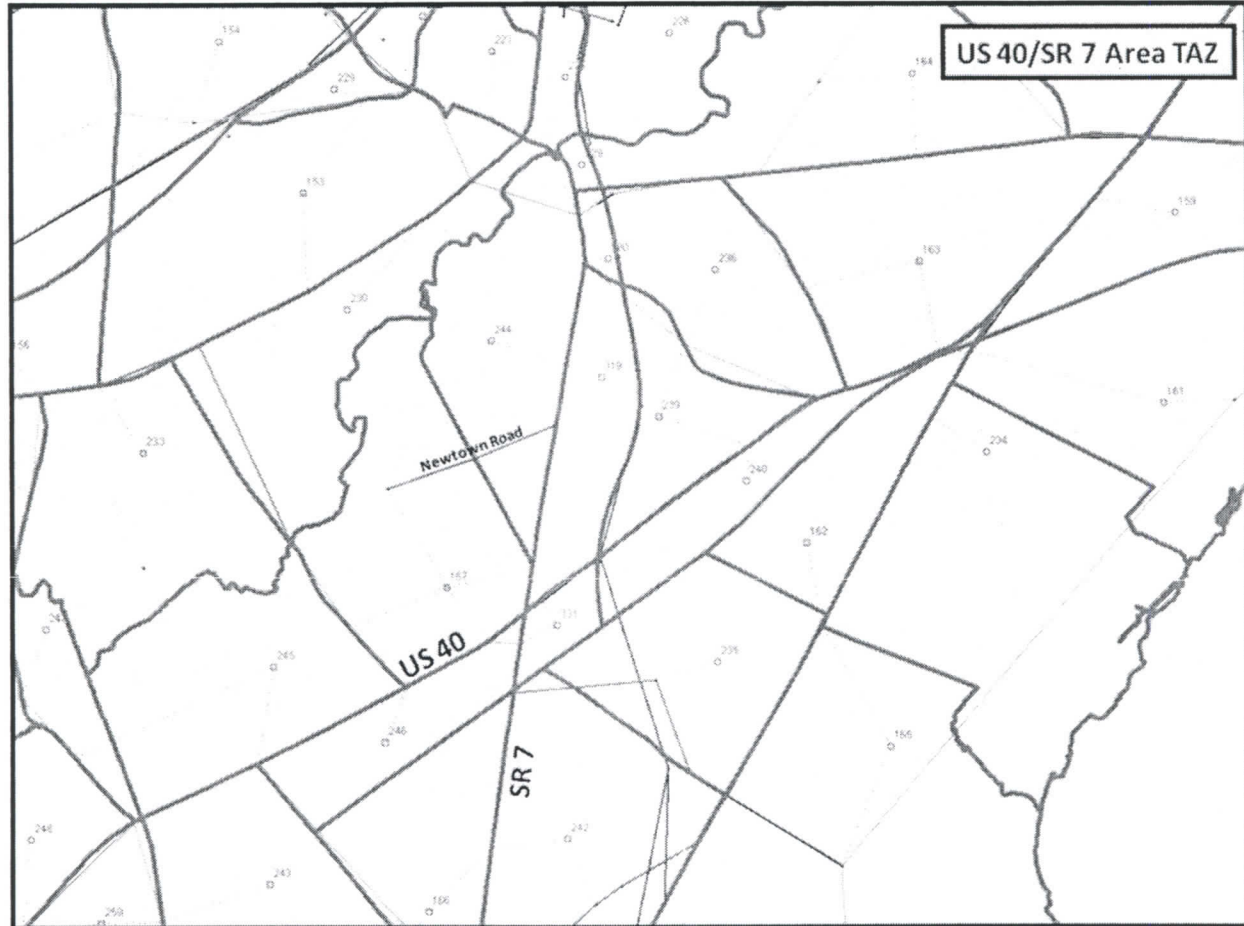
Investment Level 1

In Investment Level 1 Areas, state investments and policies should support and encourage a wide range of uses and densities, promote other transportation options, foster efficient use of existing public and private investments, and enhance community identity and integrity. Overall, it is the state's intent to use its spending and management tools to maintain and enhance community character, to promote well-designed and efficient new growth, and to facilitate redevelopment in Investment Level 1 Areas. These areas would be a prime location for designating "pre-permitted areas" to help steer development where the citizens are most prepared to accept it.

Proposed Development's Compatibility with Livable Delaware: The Governor's Square Commercial Center falls within Investment Level 1. When comparing the proposed land use to the description provided above, it appears that this development proposal is generally consistent with the policies in the 2010 update of the Livable Delaware "Strategies for State Policies and Spending."

Regional Transportation Plan

Transportation Analysis Zones (TAZ) where development would be located: 319



Current employment estimate for TAZ: 756

Future employment estimate for TAZ: 979

Current population estimate for TAZ: 1610

Future population estimate for TAZ: 1511

Current household estimate for TAZ: 595

Future household estimate for TAZ: 595

Relevant committed developments in the TAZ: Lincoln Center, St. Elizabeth Ann Seton Church

Would the addition of committed developments to current estimates exceed future projections: Yes

Would the addition of committed developments and the proposed development to current estimates exceed future projections: Yes

Relevant DelDOT Projects within the study area

DelDOT currently has four relevant projects in the study area. The first is the widening of Delaware Route 7 from Newtown Road to Delaware Route 273. Development in the area will cause increased congestion along this corridor, resulting in the need to widen Delaware Route 7 from a single lane in each direction to two lanes in each direction. The project will improve pedestrian and bicycle facilities and will improve operational deficiencies at the multiple intersections along Delaware Route 7, including intersections at Rivers End Drive, School Bell Road and Delaware Route 273. The proposed improvements include widening Delaware Route 7 from two to four travel lanes, improving pedestrian, bicycle and transit facilities to address congestion and mobility, and milling and overlaying School Bell Road from Delaware Route 7 to the Delaware Route 1 overpass. Completion of this project is scheduled for late 2013 or early 2014.

The second is the US Route 40 - Eden Square Connector. The US Route 40 Corridor is expected to experience worsening congestion and safety problems because of planned growth. The Corridor also has minimal accommodations for pedestrians and bicyclists. This project is part of the US Route 40, Maryland State Line to US Route 13 Program. This project involves the construction of a road from Delaware Route 7, south of US Route 40, to the Eden Square Shopping Center to relieve congestion in the area of the US Route 40 / Delaware Route 7 intersection and improvements to the Glendale Connector. Completion of this project is scheduled for sometime in 2017.

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Trip Generation

Trip generation for the proposed development was computed based on rates developed from traffic counts that were conducted between March 4, 2009 and March 11, 2009 at a similar hospice facility located in Milford, Delaware. DelDOT reviewed those traffic counts and determined that the rates to be used for this study were acceptable.

Delaware Hospice Trip Generation

Land Use	Evening Peak Hour			Saturday Mid-day Peak Hour		
	In	Out	Total	In	Out	Total
<i>227,995 square foot commercial center</i>	542	564	1106	762	703	1465
<i>Pass-By Trips</i>	168	175	343	251	232	483
<i>Primary Trips</i>	374	389	763	511	471	982

Overview of TIS

Intersections examined:

- 1) Delaware Route 7 / Songsmith Drive (signalized)
- 2) Delaware Route 7 / Songsmith Drive (unsignalized)
- 3) US Route 40 / Delaware Route 7
- 4) US Route 40 / Glendale Connector / Entrance to Governor's Square I
- 5) US Route 40 / Quintilio Drive
- 6) US Route 40 / Entrance to Eden Square Shopping Center
- 7) US Route 40 / Delaware Route 1 North Ramp
- 8) US Route 40 / Delaware Route 1 South Ramp
- 9) Delaware Route 7 / Glendale Connector
- 10) Delaware Route 7 / Wellspring Drive
- 11) Delaware Route 7 / Freedom Road
- 12) Delaware Route 7 / Newtown Road
- 13) Delaware Route 7 / Rivers End Drive
- 14) Smalley's Dam Road / Newtown Road

Conditions examined:

- 1) Existing (2011);
- 2) 2013 without development;
- 3) 2013 with full development of the site and without Lincoln Center; and
- 4) 2013 with full development of the site and with Lincoln Center.

Peak hours evaluated: All intersections were examined during the weekday evening and Saturday mid-day peak hours.

Committed developments considered:

- 1) Lincoln Center (197,212 square feet of retail space, 28,280 square feet of specialty retail / restaurant space (via pad sites), 446,000 square feet of office space, an 80,000 square foot hotel, a 10,000 square foot daycare, 182 townhouses, 326 apartments) (*NOTE: This development will only need to be considered in Case 4 listed above*)
- 2) Christiana Self Storage (83,376 square feet of mini-storage space, 1,000 square feet of office space)
- 3) Whittington Woods (82 single-family detached houses)
- 4) St. Elizabeth Ann Seton Church (a 22,477 square foot addition to the existing church)

Intersection Descriptions

1) Delaware Route 7 / Songsmith Drive (signalized):

Type of Control: Signalized intersection

Northbound approach: (Delaware Route 7) one left-turn lane, two through lanes, one right-turn lane

Southbound approach: (Delaware Route 7) one left-turn lane, two through lanes, one right-turn lane

Eastbound approach: (Songsmith Drive) one shared left-turn / through lane, one right-turn lane

Westbound approach: (Songsmith Drive) one shared left-turn / through lane, one right-turn lane

2) Delaware Route 7 / Songsmith Drive (unsignalized):

Type of Control: Unsignalized intersection

Northbound approach: (Delaware Route 7) two through lanes, one right-turn lane

Southbound approach: (Delaware Route 7) one left-turn lane, two through lanes

Westbound approach: (Songsmith Drive) one left-turn lane, one right-turn lane, stop-controlled

3) US Route 40 / Delaware Route 7:

Type of Control: Signalized intersection

Northbound approach: (Delaware Route 7) one left-turn lane, two through lanes, one right-turn lane

Southbound approach: (Delaware Route 7) two left-turn lanes, two through lanes, one right-turn lane

Eastbound approach: (US Route 40) two left-turn lanes, three through lanes, one right-turn lane

Westbound approach: (US Route 40) two left-turn lanes, three through lanes, one right-turn lane

4) US Route 40 / Glendale Connector / Entrance to Governor's Square I:

Type of Control: Signalized intersection

Northbound approach: (Glendale Connector) one left-turn lane, one shared left-turn / through lane, one right-turn lane

Southbound approach: (Governor's Square I) one left-turn lane, one shared left-turn / through lane, one right-turn lane

Eastbound approach: (US Route 40) two left-turn lanes, three through lanes, one right-turn lane

Westbound approach: (US Route 40) two left-turn lanes, three through lanes, one right-turn lane

5) US Route 40 / Quintilio Drive:

Type of Control: Unsignalized intersection

Southbound approach: (Quintilio Drive) one right-turn lane, stop-controlled

Westbound approach: (Songsmith Drive) one right-turn lane, three through lanes

6) US Route 40 / Entrance to Eden Square Shopping Center:

Type of Control: Signalized intersection (English T)

Northbound approach: (Eden Square Shopping Center) two left-turn lanes

Eastbound approach: (US Route 40) three through lanes, one right-turn lane

Westbound approach: (US Route 40) two left-turn lanes, three through lanes

7) US Route 40 / Delaware Route 1 North Ramp:

Type of Control: Signalized intersection

Southbound approach: (Delaware Route 1 Ramp) two left-turn lanes, one right-turn lane

Eastbound approach: (US Route 40) three through lanes, one right-turn lane

Westbound approach: (US Route 40) one left-turn lane, two through lanes

8) US Route 40 / Delaware Route 1 South Ramp:

Type of Control: Signalized intersection

Northbound approach: (Delaware Route 1 Ramp) one left-turn lane, one right-turn lane

Eastbound approach: (US Route 40) one left-turn lane, two through lanes, one right-turn lane

Westbound approach: (US Route 40) one left-turn lane, two through lanes

9) Delaware Route 7 / Glendale Connector:

Type of Control: Unsignalized intersection

Northbound approach: (Delaware Route 7) one left-turn lane, one shared through / right-turn lane

Southbound approach: (Delaware Route 7) one left-turn lane, one through lane, one right-turn lane

Eastbound approach: (Glendale Connector) one left-turn lane, one through lane, one right-turn lane, stop-controlled

Westbound approach: (Old Hamburg Road) one shared left-turn / through / right-turn lane, stop-controlled

10) Delaware Route 7 / Wellspring Drive:

Type of Control: Unsignalized intersection

Northbound approach: (Delaware Route 7) one left-turn lane, one through lane

Southbound approach: (Delaware Route 7) one through lane, one right-turn lane

Eastbound approach: (Glendale Connector) one shared left-turn / right-turn lane, stop-controlled

11) Delaware Route 7 / Freedom Road:

Type of Control: Unsignalized intersection

Northbound approach: (Delaware Route 7) one left-turn lane, two through lanes

Southbound approach: (Delaware Route 7) one left-turn lane, two through lanes, one right-turn lane

Eastbound approach: (Freedom Road) one left-turn lane, one right-turn lane, stop-controlled

12) Delaware Route 7 / Newtown Road

Type of Control: Signalized intersection

Northbound approach: (Delaware Route 7) one left-turn lane, two through lanes, one right-turn lane

Southbound approach: (Delaware Route 7) one left-turn lane, two through lanes, one right-turn lane

Eastbound approach: (Newtown Road) one shared left-turn / through lane, one right-turn lane

Westbound approach: (Data Center Entrance) one shared left-turn / through lane, one right-turn lane

13) Delaware Route 7 / Rivers End Drive

Type of Control: Signalized intersection

Northbound approach: (Delaware Route 7) one left-turn lane, one through lane

Southbound approach: (Delaware Route 7) one through lane, one right-turn lane

Eastbound approach: (Rivers End Drive) one left-turn lane, one right-turn lane

14) Smalley's Dam Road / Newtown Road

Type of Control: Unsignalized intersection, all-way stop-controlled

Northbound approach: (Smalley's Dam Road) one left-turn lane, one through lane, one right-turn lane

Southbound approach: (Smalley's Dam Road) one left-turn lane, one shared through / right-turn lane

Eastbound approach: (Newtown Road) one shared left-turn / through / right-turn lane

Westbound approach: (Newtown Road) one shared left-turn / through lane, one right-turn lane

Transit, Pedestrian, and Bicycle Facilities

Further comments, relating to transit, bicycle and pedestrian improvements, will be made during DelDOT's site plan review process.

General HCS Analysis Comments

(see table footnotes on the following page for specific comments)

There were no general differences between the TIS and DelDOT's review of it.

Table 1
 PEAK HOUR LEVELS OF SERVICE (LOS)
 Governor's Square TIS Review
 Prepared by DelDOT

Signalized Intersection ¹	LOS per Landmark / JCM		LOS per DelDOT	
	Weekday PM	Saturday Mid-day	Weekday PM	Saturday Mid-day
Songsmith Drive (Bank Access) / Delaware Route 7				
2011 Existing	C (34.6)	D (36.4)	C (35.0)	D (36.4)
2013 without development	C (33.5)	D (34.9)	C (33.7)	D (35.5)
2013 with development, without Lincoln Center	D (45.2)	D (51.9)	D (48.1)	D (53.1)
2013 with development, with Lincoln Center	D (45.3)	D (52.3)	D (45.8)	D (51.7)

¹ The numbers in parentheses following levels of service are average delay per vehicle, measured in seconds.

Table 2
 PEAK HOUR LEVELS OF SERVICE (LOS)
 Governor's Square TIS Review
 Prepared by DelDOT

Unsignalized Intersection ¹	LOS per Landmark / JCM		LOS per DelDOT	
	Weekday PM	Saturday Mid-day	Weekday PM	Saturday Mid-day
Songsmith Drive (North Access) / Delaware Route 7				
2011 Existing				
Westbound Songsmith Drive	C	C	C (15.9)	C (15.5)
Southbound Delaware Route 7 Left-Turn	A	A	A (9.0)	A (9.1)
2013 without development				
Westbound Songsmith Drive	B	B	B (12.0)	B (12.4)
Southbound Delaware Route 7 Left-Turn	A	B	A (9.8)	B (10.2)
2013 with development, without Lincoln Center				
Westbound Songsmith Drive	B	B	B (13.1)	B (14.6)
Southbound Delaware Route 7 Left-Turn	A	A	A (8.9)	A (9.0)
2013 with development, with Lincoln Center				
Westbound Songsmith Drive	C	C	C (15.2)	C (16.4)
Southbound Delaware Route 7 Left-Turn	A	A	A (9.5)	A (9.8)

¹ The numbers in parentheses following levels of service are average delay per vehicle, measured in seconds.

Table 3
 PEAK HOUR LEVELS OF SERVICE (LOS)
 Governor's Square TIS Review
 Prepared by DelDOT

Signalized Intersection ¹	LOS per Landmark / JCM		LOS per DelDOT	
	Weekday PM	Saturday Mid-day	Weekday PM	Saturday Mid-day
US Route 40 / Delaware Route 7				
2011 Existing	C (34.4)	C (32.3)	C (33.9)	C (30.2)
2013 without development	D (41.1)	C (37.1)	D (43.5)	D (38.2)
2013 with development, without Lincoln Center	D (44.7)	D (42.4)	D (44.9)	D (43.3)
2013 with development, with Lincoln Center	D (53.3)	D (48.2)	D (53.6)	D (48.9)

¹ The numbers in parentheses following levels of service are average delay per vehicle, measured in seconds.

Table 4
 PEAK HOUR LEVELS OF SERVICE (LOS)
 Governor's Square TIS Review
 Prepared by DelDOT

Signalized Intersection ¹	LOS per Landmark / JCM		LOS per DelDOT	
	Weekday PM	Saturday Mid-day	Weekday PM	Saturday Mid-day
US Route 40 / Glendale Connector / Entrance to Governor's Square I				
2011 Existing	D (37.3)	D (38.0)	D (37.3)	D (38.0)
2013 without development	D (40.0)	D (38.7)	D (40.0)	D (38.7)
2013 with development, without Lincoln Center	D (39.3)	D (37.6)	D (39.3)	D (37.6)
2013 with development, with Lincoln Center	D (44.9)	D (42.7)	D (44.9)	D (42.1)

¹ The numbers in parentheses following levels of service are average delay per vehicle, measured in seconds.

Table 5
 PEAK HOUR LEVELS OF SERVICE (LOS)
 Governor's Square TIS Review
 Prepared by DelDOT

Unsignalized Intersection ¹	LOS per Landmark / JCM		LOS per DelDOT	
	Weekday PM	Saturday Mid-day	Weekday PM	Saturday Mid-day
US Route 40 / Quintilio Drive				
2011 Existing				
Southbound Quintilio Drive	F	C	F (56.0)	C (20.0)
2013 without development				
Southbound Quintilio Drive	F	C	F (106.8)	C (23.8)
2013 with development, without Lincoln Center				
Southbound Quintilio Drive	F	D	F (100.5)	D (25.2)
2013 with development, with Lincoln Center				
Southbound Quintilio Drive	F	D	F (131.1)	D (26.5)

¹ The numbers in parentheses following levels of service are average delay per vehicle, measured in seconds.

Table 6
 PEAK HOUR LEVELS OF SERVICE (LOS)
 Governor's Square TIS Review
 Prepared by DelDOT

Signalized Intersection ¹	LOS per Landmark / JCM		LOS per DelDOT	
	Weekday PM	Saturday Mid-day	Weekday PM	Saturday Mid-day
US Route 40 / Eden Square Entrance				
2011 Existing	B (12.7)	B (12.6)	B (13.9)	B (14.8)
2013 without development	B (12.9)	B (12.5)	B (14.0)	B (14.3)
2013 with development, without Lincoln Center	B (13.0)	B (12.4)	B (14.1)	B (14.2)
2013 with development, with Lincoln Center	A (7.3)	A (6.6)	A (8.5)	A (8.6)

¹ The numbers in parentheses following levels of service are average delay per vehicle, measured in seconds.

Table 7
 PEAK HOUR LEVELS OF SERVICE (LOS)
 Governor's Square TIS Review
 Prepared by DelDOT

Signalized Intersection ¹	LOS per Landmark / JCM		LOS per DelDOT	
	Weekday PM	Saturday Mid-day	Weekday PM	Saturday Mid-day
US Route 40 / Delaware Route 1 North Ramp				
2011 Existing	A (7.2)	A (6.7)	A (7.2)	A (6.3)
2013 without development	A (7.2)	A (6.6)	A (7.2)	A (6.2)
2013 with development, without Lincoln Center	A (7.2)	A (6.5)	A (7.2)	A (6.2)
2013 with development, with Lincoln Center	A (8.0)	A (6.5)	A (8.0)	A (6.1)

¹ The numbers in parentheses following levels of service are average delay per vehicle, measured in seconds.

Table 8
 PEAK HOUR LEVELS OF SERVICE (LOS)
 Governor's Square TIS Review
 Prepared by DelDOT

Signalized Intersection ¹	LOS per Landmark / JCM		LOS per DelDOT	
	Weekday PM	Saturday Mid-day	Weekday PM	Saturday Mid-day
US Route 40 / Delaware Route 1 South Ramp				
2011 Existing	B (10.4)	A (7.2)	B (11.4)	A (6.4)
2013 without development	B (11.0)	A (7.0)	B (11.9)	A (6.3)
2013 with development, without Lincoln Center	B (11.3)	A (6.9)	B (12.2)	A (6.3)
2013 with development, with Lincoln Center	B (11.3)	A (6.9)	B (11.3)	A (6.2)

¹ The numbers in parentheses following levels of service are average delay per vehicle, measured in seconds.

Table 9
 PEAK HOUR LEVELS OF SERVICE (LOS)
 Governor's Square TIS Review
 Prepared by DelDOT

Unsignalized Intersection ¹	LOS per Landmark / JCM		LOS per DelDOT	
	Weekday PM	Saturday Mid-day	Weekday PM	Saturday Mid-day
2011 Existing				
Delaware Route 7 / Glendale Connector / Old Hamburg Road				
Northbound Delaware Route 7 Left-Turn	B	A	B (10.3)	A (9.3)
Southbound Delaware Route 7 Left-Turn	A	A	A (8.6)	A (8.6)
Eastbound Glendale Connector	E	C	E (37.2)	C (18.5)
Westbound Old Hamburg Road	F	E	F (208.0)	E (45.0)
2013 without development				
Northbound Delaware Route 7 Left-Turn	A	A	A (9.3)	A (9.8)
Southbound Delaware Route 7 Left-Turn	A	A	A (8.6)	A (8.9)
Eastbound Glendale Connector	F	C	F (61.3)	C (22.5)
Westbound Old Hamburg Road	F	F	F (*)	F (62.9)
2013 with development, without Lincoln Center				
Northbound Delaware Route 7 Left-Turn	B	B	B (11.1)	B (10.0)
Southbound Delaware Route 7 Left-Turn	A	A	A (9.1)	A (9.0)
Eastbound Glendale Connector	F	C	F (57.0)	C (24.5)
Westbound Old Hamburg Road	F	F	F (*)	F (73.9)
2013 with development, with Lincoln Center				
Signalized	D (47.8)	D (51.1)	D (47.8)	D (51.1)

¹ The numbers in parentheses following levels of service are average delay per vehicle, measured in seconds.

Table 10
 PEAK HOUR LEVELS OF SERVICE (LOS)
 Governor's Square TIS Review
 Prepared by DelDOT

Unsignalized Intersection ¹	LOS per Landmark / JCM		LOS per DelDOT	
	Weekday PM	Saturday Mid-day	Weekday PM	Saturday Mid-day
2011 Existing				
Northbound Delaware Route 7 Left-Turn	B	A	B (10.9)	A (9.2)
Eastbound Wellspring Drive	F	E	F (117.5)	E (36.5)
2013 without development				
Northbound Delaware Route 7 Left-Turn	B	A	B (11.3)	A (9.3)
Eastbound Wellspring Drive	F	F	F (196.7)	F (50.1)
2013 with development, without Lincoln Center				
Northbound Delaware Route 7 Left-Turn	B	A	B (11.2)	A (9.5)
Eastbound Wellspring Drive	F	F	F (196.7)	F (54.6)
2013 with development, with Lincoln Center				
Northbound Delaware Route 7 Left-Turn	B	A	B (11.5)	A (9.6)
Eastbound Wellspring Drive	F	F	F (263.9)	F (63.4)

¹ The numbers in parentheses following levels of service are average delay per vehicle, measured in seconds.

Table 11
 PEAK HOUR LEVELS OF SERVICE (LOS)
 Governor's Square TIS Review
 Prepared by DelDOT

Unsignalized Intersection ¹	LOS per Landmark / JCM		LOS per DelDOT	
	Weekday PM	Saturday Mid-day	Weekday PM	Saturday Mid-day
Delaware Route 7 / Freedom Road				
2011 Existing				
Northbound Delaware Route 7 Left-Turn	A	A	A (9.6)	A (9.2)
Eastbound Freedom Road	D	D	D (31.6)	D (30.3)
2013 without development				
Northbound Delaware Route 7 Left-Turn	A	A	A (9.8)	A (9.3)
Eastbound Freedom Road	E	D	E (36.3)	D (35.0)
2013 with development, without Lincoln Center				
Northbound Delaware Route 7 Left-Turn	B	B	B (10.6)	B (10.2)
Eastbound Freedom Road	F	F	F (68.9)	F (40.3)
2013 with development, with Lincoln Center				
Signalized	D (35.6)	C (26.7)	D (35.6)	C (26.7)

¹ The numbers in parentheses following levels of service are average delay per vehicle, measured in seconds.

Table 12
 PEAK HOUR LEVELS OF SERVICE (LOS)
 Governor's Square TIS Review
 Prepared by DelDOT

Signalized Intersection ¹	LOS per Landmark / JCM		LOS per DelDOT	
	Weekday PM	Saturday Mid-day	Weekday PM	Saturday Mid-day
Delaware Route 7 / Newtown Road				
2011 Existing	C (23.7)	C (22.6)	C (23.7)	C (22.6)
2013 without development	C (20.8)	C (21.5)	C (22.2)	C (21.9)
2013 with development, without Lincoln Center	C (22.9)	C (23.3)	C (22.5)	C (24.4)
2013 with development, with Lincoln Center	C (21.4)	C (24.7)	C (23.8)	C (23.5)

¹ The numbers in parentheses following levels of service are average delay per vehicle, measured in seconds.

Table 13
 PEAK HOUR LEVELS OF SERVICE (LOS)
 Governor's Square TIS Review
 Prepared by DelDOT

Signalized Intersection ¹	LOS per Landmark / JCM		LOS per DelDOT	
	Weekday PM	Saturday Mid-day	Weekday PM	Saturday Mid-day
Delaware Route 7 / Rivers End Drive				
2011 Existing	D (38.3)	C (27.4)	D (38.4)	C (27.8)
2013 without development	C (21.7)	C (31.2)	C (23.4)	C (28.1)
2013 with development, without Lincoln Center	C (23.1)	C (28.0)	C (25.3)	C (28.5)
2013 with development, with Lincoln Center	C (20.0)	C (26.1)	C (22.4)	C (28.6)

¹ The numbers in parentheses following levels of service are average delay per vehicle, measured in seconds.

Table 14
 PEAK HOUR LEVELS OF SERVICE (LOS)
 Governor's Square TIS Review
 Prepared by DeIDOT

Unsignalized Intersection (All-Way Stop-Controlled) ¹	LOS per Landmark / JCM		LOS per DeIDOT	
	Weekday PM	Saturday Mid-day	Weekday PM	Saturday Mid-day
Newtown Road / Smalleys Dam Road				
2011 Existing	A (9.7)	A (9.0)	A (9.66)	A (8.99)
2013 without development	A (9.7)	A (9.0)	A (9.69)	A (8.97)
2013 with development, without Lincoln Center	A (9.9)	A (9.2)	A (9.91)	A (9.24)
2013 with development, with Lincoln Center	A (9.9)	A (9.24)	A (9.91)	A (9.24)

¹ The numbers in parentheses following levels of service are average delay per vehicle, measured in seconds.