

BRIAN KETCHAM ENGINEERING, PC
175 Pacific Street, Brooklyn, NY 11201, 718-330-0550

Questions relating to the following critique of the Greenport Retail Development, Town of Greenport, NY:

1. Trip generation rates are lower than the average rates reported by the Institute of Transportation Engineers (ITE) in their *Trip Generation Manual*. This is a huge project with a Wal-Mart supercenter. Experience is that supercenters draw from a ten mile radius and produce above average traffic. How can you justify lower numbers?
2. Not only do you low ball trip generation rates but you then apply adjustments to cut these low numbers by about a third. A careful examination of your analysis reveals internal inconsistencies and double counting leading to a further under reporting of project impacts. Again, how can you justify these assumptions?
3. ITE recommends for projects of this scale that you go out and collect data for similar projects in similar locations. You have not done this. Why not?
4. Even with the under reporting, your project will double and even triple traffic volumes along Route 9 (by your own reporting). How can you assume that this project will have no impact on this community? How can you ignore the effects of huge increases in traffic on the City of Hudson?
5. Your baseline conditions appear to be significantly lower than reported recently by NYSDOT. How would your traffic impact results change if baseline conditions increased by 20%?
6. Our traffic consultant has tested your analysis using a traffic simulation model assuming a 20% increase in volume. He found breakdown conditions along Route 9. He is anticipating even worse conditions in the City of Hudson (which you ignore). Do you not think it imperative that, for full disclosure, you correct your traffic, expand your network and analyze project impacts using a simulation model?
7. Route 9 includes a large number of unsignalized curb cuts. What effect will doubling or tripling traffic along Route 9 have on entering and leaving these locations?
8. If, as we anticipate, you have under reported baseline conditions and project impacts, then it is likely you will have (contrary to what you have reported) traffic impacts that require mitigation, especially in the City of Hudson and at some other locations along Route 9. For a project of this size and cost don't you think it your responsibility to correct the errors and fully mitigate project impacts?
9. Your traffic analysis does not mention parking. Is parking sufficient? Have you prepared a parking accumulation study?

10. Your site appears to have buildings scattered helter-skelter making travel difficult. Have you analyzed the movement of vehicles on your property? Can you provide assurances you have sufficient parking and mobility on the site to prevent spillback onto Route 9?
11. You analyze an evening weekday hour and a Saturday peak hour. Data is available that shows project impacts throughout the day, especially on Saturdays and holidays. Have you analyzed these conditions as well? What are the results?
12. Your traffic analysis is concise and lacks a lot of detail. For example, it is hard to overlay certain intersections with aerial maps. Moreover, the drawings showing your site are difficult to comprehend. Please provide detailed engineering drawings of the site and of all analysis locations.
13. You report traffic assignments based on existing traffic patterns yet you are doubling or tripling traffic along Route 9. Have you undertaken a gravity model to better establish where people are likely to depart from and return to when shopping at your retail center?
14. Our traffic engineer reports that this project will generate about 6 million vehicle trips a year, generating another 24 million miles of travel (including doubling or tripling traffic along Route 9 during for much of the day). Have you analyzed this increase in travel and the effects it will have on our community? Have you estimated the dollar value of the increase in congestion and lost productivity, the increase in traffic accidents and the cost of those accidents to motorists and pedestrians, or the increase in environmental damages and the resulting increase in the cost of health care?
15. Have you estimated the increase in police protection that this project will require and identified who will pay for this increased police protection? Will Widewaters pay these costs?

Critique of the Greenport Retail Development Traffic Analysis¹

First, I agree with the comments made by Marc Gerstman, Esq., in his letter of December 26, 2006 (pages 2-4), critiquing this project regarding the adequacy of the traffic analysis. My independent findings support his conclusions that the project study area must be revised to include critical intersections in the City of Hudson where this project will more than double traffic during evening and Saturday peak hours (and very likely at all time periods). In particular:

1. Trip generation rates used for the Greenport Retail Development are considerably lower than those reported by the Institute of Transportation Engineers (ITE) for *average* conditions. ITE reports high and low trip generation rates as well average rates; available data reinforces the observations that a successful project (a Wal-Mart supercenter) can produce double the ITE average rates.

Action Required: Widewaters must collect counts at similar sites for similarly sized retail developments to support or correct their low-balled trip generation rates.

2. Adjustments to the number of vehicle trips made by this project appear high and unjustified. "There are three trip-reducing "credits" that are applicable when estimating the amount of new trips...multi-use trips...pass-by trips...and trip chaining." Page 7 of the traffic report. Each reduction by itself produces a very substantial reduction in project related travel, a reduction that the traffic consultant itself reports is unrealistic as it actually exceeds to total amount of traffic moving along Route 9 without the project. So the numbers are softened up a bit in the traffic analysis. However, even with the adjustment, 672 trips are cut out on a Saturday peak hour, at a time when just 710 vehicles are reported to currently utilize Route 9 (baseline conditions). It is too absurd. For example, in justifying trip chaining values on page 7 of the traffic report, CME reports using reductions of 10% on weekdays and 15% on Saturdays based on their own data from the entrance to the Greenport Town Center (Figure 2.1). However, a careful examination of Figure 2.1 reveals that cross movements between Columbia Center and Greenport Town Center totals 5% on weekdays (not 10%) and 7% on Saturdays (not 15%). In addition to all this, a 565,000 shopping center incorporating a Wal-Mart supercenter is a "destination" shopping area not just another small retail center along Route 9 that shoppers hop between. The "adjustments" posited are simply not justified.

Action Required: Widewaters must return to the drawing board and come up with reasonable adjustments that can be justified based on experience elsewhere not on ITE's generic all inclusive and out of date Trip Generation Manual. The proposed "adjustments" or "credits" cut project impacts by

¹ Reference, "Traffic Impact Study, Greenport Retail Development, Town of Greenport, NY, CME Project No. 05-135d, prepared for Widewaters by CME, February 17, 2006. Also reviewed was the December 26, 2006 letter from Marc S. Gerstman, Esq. in regard to the Application of Widewaters, Greenport plus various traffic data provided by the New York State Dept. of Transportation from their web site.

about a third. Is this reasonable? Widewaters must make their case and do so without internal errors.

3. The proposed Project is adding thousands of trips along Route 9, 60% to and from the south moving through the City of Hudson (which is ignored). What is the impact of adding more than 1,000 trips an hour (albeit, assuming low trip generation rates) to roads in Hudson, particularly at the intersection of Route 9 with Route 23B?

Action Required: Using data collected from existing shopping center sites of similar size and including a Wal-Mart Supercenter, Widewaters must revise their traffic analysis and extend it into the City of Hudson.

4. Are baseline conditions realistic? ATR Counts were taken by CME in August 2005. Is August representative of worst case conditions or does it understate background conditions? The ATR counts provided in the CME traffic study report average volumes between 4:30 and 5:30 pm on a weekday to be 419 NB and 310 SB. CME used volumes along Rt. 9 of 489 NB and 363 SB for their baseline traffic analysis (Figure 2.1), higher than their ATR counts taken in August. However, counts taken by NYSDOT in the same location along Route 9 in September 2005 show higher volumes: for a Friday in the NB direction, 552 from 4 to 5 pm, 508 from 5 to 6 pm; similarly, in the SB direction, 420, 418, and 424 from 4-5, 5-6 and 6-7 pm. All higher than what CME used in the analysis. Low-balling baseline conditions has an enormous effect on project impacts, especially when traffic conditions are near capacity as they are as one moves south along Rt. 9 into Hudson. It is clear from the data available from NYSDOT that Widewaters did not report on worst case conditions and thereby has under reported project impacts.

Action Required: Widewaters must undertake more extensive automatic traffic recorder and turning movement counts over a longer period than reported during a worst case month. Or, they can adjust their baseline conditions upwards by 30% to account for worst case conditions.

5. A traffic simulation for Saturday peak hours using data provided in the Creighton Manning Engineering, LLP (CME) traffic study reveals that service levels at the intersection of Route 9 with the entry to the Greenport Town Center will increase from LOS C to a severe LOS F with just a 20% increase in traffic volumes. This increase is the minimum that will occur with corrections for background traffic and for corrections for more realistic trip generation rates. It may be even higher if we find that the requested trip generation discounts (multi-use credits, pass-by trips and trip chaining) suggesting even greater project impacts along the Route 9 corridor as well as in the City of Hudson itself are adjusted to more reasonable levels.

Action Required: Widewaters must extend its study area into the City of Hudson and utilize a traffic simulation model to estimate project impacts

especially those resulting from the spillback from over capacity intersections in the City of Hudson.

6. Route 9 provides a single lane of north and southbound traffic movement. There are a number of unsignalized curb cuts in close proximity to the project (within two miles) whose occupants will find it increasingly difficult to exit and enter with the more than doubling of traffic along Route 9. Widewaters must report on these impacts.

Action Required: All potential problem areas along Route 9 must be accounted for in the traffic simulation model to fully visualize the problems that will occur by doubling and tripling traffic volumes along Route 9.

7. Project traffic impacts will require a much more extensive and costly mitigation of traffic impacts than has been proposed especially in the City of Hudson.

Action Required: Based on preliminary analysis it is predictable that, contrary to reports, the Widewaters project will create problems along Route 9, especially within the City of Hudson. Widewaters must be held responsible for the full mitigation of any identified project impacts within approximately a three mile radius of the proposed site.

8. There is no consideration of parking requirements for this project. How much parking will be provided for this project and is this sufficient for a 565,000 sq. ft. shopping center?

Action Required: Widewaters must provide a parking accumulation study for this project for both weekdays and for a worst case Saturday.

9. Temporal distribution of traffic, especially on a Friday and Saturday when trip generation is greatest and the impact on the Greenport community will be spread out all day. A 565,000 sq. ft. shopping center with a Wal-Mart supercenter will produce impacts throughout the day, weekdays and weekends. These impacts must be disclosed for public discussion and understanding.

Action Required: Widewaters must provide a full temporal and seasonal analysis for a Friday and a worst case Saturday as well as report on the effects of holiday traffic (see attached temporal estimate).

10. More detailed mapping along with engineering drawings is needed in order to fully understand project impacts. For example, it is not at all clear where, exactly, the road analyzed along Route 9 and the Greenport Town Plaza is located based on information provided by CME in the traffic analysis or by cross-referencing local maps.

Action Required: Widewaters must provide detailed engineering drawings of both the project site and for all affected locations for community review before any action is taken on this project.

11. No on-site traffic analysis is provided. Stores appear to be randomly scattered throughout the site forcing shoppers to drive from one store to the next. This is unlike a consolidated shopping center wherein shoppers can walk from one store to the next. The reason the CME is asking for a 15% credit for trip-chaining is that shoppers will be forced to move from one store to another by car—a huge disadvantage for shoppers and the environment. This artifice does not deserve a credit; instead, it deserves a penalty. Moreover, the project site should be analyzed by itself as it will lead to internal congestion and a far greater impact on vehicular emissions. The proposed retail development layout will lead to as much as a 20% increase in vehicular trips not a 15% reduction as claimed. Claims to the contrary, Widewaters must defend its assertions with actual traffic and pedestrian counts at similarly arranged projects.

Action Required: Widewaters must redo its traffic analysis cutting its huge and unjustified reduction of project impacts. Widewaters must also undertake a detailed study of the movement of vehicles on the site to demonstrate that such movement, with limited parking, will not result in internal traffic problems that will spill back onto Route 9.

12. Assuming *average* ITE trip generation rates, a 565,000 sq. ft. Greenport Retail Development will add more than six million trips to the surrounding roads annually, generating approximately 24 million vehicle miles of travel. On an average weekday, this project will add approx. 16,000 trips along Route 9, more than doubling current traffic levels. Sixty percent of this amount or nearly 10,000 weekday trips will flood the City of Hudson; on Saturdays this number will increase to nearly 22,000 vehicle trips along the Route 9 corridor with nearly 13,000 moving through Hudson. Currently about 16,000 vehicles (average annual daily travel; NYSDOT) move along Route 9 approaching and departing Route 23B. As Mr. Gerstman has already requested, Widewaters must analyze the traffic impacts on the City of Hudson.

Action Required: Widewaters must undertake a study of the full daily impacts of the proposed project along Route 9 and especially within the City of Hudson.

13. Doubling of traffic in a catchment area of approximately 5 to 10 mile radius will result in significantly increased traffic and thereby significantly increased environmental and traffic safety damages as well as increased wasted travel time and lost productivity. These losses will have a very significant dollar cost to the community. Widewaters must evaluate these costs and report on their dollar value. They constitute a transfer of wealth from the community to the developer. These costs total in the tens of millions of dollars a year in damages for a project of this size that will be borne by the folks who live and work in the community and to the motorists already traveling along the Route 9 corridor who may have no interest in the Greenport Retail Development.

Action Required: Widewaters must investigate, characterize and quantify these costs to the public imposed by this project on an annualized basis.

14. Increased police protection. The evidence is clear that shopping malls of this scale, especially those with a Wal-Mart Supercenter, will attract a great deal of criminal activity—whether it be shop lifting or auto theft—that requires the increased attention of the nearby police department.

Action Required: Widewaters must examine the well documented history of these activities and estimate the effects on police protection for the Greenport community as well as their effect on town budgets. They must report on how they will pay for these increased services that could increase the police budget by several hundreds of thousands of dollars annually (see top page 2 of the Gerstman letter).

Brian T. Ketcham, PE
Brian Ketcham Engineering, PC
February 24, 2007

TABLE 1

ESTIMATED TRIP GENERATION FROM PROJECTS RELATED TO THE WIDEWATER SHOPPING CENTER IN THE TOWN OF GREENPORT
TRIP GENERATION RATES

ITE CODE	PROJECT TYPE				VEHICLE TRIPS PER 1,000 SQ. FT.				
					WEEKDAY	SATURDAY	AM PK HR	PM PK HR	SAT PK HR
813	Free Standing Discount Superstore	115,000	sf	Low	29.65	35.32	1.83	2.66	2.99
				High	57.67	71.62	3.84	5.21	6.92
				Avg.	46.96	55.06	3.17	4.03	4.91
862	Home Improvement Superstore	103,000	sf	Low	25.23	34.77	2.43	2.49	4.79
				High	39.31	49.99	4.4	4.42	5.62
				Avg.	35.05	45.67	3.62	3.84	5.4
820	Shopping Center (not used)	265,000	sf	Low	12.5	16.7	0.1	0.68	1.46
				High	270.89	227.5	9.05	29.27	18.32
				Avg.	42.92	49.97	1.03	3.74	4.97
850	Supermarket	80,000	sf	Low	68.65	168.41	5.94	6.5	5.38
				High	168.88	190.43	12.67	20	22.6
				Avg.	111.51	177.59	10.05	12.02	12.25
832	Gas Station (20 fueling positions)	Per Fueling Station		Low	73	73	7.33	8.67	8
				High	306	306	17.5	29.33	23.415
				Avg.	168.56	168.56	12.8	16.18	14.49

Reference Institute of Transportation Engineers trip generation rates, ITE Trip Generation Manual

ESTIMATED VEHICULAR TRIPS GENERATED BY PROJECTS
WIDEWATERS GREENPORT RETAIL DEVELOPMENT

ITE CODE	PROJECT TYPE				VEHICLE TRIPS				
					WEEKDAY	SATURDAY	AM PK HR	PM PK HR	SAT/SUN PK HR
813	Free Standing Discount Superstore	115,000	sf	Low	3,410	4,062	210	306	344
				High	6,632	8,236	442	599	796
				Avg.	5,400	6,332	365	463	565
				DEIS					
862	Home Improvement Superstore	103,000	sf	Low	2,599	3,581	250	256	493
				High	4,049	5,149	453	455	579
				Avg.	3,610	4,704	373	396	556
				DEIS					
820	Shopping Center (not included in total)	265,000	sf	Low	3,313	4,426	27	180	387
				High	71,786	60,288	2,398	7,757	4,855
				Avg.	11,374	13,242	273	991	1,317
				DEIS					
850	Supermarket	80,000	sf	Low	5,492	13,473	475	520	430
				High	13,510	15,234	1,014	1,600	1,808
				Avg.	8,921	14,207	804	962	980
				DEIS					
832	Gas Station (20 fueling positions)		sf	Low	1,460	1,460	147	173	160
				High	6,120	6,120	350	587	468
				Avg.	3,371	3,371	256	324	290
				DEIS					

**TABLE 2
ESTIMATE OF ANNUAL TRAVEL BY DAY AND SEASON
WIDEWATERS GREENPORT RETAIL DEVELOPMENT**

AVERAGE DAILY TRAVEL 15,977

Summary of weekly trips (annual average conditions)

Sunday	82%	13,117
Monday	95%	15,194
Tuesday	91%	14,603
Wednesday	95%	15,146
Thursday	99.5%	15,897
Friday	119%	19,045
Saturday	151%	24,125
Total Avg. Weekly		117,127

Variation by Month

January	85%	432,942
February	78%	396,398
March	92%	466,948
April	93%	473,038
May	105%	534,960
June	106%	538,005
July	101%	511,612
August	102%	518,211
September	95%	481,159
October	99%	501,969
November	102%	515,165
December	142%	719,709
		6,090,624

Assume 6 miles average travel distance for each trip

Annual Widewaters travel equals 4 * 6,090,624 = 24,362,496