

SUPPLEMENTAL TRAFFIC REVIEW
(SPECIAL USE PERMIT)

PROPOSED WAL-MART SUPER CENTER

TOWN OF LOCKPORT, NEW YORK

Prepared For:

Planning Board
Town of Lockport, New York

October, 2006

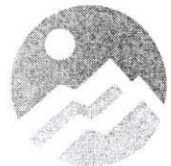


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I INTRODUCTION

Watts Engineering and Architecture, P.C. (Watts) was retained by the Town of Lockport to review a Traffic Impact Study (TIS) prepared by SRF Associates of Rochester, New York. The TIS was as an appendix to the Draft Environmental Impact Study (D.E.I.S.), prepared by APD Engineering of Rochester, New York, relative to the application of Wal-Mart to construct a Super Center on the site of the existing Lockport Mall on Transit Road in the Town of Lockport, New York.

Subsequent to this review, the Town of Lockport requested that additional traffic models be prepared by the applicant. In addition, in order to comply with the Special Use Permit regulations of the Town, which require that an independent traffic study be made for any development greater than 100,000 square feet, Watts was retained to conduct an independent study utilizing portions of the original T.I.S and addressing the additional traffic models.

The tasks assigned to Watts and discussed in detail in Section II, Review Tasks are as follows:

- 2.1 Review Site Plan (Alternative 1A by APD)
- 2.2 Review Modeling of Lincoln Drive (modeled by SRF)
- 2.3 Review Dead Ending of Shimer Drive East of Snyder Drive (modeled by SRF)
- 2.4 Review Modeling of Hamm Road and Dorchester Road as One-way Pair (modeled by SRF)
- 2.5 Model Elimination of Non-Signalized Access on Shimer Drive (Model by Watts)

II REVIEW TASKS

2.1 Review Site Plan

Watts reviewed the revised site plan (Alternative 1A) for traffic related features and have the following comments:

- The west driveway on Shimer Drive has been relocated to the east to line up with the face of the new Wal-Mart building, about 300 feet west of the signalized intersection of Shimer Drive and Snyder Drive. We find this acceptable since it will move the drive further from the Transit Road signal, avoid other Shimer Drive driveways and better serve access to the front of the Wal-Mart store.
- Of concern at this driveway, which has been designated as “right-in, right-out”, are internal traffic movements which will be made by vehicles that cannot exit left from this driveway. A number of these vehicles will follow an internal path to exit the site at the Snyder Drive signalized intersection. This traffic must pass by the seasonal garden center loading area and create conflicts at that location. In addition, there will be weaving movements with vehicles exiting the area behind the store.

- Emergency and truck access routes and heavy vehicle turn-around areas were reviewed and found to be acceptable. Turning movements were modeled for large semi-trailers using a WB-67 vehicle which has a 65 foot wheelbase with a total length of 73.5 feet.

Figure 2-1 illustrates the revised traffic distribution to be expected at this location and the appendix contains the LOS computations for the Snyder Drive intersection. Although the LOS of the signal will remain satisfactory with the increased traffic, the queues on the southbound approach will at times exceed the available storage length, especially when heavy vehicles attempt to exit the loading areas. The revised driveway location is acceptable, but its implementation may result in congestion problems at the southbound approach to the Snyder Drive signal if all turning movements were to be allowed at the west driveway. We therefore recommend that internal access to the Snyder Drive signal be restricted if possible, and/or that if the driveway is designated as right-in, right-out, its operation be revisited following the opening of Wal-Mart and any necessary modifications made.

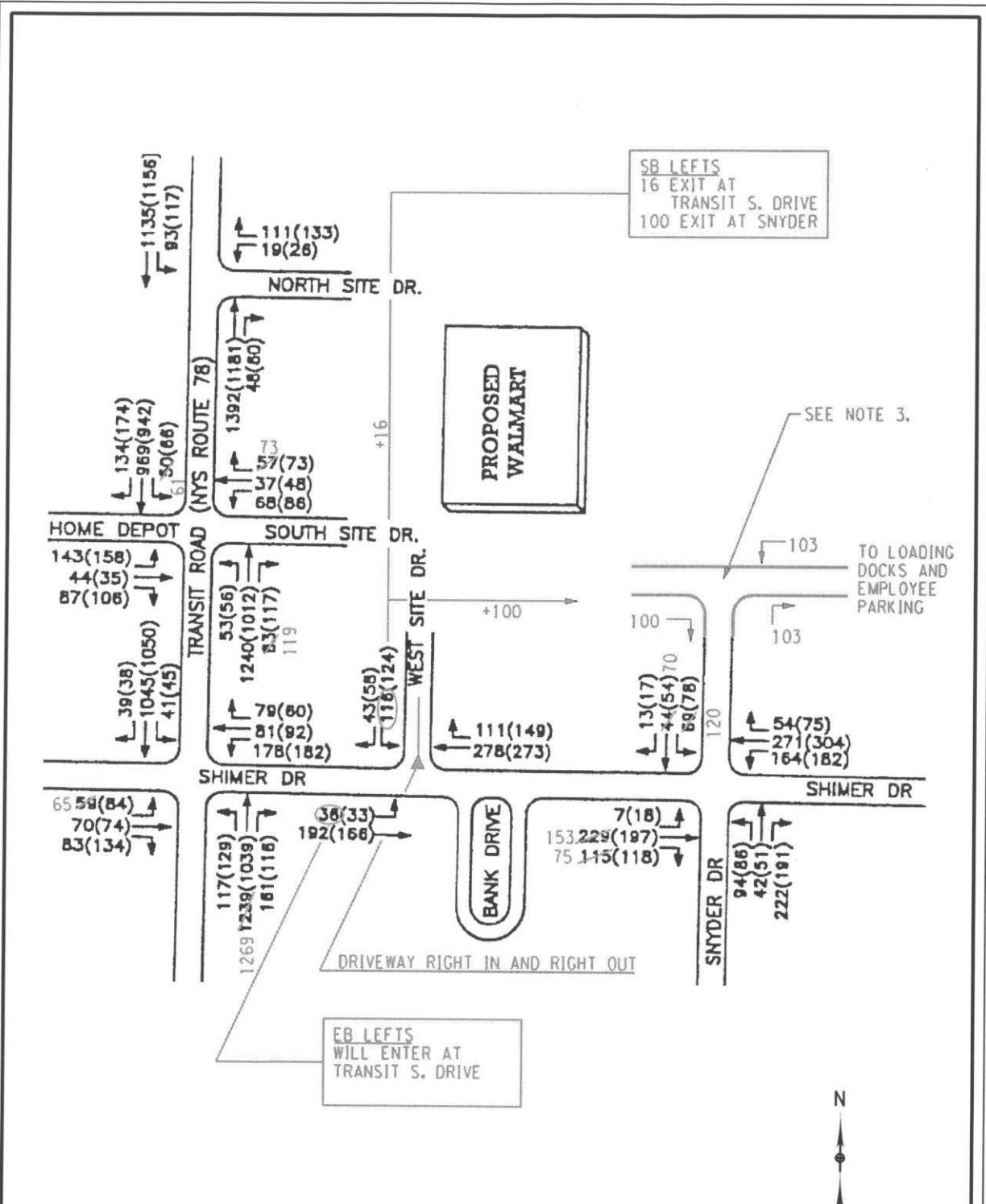
2.2 Review Modeling of Lincoln Drive

Watts made a field check of the site and have reviewed, and found acceptable, all turning movement counts, trip distributions, flow diagrams, signal operations and LOS calculations. We therefore find that Lincoln Drive and Lincoln Avenue were modeled correctly.

2.3 Review Modeling of Shimer Drive Dead-Ended East of Snyder Drive

Watts reviewed a model prepared by SRF Associates which envisions dead-ending Shimer Drive east of Snyder Drive. The model shows the following:

- Redistribution of Locust Street traffic will be necessary to accommodate traffic unable to turn west on Shimer Drive to access Snyder Drive businesses or to access Transit Road at a signalized intersection.
- Under this scenario, traffic wishing to access Snyder Drive businesses must either access Snyder from a Transit Road intersection or proceed south on Locust Street to Hamm Road, turn left on Hamm and right (north) on Snyder, with the reverse being true upon exiting. This will add additional traffic to Hamm Road, Snyder Road and the portion of Locust Street south of Shimer Road.
- Southbound Locust Street traffic which presently turns right on Shimer Drive to access Transit Road, would tend to seek other intersections to either access Wal-Mart from Transit or to continue south. This adds traffic to Lincoln Road, Dorchester Road and Hamm Road.
- When input into the Synchro traffic model, the redistributed traffic as outlined above resulted in unacceptable Levels of Service (LOS) at the intersections of Transit Road with Lincoln Drive and the Lockport Mall north driveway, as well as the intersections of Locust Street and Lincoln Road, Locust and Hamm, Snyder and Hamm and Snyder and Robinson.



- NOTES:
1. TRAFFIC REDISTRIBUTION BASED ON THE ASSUMPTION SIGNIFICANT TRAFFIC, DENIED THE WEST DRIVEWAY, WILL SEEK THE SIGNAL AT THE EAST DRIVE.
 2. FOR ILLUSTRATION, ONLY PM PEAK HOUR VOLUMES REVISED.
1239 1269
 3. AN INTERSECTION WILL FORM WHERE FRONT PARKING TRAFFIC MERGES WITH REAR STORE TRAFFIC.

DRAWING EXTRACTED FROM FIGURE-9 IN DEIS BY SRF

FIGURE 2-1
SITE PLAN ALTERNATE 1A
WEST DRIVE RIGHT-IN AND RIGHT-OUT

WATTS ENGINEERING & ARCHITECTURE
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 Buffalo, New York 14226
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TABLE 2-1
INTERSECTION CAPACITY ANALYSIS RESULTS
FULL DEVELOPMENT CONDITIONS - COMPARISON

INTERSECTION	FULL DEVELOPMENT CONDITIONS		FULL DEVELOPMENT CONDITIONS (Dead End Shimer)		FULL DEVELOPMENT CONDITIONS (One way Streets)	
	PM	SAT	PM	SAT	PM	SAT
	#1 Transit Road / Robinson Road					
Eastbound - Robinson Road	D	C	D	C	D	C
Westbound - Robinson Road	D	B	E	C	D	B
Northbound - Transit Road	C	C	C	C	C	C
Southbound - Transit Road	C	B	C	B	C	B
Overall LOS / Delay in sec/veh	C (32.1)	C (20.5)	C(35.0)	C(21.4)	C(31.9)	C(20.6)
#2 Transit Road / Hamm Road						
Westbound - Hamm Road	D	C	F(56.2)	D	D	C
Southbound Left - Transit Road	C	B	C	B	-	-
#3 Transit Road / Shimer Drive						
Eastbound - Shimer Drive	D	D	D	D	D	D
Westbound - Shimer Drive	C	C	C	B	D	C
Northbound - Transit Road	B	B	B	B	B	B
Southbound - Transit Road	B	B	B	B	B	B
Overall LOS / Delay in sec/veh	C (20.8)	B (19.2)	B(15.3)	B(16.7)	B(19.8)	B(19.1)
#4 Transit Road / Lockport Mall South Driveway - Home Depot Driveway (S)						
Eastbound - Home Depot Driveway	D	C	E	D	D	C
Westbound - Lockport mall Driveway	C	B	C	B	C	B
Northbound - Transit Road	A	A	A	A	A	B
Southbound - Transit Road	B	B	B	B	B	B
Overall LOS / Delay in sec/veh	B (16.7)	B (14.1)	B(18.9)	B(16.5)	B(16.3)	B(14.3)
#5 Transit Road / Lockport Mall North Driveway						
Westbound Left - Lockport mall Driveway	E	E	F(108.2)	F(121.8)	F(50.6)	E
Westbound Right - Lockport mall Driveway	C	B	D	C	C	B
Southbound Left - Transit Road	C	C	D	D	C	C
#6 Transit Road / Dorchester Road						
Westbound - Dorchester Road	E	D	F(489.3)	F(234.0)	A	A
Southbound Left - Transit Road	C	B	D	C	C	B
#7 Transit Road / Lincoln Avenue / Eckerd Drive						
Eastbound - Eckerd Drive	B	B	B	B	B	B
Westbound - Lincoln Avenue	C	B	C	C	C	B
Southbound Left - Transit Road	A	A	A	A	A	A
#8 Transit Road / Lincoln Drive / Summit Street						
Eastbound - Summit Street	D	D	D	D	D	D
Westbound - Lincoln Drive	D	D	F(324.6)	F(307.3)	F(81.3)	D
Northbound - Transit Road	B	B	B	B	B	B
Southbound - Transit Road	C	C	C	C	C	C
Overall LOS / Delay in sec/veh	C (25.7)	C (25.6)	F(83.9)	F(85.2)	C(30.4)	C(27.8)
#9 Shimer Drive / Lockport Mall West Driveway*						
Eastbound Left - Shimer Drive	A	A	A	A	A	A
Westbound Left - Shimer Drive	A	A	A	A	A	A
Southbound Left - Lockport Mall Driveway	C	C	B	B	C	C
Southbound Right - Lockport Mall Driveway	B	B	B	B	B	B
#10 Shimer Drive / Lockport Mall East Driveway						
Eastbound - Shimer Drive	B	B	A	A	C	B
Westbound - Shimer Drive	B	A	-	-	B	A
Northbound - Snyder Road	A	B	A	A	A	A
Southbound - Lockport Mall Driveway	C	D	B	B	D	D
Overall LOS / Delay in sec/veh	B (14.3)	B (13.5)	A(4.6)	A(4.9)	B(15.7)	B(14.8)
#11 Locust Street Extension / Lincoln Avenue						
Eastbound - Lincoln Avenue	B	C	C	F(204.6)	B	C
Westbound - Lincoln Avenue	F (87.8)	F (86.1)	F(347.3)	F(296.5)	E	F(84.6)
Northbound - Locust Street Extension	C	C	C	B	C	C
Southbound - Locust Street Extension	B	C	B	C	B	D
Overall LOS / Delay in sec/veh	D (38.1)	D (44.6)	F(96.1)	F(163.4)	C(34.8)	D(44.4)