



STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
800 BAY ROAD
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DOVER, DELAWARE 19903

SHAILEN P. BHATT
SECRETARY

MEMORANDUM

TO: John Garcia, New Castle County Subdivision Coordinator
FROM: Troy Brestel, Project Engineer 
DATE: December 27, 2013
SUBJECT: **Dollar General - Townsend**
Results of Traffic Operational Analysis Review

We have reviewed the traffic operational analysis (TOA) for the proposed Dollar General (Tax Parcel 25-002.00-076) in the Town of Townsend, prepared by Davis, Bowen & Friedel, Inc. (DBF) dated November 8, 2013. The analysis evaluates the traffic impacts of the commercial development, proposed to be located on the northwest corner of the intersection of Delaware Route 71, Main Street, and Pine Tree Road (New Castle Road 25). The proposed development would consist of a 9,100 square foot dollar discount store. Two access points are proposed for this project: one full access on Delaware Route 71, opposite of Money Road (New Castle Road 457), and one full access on Main Street. Construction is expected to be complete by 2015.

Based on our review, we find that the intersections analyzed would operate at level of service (LOS) D or better during the p.m. and Saturday mid-day peak hours for both present and future conditions, and would meet the LOS criteria listed in Chapter 2 of the Standards and Regulations for Subdivision Streets and State Highway Access.

Should the developer choose to develop the property per the proposed land use listed above, we offer the following comments:

- 1) If the adjacent property (Tax Parcel # 14-016.01-007) to the north currently occupied by a liquor store redevelops in the future, the developer will work with the adjacent property owner in an attempt to negotiate a mutual agreement to allow cross-access between the site and the referenced adjacent property. All expenses for site improvements or site access improvements resulting from any adjacent property redevelopment and required due to the interconnection will be the responsibility of the redeveloping adjacent property owner causing the improvements. The developer reserves the right to prohibit interconnections

with competitors of the proposed Dollar General and / or unfavorable neighboring businesses.

- 2) The developer will modify the existing southbound right-turn lane at the intersection of Delaware Route 71, Main Street & Pine Tree Road. Modifications include the shortening of the right-turn lane due to the proximity to the proposed Delaware Route 71 site access, the addition of a stop sign & stop bar, and the readjustment of the pedestrian crosswalk so that it is in front of the stop bar. The developer should contact the Subdivision section for the details of these modifications.

- 3) The developer will convert the existing acceleration lane for the southbound right-turn at the intersection of Delaware Route 71, Main Street & Pine Tree Road into a dedicated right-turn lane for the site entrance on Delaware Route 71. A bicycle lane will not be needed for the right-turn lane serving the site. The developer should contact the Subdivision section for the details of these changes.

Please note that this analysis generally focuses on capacity and level of service issues. Level of Service tables for the existing and future cases are attached with this memorandum.

TB:km

cc: Dawson Green, Town Manager, Town of Townsend
D.J. Hughes, Davis, Bowen & Friedel, Inc.
J. Marc Coté, Assistant Director, Development Coordination
T. William Brockenbrough, Jr., County Coordinator, Development Coordination
Kevin Canning, Canal District Public Works Engineer, Canal District, DOTS
Pao Lin, Subdivision Manager, Development Coordination
Ahmed Abdelmoteleb, Traffic Engineer, Traffic, DOTS

Table 1
 PEAK HOUR LEVELS OF SERVICE (LOS)
 Dollar General – Townsend – TOA
 Prepared by Davis, Bowen & Friedel, Inc.

Unsignalized Intersection ¹	LOS per TOA		LOS per DelDOT	
	Weekday PM	Saturday Mid-Day	Weekday PM	Saturday Mid-Day
Delaware Route 71 / Money Road / Site Entrance				
2015 with development				
Eastbound Site Entrance	D (26.2)	C (20.3)	C (25.0)	C (19.9)
Westbound Money Road	D (28.9)	C (18.0)	D (28.1)	C (18.1)
Northbound Delaware Route 71 Left-Turn	A (8.7)	A (8.3)	A (8.7)	A (8.3)
Southbound Delaware Route 71 Left-Turn	A (8.7)	A (8.5)	A (8.6)	A (8.5)

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)
 Dollar General – Townsend – TOA
 Prepared by Davis, Bowen & Friedel, Inc.

Unsignalized Intersection ¹	LOS per TOA		LOS per DelDOT	
	Weekday PM	Saturday Mid-Day	Weekday PM	Saturday Mid-Day
Main Street / Site Entrance				
2015 with development				
Eastbound Main Street Left-Turn	A (8.0)	A (7.8)	A (7.8)	A (7.7)
Southbound Site Entrance	B (10.4)	B (10.1)	B (10.3)	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)
 Dollar General – Townsend – TOA
 Prepared by Davis, Bowen & Friedel, Inc.

Signalized Intersection¹	LOS per TOA		LOS per DelDOT	
	Weekday PM	Saturday Mid-Day	Weekday PM	Saturday Mid-Day
Delaware Route 71 / Main Street				
2013 Existing	B (12.2)	B (11.3)	B (11.2)	B (11.5)
2015 without development	B (12.8)	B (12.7)	B (12.3)	B (12.6)
2015 with development	B (12.9)	B (12.8)	B (12.3)	B (12.6)

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