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April 4, 2005

The Honorable Drew Fixell, Mayor
Village of Tarrytown
21 Wildey Street
Tarrytown, NY 10591

Re: Review of Proposed Lighthouse Landing Development
Village of Sleepy Hollow, New York

Dear Mayor Fixel:

Adler Consulting has conducted a careful and balanced review of the Lighthouse Landing Draft Environmental Impact Statement (DEIS). Based on this review, it is concluded that the DEIS does not present a complete and accurate picture of the impact the development will have on the Village of Tarrytown. Specifically, the Project's traffic impacts have been underestimated, no attempt was made to estimate the Project's impact on parking in the Tarrytown central business district (or, for that matter, in the Sleepy Hollow business district), no attempt was made to estimate the Project's impact on emergency response times in the village and no mitigation was proposed for the impacts associated with truck traffic generated by the Project, either before or after its completion. Even with these deficiencies, it is clear that the Project will have both traffic and parking impacts in Tarrytown which must be mitigated, either by practical physical improvements or through a major reduction in the Project size.

Given that the Project will have impacts in Tarrytown and that the Applicant has identified physical improvement measures to mitigate these impacts, some of which may require Village of Tarrytown approval (page III.I-44), the DEIS should recognize the Village as an involved agency in Section II.D.

The following is a brief discussion of the primary areas of concern which the Applicant must address in the Final Environmental Impact Statement (FEIS) to ensure that the Project's impacts are properly identified and mitigated:

A INCONSISTENCY IN PROJECT SIZE

Table 1 of the DEIS parking analysis performed by Walker Parking Consultants indicates that there will be 30,000 sf. of restaurant space at Lighthouse Landing, over and above the 146,600 sf. retail component. This additional 30,000 sf. is not mentioned elsewhere in the DEIS and was not evaluated in the Traffic Impact Study. This inconsistency should be resolved.

B. UNDERESTIMATION OF PROJECT TRAFFIC

The most fundamental element in determining a project's impact is estimating the amount of traffic that it will generate. Since traffic projections are just that, "projections", and because every site is unique, there will always be a margin of error. Therefore, to prevent impacts from being worse than predicted, the analyses should tend toward the conservative, rather than the liberal. Critical to the determination of project trip generation are the various "assumptions" that go into formulating a project's traffic generation potential. These assumptions are often made, not based on hard facts, but on analogous comparisons. For these reasons, assumptions made in determining a project's impact should also favor the conservative. Many of the comparisons made to support the trip assumptions in the DEIS are tenuous and, consequently, the resulting assumptions are more liberal than conservative.

B.1 Retail Trip Generation

Traffic generated by the project is underestimated during the critical Peak PM Highway Hour (of the nine instances where current traffic operating conditions are operating at Level-of-Service "D" or worse, eight are in the PM). Trip generation for the retail component of the development was for Specialty retail (Land Use 814), yet the retail component of the project (which is listed as 180,000 square feet [sf.] and is analyzed as 170,000 sf., 146,000 sf. Specialty Retail and 24,000 Movie Theater), includes a 24,000 sf. market/supermarket (pages II-11, III.I-23 and III.I-24). Supermarkets are not included in Land Use 814 and trips associated with this use should be calculated separately. Furthermore, retail trip projections for the critical Peak PM Hour were based on surveys of only five (5) sites, three of which were less than 25,000 sf. in size, and the handbook for the publication from which the data was taken recommends the use of caution in such incidents. (Incidently, as detailed on page III.I-26, there was no data at all for this Land Use for the AM and Saturday Peak Hours).

Alternatively, based on our experience in these matters, we believe that using the weighted average trip rate for shopping centers (Land Use 820) is also a more appropriate means of determining the number of trips that will be generated by the retail component of the development. Data for this land use was collected from over 400 sites during the peak PM hour and applying the weighted average trip rate it is calculated that the retail component of the development would generate 45 percent more traffic than projected in the DEIS.

It is further estimated that the 145,000 sf. retail component of the development will generate half as much off-Site traffic as the remainder of the Project's various components, combined, and only 25 percent less off-Site traffic than the volume generated by the Project's residential component. This indicates that, the retail component of the Project is disproportionally large compared to the remainder of the Project and that the Lighthouse Landing development is, primarily, a residential and retail development, not just a residential development with a complementary retail component.

To provide a reasonable and conservative evaluation of the traffic impact of the Project, as proposed, the traffic study performed for the DEIS should be revised to reflect the greater level of trip activity that will be generated by the retail component of the development. It should also be revised to reflect the correct size of the retail component of the development, if necessary.

B.2. Retail Trip Credit for Lighthouse Landing Patrons

The DEIS used a gravity model to project that 45 percent of the retail trips would come from within the Lighthouse Landing development. Yet this model was overly sensitive to one single, critical variable, the average distance from the proposed retail to the on-Site residences. The gravity model assumed this distance to be 530 feet (1/10 th of a mile) without any data demonstrating how this value was reached. **Adler Consulting** examined the gravity model and discovered that for every 50-foot change in the average distance from the proposed retail to the on-Site residences there is a 2.2 percent change in the proportion of retail trips that come from the residences at Lighthouse Landing. Without a detailed evaluation of the relative location of each residence to each retail store, the model is prone to widely varying results. Based on a review of information provided in the DEIS, **Adler Consulting** determined that the weighted average distance from the center of each residential block to the center of the Project's retail core (Beekman Place) is actually 0.15 miles.

Using this value, the model predicts that only 35 percent of trips will come from on-Site residences.

On page III.I-24 of the DEIS, the DEIS discusses the results of "a zip code survey at an existing Turco's Supermarket in Yorktown heights" and notes that "although the centroids for some zip codes fall outside the 5-mile radius, a significant portion of the areas encompassed by those zip codes lies within the five-mile radius." These statements and the information provided in Table 16-6 of the DEIS are remarkable. Considering that 15 percent of the surveyed customers came from as far away as Fishkill, Harrison, Mamaroneck, Mahopac, Cross River, Carmel and Briarcliff Manor, it is reasonable to assume that a substantial portion of the surveyed customers from Somers, Ossining, Katonah and Croton, whose zip codes straddled the five-mile radius, also came from greater than five miles away. Based on a review of the data as well as the zip codes and their location relative to a five-mile radius from Turco's Yorktown Heights store, it is calculated that approximately 35 percent of the surveyed customers probably came from outside the five-mile radius.

Furthermore, and perhaps more importantly, the survey revealed that 47 percent of the supermarkets customers came from the Yorktown Heights zip code, which is estimated to have a population of approximately 25,000. Based on this information, it seems most unreasonable and certainly not conservative to assume that 45 percent of Lighthouse Landing retail shoppers will come from the on-Site resident population of 2,961.

The Institute of Transportation Engineers' (ITE) *Trip Generation Handbook* contains data which indicates that, for a 145,000 sf. retail facility, 35 percent of PM and Saturday trips are captured from passing traffic. Based on this information and a review of the gravity model, it is **Adler Consulting's** opinion that it is more appropriate to assume that 35 percent of retail traffic will come from the other components of the Lighthouse Landing development. In performing our analyses, which are attached, we determined that the use of this value is slightly elevated when compared with the overall proportion of the remainder of Site traffic which would be expected to be retail oriented (22 percent). A value of 20 percent would, in our opinion, be more reasonable and conservative. This, again indicates that the retail component of the development is disproportionate to the remainder of the Project.

To provide a reasonable and conservative evaluation of the Project's traffic impacts, the traffic study performed for the DEIS should be revised to reflect the lower level of retail trip activity that will be generated from the other on-Site components of the development.

B.3. Residential Trip Credit for Mass Transit

In addition to the DEIS's overly optimistic estimates of the level of traffic generated by the retail component of the development, it also was overly optimistic in assuming how many motorists would opt to use mass transit. A trip credit of 40 percent was taken for all residential trips to account for mass transit use. This value was based on a single morning's survey at one building located in close proximity to the Yonkers train station and on a study of workers' places of employment at a single development next to the New Rochelle inter-modal center.

Neither of these studies provides a complete picture of trip patterns and neither is sufficiently comparable with the configuration of Lighthouse Landing to be used for analysis purposes. The Scrimshaw building is an eight-storey building next to the Yonkers train station and no data was provided for the PM hour. Lighthouse Landing consists of two-storey townhouses and three- to five-storey apartments and condominiums. Further, if a new station is not built, these residences will be 0.6 miles from the Philipse Manor station and 0.7 miles from the Tarrytown station (DEIS at page III.I-45). The Avalon Development is a 28-storey development next to the New Rochelle inter-modal center and the study only considered where employees worked. According to the DEIS (page III.h-10) 1,349 of Lighthouse Landing's 2,999 resident population (45 percent) will not be in the workforce and many of them will be driving to other activities.

Based on our experience, it is reasonable to assume a 35 percent credit for exiting trips and a 5 percent credit for entering trips in the morning and the reverse in the evening at the Site's apartments and condominiums, assuming the new station is built next to the development. This credit could be significantly less for the "No-Station" if an effective and shuttle service is not provided (as discussed later in this report), since it would place the Lighthouse Landing residences a half mile further from the train.

To provide a reasonable and conservative evaluation of the Project's traffic impacts, the traffic study performed for the DEIS should be revised to reflect the lower level of mass transit use by the residents of Lighthouse Landing.

B.4. Senior Housing Trip Generation

Based on a review of the data published by the Institute of Transportation Engineers, which showed two groups of data sources, as well as studies **Adler Consulting** has performed at two senior apartment developments on the Westchester-Putnam border, it is our opinion that senior housing, such as that proposed at the Lighthouse Landing Site, will generate traffic at a rate of 0.2 trips per unit in the morning peak highway hour, 0.23 trips per unit in the evening peak highway hour and 0.3 trips per unit in the peak highway hour on a Saturday.

To provide a reasonable and conservative evaluation of the Project's traffic impacts, the traffic study performed for the DEIS should be revised to reflect the greater level of trip activity that will be generated by the senior housing component of the development.

B.5 New Trips to a New Station

The trip-generation calculations that took into account the construction of a new train station did not properly factor in the impact of constructing 400 hundred new commuter parking spaces at the new station. As detailed on page III.I-27 of the DEIS, it is calculated that 200 trips will arrive at and 20 trips will depart from this parking lot during the morning peak hour, while the reverse will occur during the evening peak hour. Yet the DEIS incorrectly claims that "a new station does not necessarily result in new vehicle trips" (DEIS page III.I-25) and generously assumes that all of these trips just transfer from the Philipse Manor or (primarily) the Tarrytown train stations.

Yet the proposal to provide 400 parking spaces comes "in response to Metro-North's desire to address area parking needs within the Hudson line Corridor" (DEIS, page II-12), emphasis added. As documented on page III.I-37 of the DEIS, "there is currently a significant demand for parking at the Tarrytown station" and most of this demand is generated by out-of-town motorists. Unfortunately for the communities in the vicinity of Metro-North stations, it truly is a case of "if you build it, they will come" where parking is concerned. The DEIS should have assumed that almost all of the 220 peak-hour trips at the new station would be new trips on the roadway network, not just a reassignment of existing motorists. To provide a reasonable and conservative evaluation of the Project's traffic impacts, the traffic study performed for the DEIS should be revised to reflect this.

Taking all of these factors into consideration, **Adler Consulting** reevaluated the projected trip generation of the proposed Lighthouse Landing development. This analysis leads us to conclude that the Peak AM and Saturday trip projections in the DEIS are reasonable but that traffic generated by the development during the critical Peak PM Highway Hour, which is attached, will be 43 percent greater than evaluated in the DEIS. To properly evaluate the Project's impact, the DEIS intersection capacity analyses need to be re-executed with the revised trip generation values.

C. LIMITED STUDY AREA

The scope of the study included in the DEIS omits several key intersections along and surrounding the south end of Broadway in the Village of Tarrytown which the traffic analysis in the DEIS identifies as being significantly adversely impacted by the proposed Lighthouse landing development. Based on the results of the DEIS, the scope of the traffic analysis performed for the environmental review of this Project should be expanded, as described below.

C.1 Miller Park Neighborhood

On page 2 of correspondence dated June 6, 2003, concerning the scoping document for Lighthouse Landing, **Adler Consulting** noted that "many of the Village of Tarrytown's intersections and thoroughfares are already overburdened" and that any significant increase in traffic will end up "driving more non-locals to the local residential streets." This will significantly impact the quality of life for the residents of these otherwise tranquil neighborhoods. At that time, **Adler Consulting** requested that "the Environmental Impact Statement (EIS) for the proposed development must adequately document these impacts and identify measures which will adequately mitigate them."

The DEIS has neither identified nor mitigated these impacts, although it does reveal that they will be impacted. It indicates that 4 percent of trips generated by Project will come from and return to the Miller Park neighborhood. Based on our experience, which has been corroborated repeatedly in conversations with Village of Tarrytown officials, not only will almost all of these trips pass straight through the neighborhood, but the proportion of Project traffic that will do so will be far in excess of the 4 percent projected. Existing traffic volumes in the Ferry Landings development DEIS indicate that 33 percent of Franklin Street traffic diverts through the Miller Park neighborhood in the peak direction and 15 percent diverts through the neighborhood in the off-

peak direction. Based on this information, it is calculated that the Lighthouse Landing development will add 120 cars to this residential neighborhood during the peak hours.

Table 10-15 of the DEIS traffic study indicated that it will take 211 seconds, on average, to make the right turn from Franklin Street to Broadway in the a.m. and that it will take another 70 seconds, on average to pass southbound through the intersection of Benedict Avenue with Broadway. Add to that the estimated 30 seconds that it will take to pass eastbound through the intersection of Franklin Street with Washington Street (which is not analyzed in the DEIS) and one realizes that it will take over five (5) minutes to travel from Riverview Avenue along Franklin Street to Broadway and then south past Benedict Avenue during the morning peak-hour. It won't take very long for the residents of Lighthouse Landing, the majority of whom will be leaving via this route to go to work at this time, to realize that there is an alternative route through Miller Park.

In the opposite direction, Table 10-15 indicates that it will take 147 seconds, on average, to travel north along Route 9 through Benedict Avenue and 35 seconds, on average, to turn onto Franklin Street. Add to this the estimated 50 seconds that it will take to pass westbound through the intersection of Franklin Street with Washington Street and it is apparent that it will take almost four (4) minutes to travel from Benedict Avenue along Broadway to Franklin Street and then west past Riverview Avenue. Employees and patrons traveling to work and shop at Lighthouse Landing in the morning will be quick to discover the alternate route through Miller Park.

In the evening, the situation is projected to be even worse. Based on the information provided in Table 10-16, and assuming that it takes 50 seconds to pass through the intersection of Franklin Street with Washington Street in the eastbound direction and 40 seconds in the westbound direction, the DEIS indicates that it will take over nine (9) minutes to travel from Riverview Avenue along Franklin Street to Broadway and then south past Benedict Avenue, while it will take over five (5) minutes to travel from Benedict Avenue along Broadway to Franklin Street and then west past Riverview Avenue. Table 10-17 indicates that conditions on Saturday will be the same as during the weekday mornings.

On page 12 of the June 6, 2003 letter on the Project Scoping, **Adler Consulting** requested that "the EIS should document why and how motorists divert" to these local roadways. The information provided in the DEIS supports the conclusion that the impact on the Miller Park neighborhood must be accurately quantified in the FEIS and that a real program of improvements must be identified and evaluated to mitigate this impact. A traffic simulation model of the following streets and all the intersections thereon should be developed:

- Franklin Street, from Riverview Avenue to Broadway;
- Broadway from Franklin Street to Church Street;
- Church Street;
- Independence Street;
- Park Avenue;
- Miller Avenue;
- Riverview Avenue;
- Glen Street;
- Bridge Street; and,
- MacArthur Lane (south of Bridge Street).

The simulation analysis should show the current flow patterns through these streets, how they will change with time, how they will be impacted by the Project and how the Project's impact will be mitigated by improvement measures. Measures to be considered include traffic calming devices and a closed-loop, coordinated signal system which would incorporate the existing signal at the intersection of Broadway with Benedict Avenue, the new signal at the intersection of Broadway with Franklin Street and possibly a new signal at the intersection of Washington Street with Franklin Street.

C.2 Broadway at Prospect Avenue

As documented in the January 2005 joint communique from the traffic consultants for the Villages of Tarrytown and Sleepy Hollow, the intersection of Prospect Avenue with Broadway is "arguably the most congested intersection in the Village of Tarrytown" (page 3). On page 12 of the June 6, 2003 letter on the Project Scoping, **Adler Consulting** specifically requested that this intersection be included for analysis in the DEIS.

The DEIS analyses revealed that the Project will have a significant adverse traffic impact at the closest signalized intersecting streets upstream and downstream from this intersection and that improvements were identified to mitigate these impacts. It is, therefore, clear that the Project will also have a significant adverse traffic impact at the intersection of Broadway with Prospect Avenue. The FEIS should include an analysis of this intersection and identify necessary mitigation measures as appropriate.

C.3 Broadway at Tappan Landing Road

The intersection of Tappan Landing Road with Broadway is unique to the study area in that there is no other outlet for traffic from this residential neighborhood and Broadway has only one through-lane per direction at its intersection with Tappan Landing Road. Because of the very heavy existing volumes of traffic on Broadway at this location are confined to a single lane in each direction, there are very few gaps in traffic for vehicles to make a left turn out of Tappan Landing Road. The DEIS indicates that the Lighthouse Landing development will add almost 400 new trips to Broadway during the peak hours which will represent an increase of approximately 15 percent. This will clearly worsen an already bad condition for the residents of this neighborhood who have no alternative route to avoid the difficulties of exiting on the Route 9.

C.3 The H-Bridge

The Ferry Landings DEIS identified that "visibility and conflicting turning movements reduce the efficiency and capacity of the H-Bridge Ramps. Therefore, it is recommended that new interconnected traffic signals be installed at the H-Bridge Ramp intersections." Although the Village of Tarrytown is hopeful that the proposed Ferry Landing development will proceed to completion, it is still possible that the development program will come undone, with the result that no improvements will be made to the H-Bridge.

Since the Lighthouse Landing development is projected to generate almost three times as much traffic across the H-Bridge as the Ferry Landings development, it stands to reason that, if the Ferry Landings development falters, the Lighthouse Landing development would have similar impacts requiring the same mitigating measures, yet no analyses of the two intersections at either end of the H-Bridge were performed. The FEIS must

either perform a contingency analysis, indicating the Project's impacts and proposed mitigation measures in the event that the Ferry Landings development does not materialize, or it must commit in writing to implementing the improvements identified in the Ferry Landings DEIS at the H-Bridge if such a circumstance arises.

D. MISREPRESENTATION OF EXISTING TRAFFIC CONDITIONS

On page III.I-12, the DEIS indicates that the majority of intersections operate at level of service "E" or better. This statement, taken together with the statement of page III.I-10 that "in downtown areas similar to the study area, Level of Service E is generally the limit of acceptable delay" would imply that current traffic operating conditions in the study area are generally acceptable. There is no accepted engineering standard that postulates that Level of Service E conditions are "acceptable". The Highway Capacity Manual 2000, upon which the traffic study analyses are based, states that "most design or planning efforts typically use service flow rates at LOS C or D, to ensure an acceptable operating service for facility users" (page 2-3). Certainly, waiting between 55 and 80 seconds to pass through a signalized intersection may be tolerated with some frustration but it should not be characterized as "acceptable" and the DEIS should be revised to reflect the criteria documented in the Manual from which the software was developed.

As indicated in a joint January 2005 correspondence from the traffic consultant's for the Villages of Tarrytown and Sleepy Hollow, "the principal areas of traffic congestion in the Villages are along Broadway," that "there is no single rush hour, rather a three-hour rush" (emphasis added) and that "the number of motorists using the corridor is greater than the corridor's capacity." It is under these already-at-capacity conditions that the impact of the more than 1,000 peak-hour trips that will be added to the area's roadways by the Lighthouse Landing development must be considered.

E. INADEQUATE EVALUATION OF TRUCK TRAFFIC

Item 3.b. of the approved scope for the Project requires that the DEIS "analyze existing and future truck traffic activity, including numbers of trucks." The DEIS contains no quantitative evaluation of post-construction truck traffic, no analysis of traffic operating conditions during construction, no recognition of the current limitations of only the available truck route, and only a passing discussion regarding

what is quoted on the very first page of the DEIS (I-1) as "perhaps most importantly, ... an extraordinary opportunity to reconnect the Hudson River waterfront to the downtown core of Sleepy Hollow."

E.1 Connecting Beekman Avenue to Lighthouse Landing

Access across the Beekman Avenue Bridge is presently restricted by a 12-ton weight limit. This restriction has many ramifications, the most important of which could involve life and death consequences and others which relate to the nature of the development and the fair-share burden placed upon the neighboring community.

If the Beekman Avenue Bridge over the Metro-North Railroad has a structural deficiency that is compromised by vehicles exceeding the 12-ton limit, then emergency response apparatus, such as pumpers with 500+ gallon water tanks, may not be able to cross the bridge in response to calls at the Lighthouse Landing development, as indicated by the Fire Chief on page III.D-9 of the DEIS. This issue is of paramount importance. With the repopulation of this site with approximately 3,000 people, the fire department will have to respond to the development with all units on a regular basis. Even with the potential relocation of Union Hose Company #2 to the property, as indicated on pages III.D-9 and III. D-13, it is irresponsible to require the remaining five companies to go to Tarrytown and return across the H-bridge to the Site, especially during rush hours. In the event of a significant incident, such a situation could have significant and far reaching consequences if it is not properly addressed in the Project design and approval process.

The FEIS must include the structural engineer's "load ratings analysis" and not just a statement that the capacity of the bridge is "approximately 12 tons". The FEIS should also contain a comparison with the loads exerted by the Village's largest emergency response vehicles when crossing the bridge. Only through this analysis can the Village determine its needs for the long-term safety and welfare of its new residents, as well as others that will visit the retail, office, theater and hotel components of the Project. Furthermore, since the Village intends to service the refuse needs of the development with its own trucks across the Beekman Avenue bridge (as indicated on page III.D-11 of the DEIS), a similar weight analysis should be performed for loaded garbage vehicles.

E.2 Analysis of Future (post-construction) Traffic

The DEIS essentially concludes that truck activity "cannot be precisely determined" (page III.I-28) and does not even offer an opinion on whether post-construction truck traffic will impact traffic operating conditions. This is not an analysis. The FEIS should quantify the expected volume of peak-hour truck traffic that will be generated at the Site, discuss how it will access the Site, and detail the impacts that it will have along these routes. In addition to the refuse trucks, UPS trucks, FedEx trucks and buses that will service all components of the development, the FEIS should provide reasonable estimates of the number and size of delivery vehicles, serving the retail and hotel components of the Site as well as the number of moving vehicles that will be traveling to the Site as the 1,500 residential units initially are occupied. As a rough estimate, it can be expected that 1 percent of the peak-hour trips will be large or heavily-loaded trucks and that an additional 2 percent will be panel-type trucks. Based on these values, and accounting for the DEIS's underestimation of the Project traffic, it is preliminarily estimated that 40 trucks will enter or exit the development during the peak hour.

Despite the fact the intersection of Broadway with Central Avenue is the only legitimate way out of the Site for truck traffic, the DEIS traffic study assigns absolutely no traffic, trucks or otherwise, to this intersection. This oversight should be corrected in the FEIS and of the concentrated impact of Project truck traffic at this location should be accounted for, as described above.

E.3 Limitations of Existing Truck Route

With the current 12-ton weight restriction on the Beekman Avenue Bridge, all access to the Tarrytown and Sleepy Hollow waterfront is via the H-Bridge only, from whence all trucks are required to proceed up Central Avenue in Tarrytown to Broadway. At that point, trucks heading north must turn left while trucks heading south must turn right.

The intersection of Central Avenue with Broadway requires particular attention in evaluating the future traffic impact of the proposed development. It is an unsignalized intersection, with a considerable upgrade approaching the intersection and tight curb radii. These conditions place an exceptional burden on trucks. It takes a long time for larger and heavier trucks to start on the Central Avenue upgrade after they stop at the stop sign. Consequently, they must wait for exceptionally long gaps in the traffic stream before they can

proceed. Furthermore, because of the tight curb radii, larger vehicles wishing to turn right must cross over into the northbound lane of traffic on Broadway to make the turn. As a result, both left and right-turning large or heavy vehicles typically have to wait for suitably long gaps in both directions of traffic on Broadway simultaneously. These vehicles have a tremendous impact on the operation of this intersection that is not adequately accounted for in the intersection capacity analyses performed for the DEIS.

The Highway Capacity analysis for the intersection of Broadway with Central Avenue calculates that the intersection can accommodate 50 percent more cars than it can trucks. In fact, for the combination of large and small trucks (3 and 7 percent, respectively) that are expected to pass through this intersection from the development, it is estimated that the intersection could accommodate four (4) times as many cars as it could trucks. It is, therefore, concluded that the heavy-vehicle factor used in the intersection capacity analyses underestimates the effect of truck at this intersection by a factor of eight. It is therefore, recommended that the percentage of trucks entered into the software used to evaluate this intersection be eight-times the actual truck percentage. Furthermore, in determining the actual percentage of trucks at this intersection, the Applicant should specifically project how many additional large and small trucks (together constituting the truck percentage) the project will add to each movement at this intersection. The FEIS should quantitatively evaluate the impact of truck-traffic generated by the Lighthouse Landing development on the intersection of Central Avenue with Broadway using the above-describe procedures.

E.4 Fair-Share Burden

The 12-ton wight limit on the Beekman Avenue Bridge restricts access to the waterfront in both Villages via the Tarrytown roadway network. For qualitative evaluation purposes only, it is roughly estimated that the Lighthouse Landing development will generate three times as much truck traffic as the Ferry Landings development. Similarly, it is roughly estimated that two-thirds of all waterfront development-generate trucks wish to travel to the south of the waterfront and one-third want to travel to the north.

Were there no weight restriction on the Beekman Avenue Bridge, it is, therefore, calculated that for every nine overweight trucks leaving the Lighthouse Landing development, there would be three leaving the Ferry

landings development, that three of the Lighthouse Landing Trucks would use the Beekman Avenue Bridge and six would use the H-Bridge, that one of the Ferry Landings Trucks would use the Beekman Avenue Bridge and two would use the H-Bridge. Thus, without the weight restriction, there would be four trucks on Beekman Avenue for every eight on Central Avenue, one of the four trucks would be from the Ferry Landings development and six of the eight trucks would be from the Lighthouse Landing development. The trucks on Beekman Avenue would be headed to the north, while those on Central Avenue would be headed to the south. Clearly, under this condition, the Village of Tarrytown would already be carrying the greater burden of truck traffic.

With the current weight restriction, there will be no large trucks on Beekman Avenue and twelve trucks on Central Avenue, increasing the burden of truck traffic on Tarrytown Roads by 50 percent. The impact of these additional trucks, would likely be even greater, since the intersection of Beekman Avenue with Broadway is signalized and has wide turning radii, while the intersection of Central Avenue with Broadway is unsignalized and has small turning radii. As a result, left-turning trucks can be accommodated with reasonable ease at Beekman Avenue, while they can only be accommodated with extreme difficulty at Central Avenue.

Parenthetically, it is noted that the Bridge's clearance over the railroad is documented in the report as only 21 feet. New York State Department of Transportation has recently implemented a policy to increase the clearance of Bridges on the Hudson Line to at least 22"-6" as funds become available, to allow taller freight cars to use the line. The development of Lighthouse Landing provides a unique opportunity to both achieve this goal and to put the bridge back to work the way it was originally intended, providing access to riverfront properties for the transport of goods.

On page III.l-13 of the DEIS it is stated that "the Applicant is amenable to contributing its fair share of the cost to improve the Beekman Avenue Bridge." Without the repair of the Bridge, it is estimated that the Lighthouse Landing development would more than double the level of truck traffic on Central Avenue in Tarrytown. **In order that the already heavy burden of this additional truck traffic is not placed <u>entirely</u> on the Village of Tarrytown, the Lead Agency should require, as a condition of approval, that the**

Applicant repair/replace the Beekman Avenue Bridge and that this work is done before construction commences.

F. INADEQUATE EVALUATION OF CONSTRUCTION TRAFFIC IMPACTS

Based on the information provided on page III.L-2 of the DEIS, it is estimated that construction of the development will generate up to 350 peak-hour employee trips and 160 or more truck trips per day (80 entering and 80 exiting trips). It is noted that this is more traffic that will be generated by any other project recently approved in either Village and is even more traffic than will be generated by the entire Ferry Landings development. Furthermore, because of the weight restriction on the Beekman Avenue Bridge, it can be expected that almost all of the truck trips will be added to the H-Bridge and Central Avenue corridor in Tarrytown. The DEIS provided no further analysis of the impact of these trips, other than to say (also on page III.L-2) that other modes of transporting construction materials "may be feasible" but will be "dependant on a variety of factors."

Clearly, the addition of just the employee traffic to the Study area will, in and of itself, have a significant adverse impact, which will be exacerbated by the addition of truck traffic. The FEIS should acknowledge these impacts and identify real mitigation measures, not ones that may or may not be feasible, depending on prevailing economic conditions. Failing this, the lead agency should require the Applicant to complete the ultimately-identified traffic mitigation measures, including the repair/replacement of the Beekman Avenue Bridge, prior to the commencement of a significant level of construction activity.

G. FUTURE CONDITIONS WITHOUT THE PROJECT

It is noted that the DEIS made projections for future traffic conditions without the Project by estimating the volume and assignment of the original Ferry Landings application, which included 250,000 sf. of office or Research and development space, along with 98 condominiums/townhomes, a new Village Hall, an aquatic center and some restaurant space. The Ferry land development has since been changed considerably to reduce the volume of traffic that it will generate by approximately half.

While the DEIS Traffic Study did account for the reoccupancy of the former IBM building by New York Life, which is outside the study area, it did not anticipate the

reoccupancy of the former Grand Union Supermarket, which is in the heart of the study area, by Walgreens.

The DEIS traffic study did not include anticipated development in the Eastview section of Mount, Pleasant and Greenburgh, including, but not limited to, the recently approved 113,500 sf. Home Depot. The Home Depot study shows that this development will generate traffic around the Tarrytown Lakes.

By not accounting for the large volumes of traffic that will be generated by these projects in the Study area, the DEIS traffic study does provide a sufficiently accurate baseline fo future traffic operating conditions without the project from which the Lighthouse Landing's development can be evaluated. The traffic study should be revised to more accurately reflect the traffic that may be generated by the Ferry Landings development and to include the traffic that will be generated by these other projects.

H. How will Shuttle Service Function

The DEIS makes multiple references to a shuttle service that will ferry Lighthouse Landing residents to the Philipse Manor and Tarrytown train stations if a train station is not built (pages II-13, II-24, III.I-26, and III.I-37), but provides no specific information regarding this service, which will be vital to mitigate the Project's impact if a new train station is not built, other than that the vehicle used will seat 20 passengers. On Page III.H-10, the DEIS indicates that there would be between 400 and 500 shuttle riders during the peak hours in the morning and evening. The FEIS must detail how this system will operate. Information that needs to be provided includes:

- How long will it take for each shuttle to make a round trip?
- How many stops it will make?
- Which trains will be serviced?
- How many shuttle buses will be needed? and,
- How funding for the service will be self sustaining?

I. Impact on Emergency Response Times

The DEIS indicates that some of the major corridors in the Village of Tarrytown, namely Broadway Franklin Street, are currently operating at capacity, that existing

congestion will only worsen with the passage of time and that the Lighthouse Landing development will only exacerbate the problem. Emergency response providers are already encountering problems on Broadway, particularly Cobb Lane to Franklin Street, with overcrowded conditions. When an emergency response vehicle is trying to travel through these areas, there are not sufficient places for the heavy volume of traffic on the roadways to let them pass. This issue was raised in our June 3, 2003 correspondence and is again apparent in the review of the DEIS, yet there was no attempt to address the issue. The FEIS must identify acceptable measures to relieve the additional congestion caused by Project traffic, such as the installation of a fire-preemption-system at the key signalized intersection, to mitigate for the impact of the additional Project traffic.

J. PROJECT PHASING AND MONITORING

Little could be found in the DEIS regarding phasing of the Project. If the Project is to be built in phases, the Applicant should be required to monitor the level of traffic generation that occurs after each phase is built and to compare it to what was projected. In the event that the monitoring program indicates that the impacts of the Project will be greater than projected in the DEIS, the developer should be required, as a condition of approval, to further mitigate the Project's impact or reduce the ultimate size of the Project accordingly.

Similar to monitoring Project-traffic during phasing, the Applicant should be required to monitor the level of traffic activity along Broadway as various regional projects such as the Route 9A Bypass are completed. The final Project build-out could be conditional upon the materialization of beneficial impacts to the US Route 9 corridor from other regional projects. These issues should be addressed in the FEIS.

K. PRELIMINARY IDENTIFICATION OF PROJECT TRAFFIC IMPACTS

Based on a review of the DEIS, it is clear that the proposed Lighthouse Landing development will have a significant impact on traffic at the following locations in the Village of Tarrytown, the locations of which are shown on the attached map:

1. **County House Road at Neperan Road (around the Tarrytown Lakes) -** Overall failing ("f") conditions will be worsened by approximately 13 percent in the morning peak hour and by 10 percent in the evening peak hour, although greater increases in delays will be encountered on some of the

individual movements. The analyses indicate that it will take longer than a minute to pass through this intersection and the Project's impact can be mitigated by the installation of a traffic signal (p III.I-41).

2. **US Route 9 at Main Street** - Borderline tolerable ("E") conditions at this intersection are projected to be worsened to clearly failing ("F") conditions during the morning peak hour at this location, with delays projected to increase by 45 percent. During the evening peak and Saturday hours, clearly failing conditions are projected to be worsened by approximately 25 percent. The analyses indicate that it will take longer that 3 minutes to pass through this intersection and the Project's impact can be mitigated by the elimination of 15 on-street parking spaces to create north and southbound left-turn lanes on Broadway (p III.I-41). Even with these improvements, overall failing conditions are still projected to prevail after the Lighthouse Landing development is completed.

3. **Main Street at Depot Plaza** - The DEIS indicates that the addition of Project traffic to this intersection will reduce operating conditions from a Level-of-Service "B" to a Level-of-Service "F" during the Peak AM and Saturday Hours and the prevailing failing conditions in the PM will be worsened by a factor of almost 2. These increases in delays will be experienced almost exclusively by motorists leaving the Lighthouse Landing development. The DEIS indicates that signal timing modifications will be required "to accommodate the future traffic volumes" and mitigate for the Project's impacts (p III.I-42).

4. **Riverview Avenue at Franklin Street** - The DEIS indicates that the addition of Project traffic to this intersection will reduce operating conditions from a Level-of-Service "c" to a Level-of-Service "f" during the Peak AM and PM Hours and that one possible improvement to mitigate for the impact of project traffic "would be the restriction of left-turn movements from the Riverview Avenue approach" (p III.I-42). Furthermore, the Applicant should indicate the impact of the prohibition of left-turns at this location on traffic operating conditions at the adjacent intersection of Miller Avenue with franklin Street.

5. **Franklin Street at Broadway** - Although the DEIS acknowledges on page III.I-42 that "a police officer is stationed at this intersection to direct traffic during critical time periods" the Existing and No-Build analyses do not reflect this condition. They should be revised accordingly so that the Project's true

impact and the actual benefit of the proposed mitigation can be evaluated. The DEIS "identified improvements" (page III.I-42) for this intersection include the installation of a traffic signal and the elimination of approximately 20 on-street parking spaces to create a northbound left-turn lane. The DEIS analysis of the Build conditions, with the traffic signal, indicates that overall failing conditions will continue to prevail at this location during the Peak PM Highway Hour, even with the mitigation, with an average wait of more than two minutes to get through this intersection.

6. **Benedict Avenue at Broadway** - The Applicant should indicate whether the Build analyses of this intersection have included the left-turns that are proposed to be prohibited at the intersection of East Franklin Street with Broadway. Regardless, the DEIS indicates that operating conditions will be reduced from "D" to failing "F" Levels-of Service during the Peak AM and Saturday Hours as a result of the Lighthouse Landing development. During the Peak PM Hour, operating conditions are projected to be reduced from "E" to failing "F" conditions. To "accommodate future traffic volumes at this intersection (page III.I-43) the DEIS recommends that the northbound right-turn lane be converted to a through/right-turn lane. This recommendation also requires the elimination of the on-street parking as discussed for the previous intersection.

7. **NY Route 119 at Broadway** - The DEIS indicates that the addition of Project traffic to this intersection will reduce operating conditions from a Level-of-Service "C" to a Level-of-Service "E" during the Peak PM Hour. To mitigate for this impact, the DEIS recommends that the Route 119 approach be restriped to permit right turns from the middle lane as well as from the right-hand lane (p III.I-43).

8. **NY Route 119 at the I-287 Westbound Ramps** - The DEIS indicates that the addition of Project traffic to this intersection will increase the average delay on "E" level-of-Service operating conditions by 32 percent during the Peak PM Hour. To mitigate for this impact, the DEIS recommends that slight signal timing modifications be implemented.

9. **Central Avenue at Broadway** - Although the DEIS does not assign any traffic to the intersection of Central Avenue with Broadway (as previously discussed) it does note that prevailing operating conditions will be at failing ("f") levels

during the Peak PM and Saturday Hours, suggesting that the addition of Project traffic to this intersection will also have an impact at this location, which should be mitigated.

10. **Broadway at Prospect Avenue** - Although the DEIS does not analyze the intersection of Broadway with Prospect Avenue, the FEIS should include an analysis of this intersection. This intersection is listed in the joint January 2005 correspondence from the Villages' traffic consultants as "arguably the most congested intersection in the Village of Tarrytown." The DEIS analyses revealed that the Project will have a significant adverse traffic impact at the closest signalized intersecting streets upstream and downstream from this intersection, for which mitigation was identified. It is, therefore, clear that the Project will also have a significant adverse traffic impact at this intersection. The FEIS should include an analysis of this intersection and identify necessary mitigation measures as appropriate.

11. **Broadway at Church Street, Independence Street and Park Avenue** - Although the DEIS does not analyze the intersection of Broadway with Prospect Avenue, the FEIS should include an analysis of this location. It is expected that, cumulatively, 100 peak-hour trips will be added to these unsignalized approaches to Broadway, which already experience considerable delays during the Peak PM Highway Hour, and that these additional trips will have a significant impact at these locations.

12. **Broadway at Tappan Landing Road** - Although the DEIS does not analyze the intersection of Broadway with Prospect Avenue, the FEIS should include an analysis of this intersection. It is expected that, the development will increase traffic volumes by approximately 15 percent at this intersection, which is currently experiencing poor operating conditions and where residents have no alternative means of accessing the surrounding roadway network.

13. **Miller Park Neighborhood** - The DEIS fails to recognize or mitigate for the Project's traffic impacts on the already overburdened Miller Park neighborhood where, based on the data available in the Lighthouse and Ferry Landing's developments, it is calculated that more than 100 trips will be added to these local residential streets unless specific and effective traffic calming measures are identified and implemented.

14. **The H-Bridge** - The Ferry Landings DEIS identified that that Project would impact the H-Bridge but that the impact could be mitigated by the installation of new, interconnected traffic signals at the H-Bridge Ramp intersections. Since the Lighthouse Landing development is projected to generate almost three times as much traffic across the H-Bridge as the Ferry Landings development, it stands to reason that the Lighthouse Landing development will also impact the H-Bridge and will require the same mitigation.

These are the impacts that were identified with the DEIS-projected traffic volumes. With actual Project-volumes expected to be 40 percent greater during the critical PM hour, the resulting impacts will be even worse than predicted. A detailed review of the intersections in Sleepy Hollow is not provided, although it is noted that the Project will have similar impacts in that municipality.

L. IMPACTS OF IDENTIFIED MITIGATION MEASURES

In reviewing the DEIS, it is clear that the proposed Lighthouse Landing development will have a significant adverse traffic impact on many intersections in the neighboring Village of Tarrytown. On page III.I-36 the DEIS indicates that "mitigation measures have been identified for certain of the locations impacted by the Lighthouse Landing Project." In reviewing these measures it has been determined that many of them will require Village of Tarrytown approval and some will have their own, unintended impacts. These mitigation measures are:

- Installing a traffic signal at the intersection of County House Road with Neperan Road - signalizing this intersection, which falls under the jurisdiction of the Village of Tarrytown, would significantly impact the bucolic nature of the Tarrytown Lakes, particularly on quiet evenings and mornings. Both sides of the Tarrytown lakes are popular recreational zones. The FEIS should identify an alternative means of mitigating the Project's traffic impact at this location.

- Modifying the signal timing at the intersection of Main Street with Depot Plaza to accommodate traffic leaving the Site would require the consent of the Village of Tarrytown.

- Prohibiting left turns from Riverview Avenue to Franklin Street, which is a Village-owned intersection, would push all of the left-turning vehicles to Miller Avenue, creating an even greater impact at that location. Prohibiting left turns

at Miller Avenue would, in turn, push all the traffic over to the intersection of Main Street with Washington Avenue, requiring a reanalysis of that intersection. The FEIS should identify an alternative means of mitigating the Project's traffic impact at the intersection of Riverview Avenue with Franklin Street.

- Prohibiting left turns from East Franklin Street to Broadway may require a modification of Village Code to permit enforcement;

- The elimination of on-street parking at the intersection of Main Street with Neperan Road will have an adverse impact on the businesses in those neighborhoods where, as demonstrated in the DEIS, there is already a shortage of parking in this area. It will also alter the character of the Village at this location, as indicated on page III.I-1, where it is stated that "the retention of parking is sometimes desirable to maintain low traffic speeds in these areas, and thus increase pedestrian safety." The Village should determine whether any action is required on its behalf to eliminate parking at this location. The FEIS should identify an alternative means of mitigating the Project's traffic impact at this location.

- The elimination of on-street parking on Broadway from Benedict Avenue through Franklin Street will have an adverse impact on the businesses along that portion of Broadway, many of which do not have off-street parking. The Village should determine whether any action is required on its behalf to eliminate parking at this location. The FEIS should identify an alternative means of mitigating the Project's traffic impact at this location.

- Allowing two lanes of traffic to turn right from NY Route 119 to Broadway concurrently with a "WALK" phase on for the crosswalk across Broadway is in contravention of New York State Department of Transportation (NYSDOT) design criteria, as detailed in Subsection 272.6(c)(2) and Subsection 273.7(d)(1) of New York Codes Rules and Regulations, as well as inferred in Subsection 5.10.5.5.E of the NYSDOT *Highway Design Manual*. The proposed mitigation presents an adverse safety impact to pedestrians using the crosswalk. As indicated on page III.I-13 of the DEIS, this was the intersection that experienced the highest number of accidents (25) in the 3-year study period. The FEIS should identify an alternative means of mitigating the Project's traffic impact at this location.

M. IMPACT OF Additional Parking on Tarrytown's Business District

The DEIS contained a 21-page study on the adequacy of parking at Lighthouse Landing yet not a single sentence, as far as we could ascertain, regarding the impact of the additional vehicles that will visit and park in the central business districts of the Village's of Tarrytown and Sleepy Hollow.

The DEIS indicates the destination of seven percent of Lighthouse Landing residential trips will be in the Sleepy Hollow central business district and a further two percent will be in the Tarrytown central business district. Applying the DEIS gravity model to the main Street area in Tarrytown indicates that Lighthouse Landing will increase retail parking demand in the Tarrytown Main Street area by approximately 7.5 percent (this was conservatively assuming a distance of 0.15 miles from Main Street residential to Main Street retail).

A review of the parking survey data provided in Table 12-3 of the DEIS revealed that there was barely enough parking on the February Saturday afternoon that the survey was conducted. Nine (9) of the 10 block-faces on Broadway from College Avenue to Elizabeth Street were effectively fully-parked and that a total of 98 percent of these spaces were occupied. Furthermore, the two municipal lots in this area were at 87 percent of capacity. It is our experience that demand is even greater in the spring, summer and fall. Interestingly, although there was a parking survey of Beekman Avenue (which indicated that 12 of the 16 block faces were fully parked), there was no survey of Main street Parking in Tarrytown. However, a survey of the municipal lot at Main and Washington indicated that it was completely full from 12:00 p.m. to 2:00 p.m. on same Saturday. Clearly, the DEIS indicates that there is no room for additional parking in the Village of Tarrytown's central business district on Saturdays (conditions are not much better on weekdays at lunchtime). It also indicates that the residential component of the Lighthouse Landing development will generate additional parking in this area, impacting the area's residents. The FEIS needs to identify how much additional parking will be generated and how the impact of this additional parking will be mitigated, possibly by reducing the size of the Project.

N. TRAFFIC SAFETY

On page III.I-13, the DEIS notes that "the locations that did exceed the Statewide average accident rates were along US Route 9 at Benedict Avenue, (signalized), and West Franklin Street and Central Avenue (both unsignalized) ..... and Main at Washington Street and Cortlandt Street/Depot Plaza (both signalized)." It is noted

that the DEIS indicates that the Project will have a significant adverse impact at all of these intersections (except for the intersection of Main Street with Washington Street), yet there was no attempt to quantitatively assess the impact of these additional trips on traffic safety or to identify potential mitigation, other than the capacity-related improvements previously described.

As indicated in Table 12-1, the documented accident rates were particularly high at the intersections of Central Avenue with Broadway (where it was more than two times the average rate) and Main Street with Washington Street (where it was 36 percent higher than the average rate). These two locations are of particular concern because, in the first instance, all of the Project's truck traffic will pass through this intersection, and, in the second instance, there is a high level of pedestrian activity.

The FEIS should provide a quantitative analysis of the Project's impacts at these intersections, which should include identifying factors that are contributing to the elevated accident rates and identifying any necessary mitigation measures.

O. PROJECT DENSITY

As revealed by the DEIS, the proposed Lighthouse Landing development is projected to add a significant volume of additional traffic to the already overburdened roadways in the Village of Tarrytown, resulting in the traffic, safety and parking impacts previously described. Many of the mitigation measures identified in the DEIS have their own, unintended consequences or are not in keeping with the Village's vision for the future of Tarrytown. No mitigation measures have been identified for some of the impacts. An alternative means of mitigating the Project's impact is to reduce the volume of traffic that it will generate through scaling back the size of the various components of the development.

At your direction, **Adler Consulting** conducted a sensitivity analysis to determine what level of development on the property might result in an impact-level which the Village of Tarrytown could consider tolerable and, thus, minimize the need for impactful mitigation measures. It is noted that the sensitivity analysis was essentially a linear comparison of the increase in Project traffic (adjusted to account for errors in the DEIS) with the projected increase in delays. As such, it requires a far more detailed analysis to confirm our findings.

This sensitivity analysis strongly suggests that a 50 percent reduction in the overall program size (or some other combination of reductions yielding the same decrease in traffic, e.g., a 60 percent reduction in the size of the retail and residential components of the Project but no change in the office, hotel or cinema components), would reduce the increases in delays attributable to the Project to a level that the Village of Tarrytown may be willing to consider in a favorable light.

As an example, included are Tables 1.0 and 1.1 of the Ferry Landings FEIS, indicating how the downsizing of that development was accomplished. Coincidentally, it is noted that the net reduction in off-Site traffic associated with the downsizing was 50 percent. It is also noted that only a 20 percent reduction was taken for mass transit and only a 20 percent reduction was taken for on-Site synergy between the various development components.

It is, therefore, recommended that the FEIS include intersection capacity analyses for a development alternative in which the volume of peak-hour traffic generated by the Lighthouse Landing development is 50 percent less than would actually be generated by the program proposed in the DEIS.

P. CONCLUSIONS

Based on the information presented in the DEIS, it is clear that the Project will have significant adverse impacts on the Village of Tarrytown in four specific ways and that suitable mitigation has not yet been proposed.

The additional traffic generated by the development will impact the residents of Miller Park as well as area motorists, primarily on Broadway from Main Street to NY Route 119 and on Franklin Street. There are no means of increasing capacity at most of the impacted intersections without other adverse impacts and the only way to practically reduce the impact at these locations is to reduce the size of the Project.

The traffic generated by the development will impact emergency response times along Broadway and Franklin Street as well as response times to Phelps Memorial Hospital from Irvington and the south end of the Village of Tarrytown. This impact cannot be mitigated but can be minimized by installing a traffic signal preemption system and by reducing the density of the Project.

The additional truck traffic generated by the project will significantly adversely impact residents and motorists along the Central Avenue corridor and in particular at the intersection of Broadway with Central Avenue, a high accident location. This impact cannot be mitigated but can be minimized by replacing/repairing the Beekman Avenue Bridge and by reducing the density of the Project.

The increased population in Sleepy Hollow will adversely impact the ability of residents in the Main Street area in Tarrytown to find parking within a reasonable distance of their homes. This impact can be mitigated by the construction of additional parking in the Main Street area or by reducing the density of the Project.

Based on our detailed evaluation of the information provided in the DEIS, we believe that reducing the density/traffic generation of the Project by 50 percent will likely limit the project's impacts to three areas, for which mitigation can be provided:

- The Miller Park neighborhood - where traffic calming devices, new signals at the intersections of Franklin Street with Broadway and, possibly, Washington Street, and a closed-loop coordination system may mitigate for the Project's impact;

- Emergency response times - where the installation of a traffic signal preemption system may mitigate for the Project's impact; and,

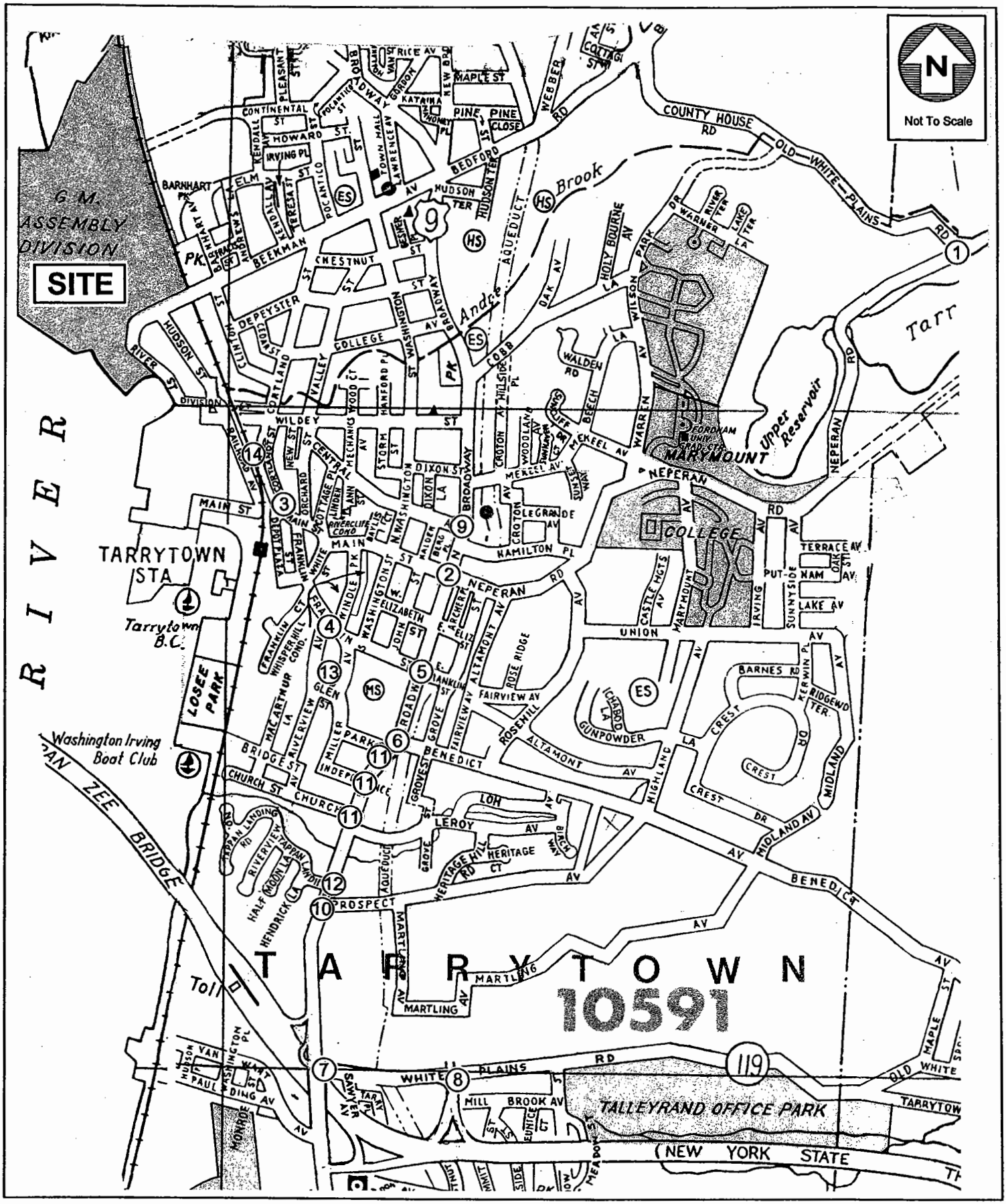
- Truck traffic - where the repair/replacement of the Beekman Avenue Bridge may mitigate for the Project's impact.

It is noted that all of the Project's impacts will commence when construction of the Project begins in earnest. Therefore, mitigation for these impacts should be in place prior to this. Furthermore, for a project of this size and timeframe, it is appropriate that traffic in successive phases be monitored to ensure the effectiveness of the mitigation measures, in particular of the shuttle service to the train if the proposed new train station is not built.

We trust that this information will assist you in your continued review of this important project. Please do not hesitate to contact us if should you have any questions.

Sincerely,
Adler Consulting,
Transportation Planning & Traffic Engineering, PLLC

John Canning, P.E., P.T.O.E
Senior Associate



Project:
Lighthouse Landing
Sleepy Hollow, NY

Title:
Impacted Intersections in Tarrytown

TABLE NO. 1.0

HOURLY TRIP GENERATION RATES AND
ANTICIPATED SITE GENERATED TRAFFIC VOLUMES

BASED ON SITE PLAN

FERRY LANDINGS	ENTRY HTGR*	ENTRY VOLUME	EXIT HTGR*	EXIT VOLUME
128 CONDOMINIUM UNITS (1) (ITE LAND USE 230)				
WEEKDAY PEAK AM HIGHWAY HOUR	0.08	10	0.36	46
WEEKDAY PEAK PM HIGHWAY HOUR	0.35	45	0.17	22
SATURDAY PEAK HOUR	0.25	32	0.22	28
280,000 S.F. OFFICE SPACE (1) (ITE LAND USE 710)				
WEEKDAY PEAK AM HIGHWAY HOUR	1.36	381	0.19	53
WEEKDAY PEAK PM HIGHWAY HOUR	0.25	70	1.24	347
SATURDAY PEAK HOUR	0.20	56	0.20	56
10,000 S.F. COMMERCIAL SPACE (2) (ITE LAND USE 814)				
WEEKDAY PEAK AM HIGHWAY HOUR	1.35	14	1.35	14
WEEKDAY PEAK PM HIGHWAY HOUR	1.35	14	1.35	14
SATURDAY PEAK HOUR	1.35	14	1.35	14
SUB TOTAL				
WEEKDAY PEAK AM HIGHWAY HOUR	-----	**405**	-----	**113**
WEEKDAY PEAK PM HIGHWAY HOUR	-----	**129**	-----	**383**
SATURDAY PEAK HOUR	-----	**102**	-----	**98**
EXISTING OFFICE SPACE 60,000 S.F. OFFICE SPACE (1) (ITE LAND USE 710)				
WEEKDAY PEAK AM HIGHWAY HOUR	1.36	82	0.19	12
WEEKDAY PEAK PM HIGHWAY HOUR	0.25	15	1.24	75
SATURDAY PEAK HOUR	0.20	12	0.20	12
TOTALS				
WEEKDAY PEAK AM HIGHWAY HOUR	-----	487	-----	125
W/ CREDIT		**390**		**100**
WEEKDAY PEAK PM HIGHWAY HOUR	-----	144	-----	458
W/ CREDIT		**115**		**366**
SATURDAY PEAK HOUR	-----	114	-----	110
W/ CREDIT		**91**		**88**

* - THE ABOVE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 7TH EDITION, 2003.

(1) - INCLUDES A 20% MASS-TRANSIT CREDIT AND (2) INCLUDES A 20% INTERPLAY CREDIT.

TABLE NO. 1.1

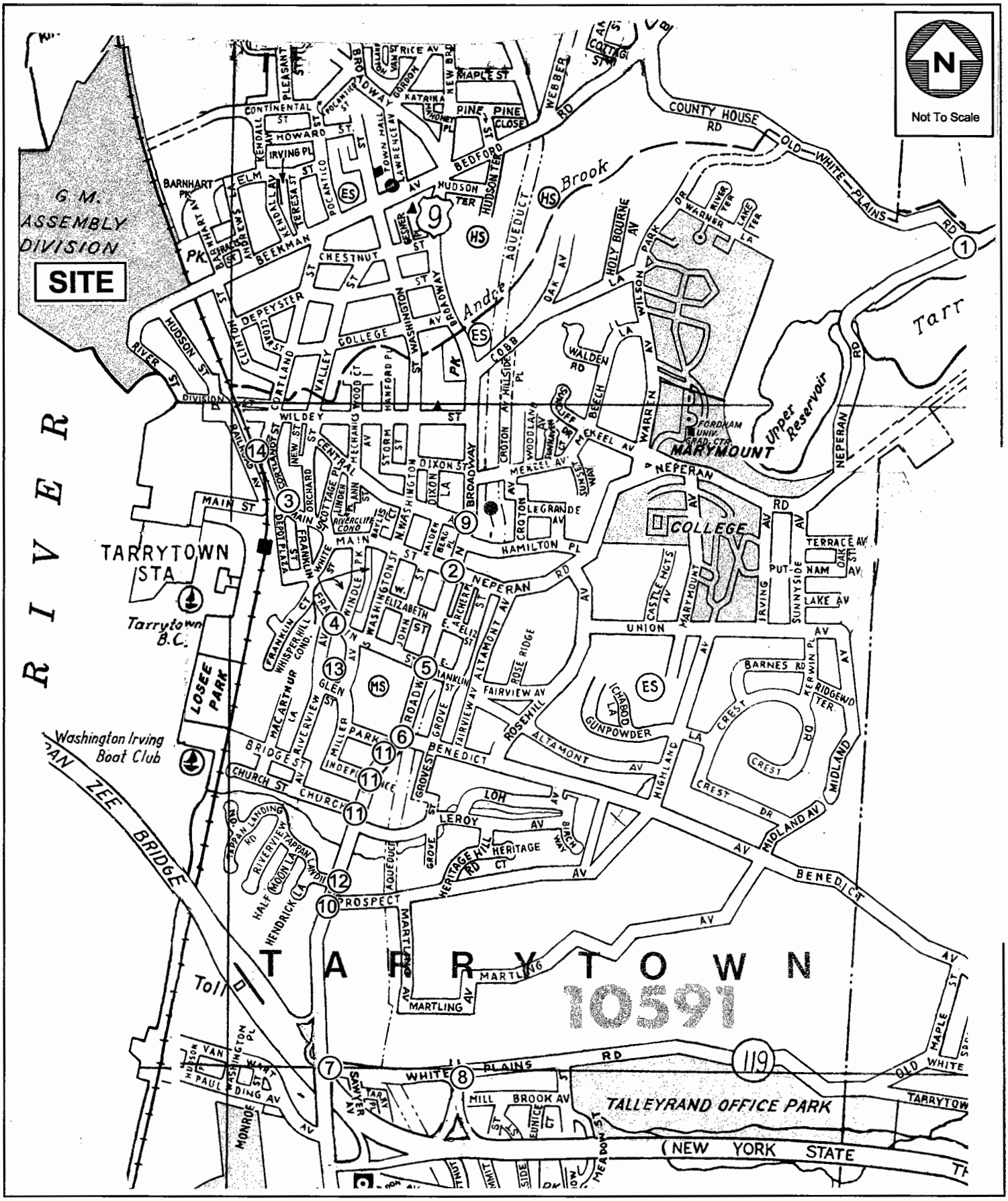
HOURLY TRIP GENERATION RATES AND
ANTICIPATED SITE GENERATED TRAFFIC VOLUMES

ALTERNATE 3

FERRY LANDINGS	ENTRY HTGR*	ENTRY VOLUME	EXIT HTGR*	EXIT VOLUME
228 CONDOMINIUM UNITS (1) (ITE LAND USE 230)				
WEEKDAY PEAK AM HIGHWAY HOUR	0.08	18	0.36	82
WEEKDAY PEAK PM HIGHWAY HOUR	0.35	80	0.17	39
SATURDAY PEAK HOUR	0.25	57	0.22	50
0 OFFICE SPACE (1) (ITE LAND USE 710)				
WEEKDAY PEAK AM HIGHWAY HOUR	1.36	0	0.19	0
WEEKDAY PEAK PM HIGHWAY HOUR	0.25	0	1.24	0
SATURDAY PEAK HOUR	0.20	0	0.20	0
40,000 S.F. COMMERCIAL SPACE (2) (ITE LAND USE 814)				
WEEKDAY PEAK AM HIGHWAY HOUR	1.35	54	1.35	54
WEEKDAY PEAK PM HIGHWAY HOUR	1.35	54	1.35	54
SATURDAY PEAK HOUR	1.35	54	1.35	54
SUB TOTAL				
WEEKDAY PEAK AM HIGHWAY HOUR	-----	72	-----	136
WEEKDAY PEAK PM HIGHWAY HOUR	-----	134	-----	93
SATURDAY PEAK HOUR	-----	111	-----	104
EXISTING OFFICE SPACE 60,000 S.F. OFFICE SPACE (1) (ITE LAND USE 710)				
WEEKDAY PEAK AM HIGHWAY HOUR	1.36	82	0.19	12
WEEKDAY PEAK PM HIGHWAY HOUR	0.25	15	1.24	75
SATURDAY PEAK HOUR	0.20	12	0.20	12
TOTALS				
WEEKDAY PEAK AM HIGHWAY HOUR	-----	154	-----	148
W/ CREDIT		123		118
WEEKDAY PEAK PM HIGHWAY HOUR	-----	149	-----	168
W/ CREDIT		119		134
SATURDAY PEAK HOUR	-----	123	-----	116
W/ CREDIT		98		93

* - THE ABOVE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 7TH EDITION, 2003.

(1) - INCLUDES A 20% MASS-TRANSIT CREDIT AND (2) INCLUDES A 20% INTERPLAY CREDIT.



Project:
Lighthouse Landing
Sleepy Hollow, NY

Title:
Impacted Intersections in Tarrytown