

G. Traffic and Transportation

A small portion of unused land (0.07 acres) will be acquired from Lot 40, which is currently owned by Sharon Saunders, in order to construct the new access road. The primary access to the subdivision for project residents will be through a new access road, "Road A" from Carleton Avenue to the north and secondary access will be from Washburn Road to the south. The subdivision will also contain another proposed access road, "Road B". Road B is located to the east of Road A and will provide access to 7 of the single-family dwellings.

1. Existing Conditions

To assess the traffic impacts associated with the Build Scenario, an overall study area was defined that considered the location of the project, primary access routes to and from the site, and key intersections likely to be affected by project-generated trips. The study area includes Carleton Avenue extended from Chappaqua Road to Todd Lane and from Todd Lane to Pleasantville Road. The study area also includes Washburn Road. Exhibit III.G-1, Study Area Intersections illustrates the study area. The following intersections are included in the study area:

- Carleton Avenue and Chappaqua Road
- Carleton Avenue and Route 9A
- Todd Lane and Pleasantville Road
- Site Entrance & Washburn Road
- Site Entrance & Carleton Avenue

The roadways in the vicinity of the site are generally standard widths with standard lane markings for two lane roads. All roads within the project area are two-lane, two-way roadways.

Route 100 is an Arterial Roadway (a moderate to high-capacity road which is immediately below a highway level of service) located to the west of the project area. Route 100 continues north past Chappaqua Road and south past Carleton Avenue. Route 9A intersects Route 100 near Carleton Avenue.

Pleasantville Road is a Collector Roadway (a low or moderate-capacity road which is below a highway or arterial road functional class) that runs between the Village of Pleasantville and the Village of Briarcliff Manor. Pleasantville Road is a two-lane, two-way roadway that is consistently 24 feet wide throughout the study area.

Carleton Avenue, Todd Lane, and Washburn Road are all two-way Local Urban Roads. They provide access to numerous residential properties. Fox Run Road, Doxbury Circle, Woodsford Bend and Briars Corners are also two-way Local Urban Roads each terminating at a cul-de-sac. The roadway widths vary and none of these roads has a delineated shoulder. Table III.G-1 provides a general description of the roads.

**Table III.G-1
Road Descriptions**

	Pavement Width (ft)	Length (ft) (approx.)	No. of Travel Lanes	Shoulder Width (ft)	Capacity	Condition	Ownership	Maintenance Responsibility	Sight Distance
Washburn Road	18*	1,025	2	No shoulder	2-directional	Good	Village of Briarcliff Manor	Village of Briarcliff Manor	470ft +/- W; 144ft +/- E
Carleton Avenue	24	4,760	2	No shoulder	2-directional	Good	Town of Mt. Pleasant	Town of Mt. Pleasant	438ft +/- W; 240ft +/- E
Todd Lane	18	1,960	2	No shoulder	2-directional	Good	Village of Briarcliff Manor	Village of Briarcliff Manor	-
Fox Run Road	24	265	2	No shoulder	2-directional	Excellent	Town of Mt. Pleasant	Town of Mt. Pleasant	-
Doxbury Circle	24	135	2	No shoulder	2-directional	Excellent	Town of Mt. Pleasant	Town of Mt. Pleasant	-
Woodsford Bend	24	235	2	No shoulder	2-directional	Excellent	Town of Mt. Pleasant	Town of Mt. Pleasant	-
Briars Corners	24	215	2	No shoulder	2-directional	Excellent	Town of Mt. Pleasant	Town of Mt. Pleasant	-

Source: WSP Sells

* Pavement width on Washburn Road is typically 18 feet or greater. At 2 locations, the width is less than 18 feet. See Appendix.

The traffic study analyzes operational conditions at the intersections listed above. All intersections located within the project area are unsignalized with one lane in each direction and no turning lanes.

The Chappaqua Road/Carleton Avenue intersection is a three-legged intersection. The intersection is controlled by a stop sign located on the Carleton Avenue approach. Both roadways appear to be in good condition.

The intersection of Carleton Avenue with a short access road connected to Route 9A is a three-legged intersection. The intersection is controlled by a stop sign located on the Carleton Avenue access approach to Route 9A.

Todd Lane and Carleton Avenue form a three-way intersection with skewed geometry. It is unsignalized and is not controlled by stop signs. Traffic approaching the intersection in the northbound direction from Todd Lane must stop for the higher volume free-flow movements between Carleton Avenue and the portion of Todd Lane that leads to Washburn Road. Washburn Road provides access to a few residential properties. There is faded striping on Todd Lane, and no evidence of existing or previously existing stop bars on any of the approaches.

To assess current traffic conditions, an analysis was conducted at the intersections, which would most likely be affected by new vehicle trips traveling to and from the project site. The following sections describe current conditions including the methodologies employed for the analyses.

Traffic Volumes

Existing traffic volumes were generated based on manual traffic counts conducted in May 2007 at the study area intersections and compared to data from automated traffic recorders (ATRs) that were placed at four key locations (two locations along Carleton Avenue, one location on Todd Lane and one location on Washburn Road) near the proposed development. Manual turning movement counts were conducted at three of the four study area intersections during the weekday morning and afternoon peak time periods. An inventory of the analyzed intersections was performed to determine pavement markings and lane dimensions to be used in the calculation of street capacities. Exhibit III.G-1 shows the locations where original traffic counts were performed.

Traffic counts were obtained from both New York State and Westchester County to confirm the validity of the 2007 data. Both sources revealed a decrease in traffic from 2008 to 2009 along Pleasantville Road which is representative of the project intersections. This information is indicative of the current economic climate and confirms that the project's counts are valid and conservative.

Exhibits III.G-2 and III.G-3 show the existing traffic volumes for the weekday AM and PM peak hours. Based on the field counts and historical data, the weekday AM and PM peak hours of traffic in the study area occur between 7:30 AM and 8:30 AM, and 5:00 PM and 6:00 PM respectively. The existing peak hours of travel correspond with the

times when the greatest amount of trips will be generated by the project and have therefore been selected as the peak analysis periods for this project.

Operating Conditions

Table III.G-1 presents the operating conditions for the study area intersections during the existing weekday AM and PM peak hours. The capacity analysis indicates that all four of the intersections operate at an overall LOS A for both peak hours. Although, the intersection of Todd Lane and Pleasantville Road experiences moderate delays, they are still acceptable. The moderate delays are caused by heavy thru movements along Pleasantville Road. The SB approach of Todd Lane operates at LOS C. Therefore, this indicates that all of the existing intersections in the study area currently operate with acceptable delays and levels of service. Exhibits III.G-4 and III.G-5 show the 2011 No-Build AM and PM Traffic Volumes.

**Table III.G-2
Level of Service Analysis - Existing (2007)**

Intersection	Approach	Lane Group		2007 Existing	
				AM	PM
Todd Lane @ Pleasantville Road	Todd Lane SB	Approach	Delay LOS	25.0 C	23.6 C
	Pleasantville Rd. EB	Approach	Delay LOS	0.2 A	1.0 A
	Pleasantville Rd. WB	Approach	Delay LOS	0.0 A	0.0 A
	Intersection		Delay LOS	1.0 A	1.1 A
Carleton Ave @ Route 9A	Carleton Ave. WB	Approach	Delay LOS	14.1 B	26.0 D
	Route 9A NB	Approach	Delay LOS	0.0 A	0.0 A
	Intersection		Delay LOS	0.1 A	0.1 A
Carleton Ave @ Chappaqua Road	Carleton Ave. EB	Approach	Delay LOS	9.2 A	9.2 A
	Chappaqua Rd. NB	Approach	Delay LOS	0.0 A	0.2 A
	Chappaqua Rd. SB	Approach	Delay LOS	0.0 A	0.0 A
	Intersection		Delay LOS	1.7 A	2.4 A

Source: WSP Sells

Accident Analysis

Accident data for the study area intersections and surrounding roadways were requested and obtained from NYSDOT through a Freedom of Information Request. In the three-year period between 1/1/2005- 12/31/2007 there were a total of three accidents. All three of these accidents occurred at the intersection of Todd Lane with Pleasantville Road. No particular trend or cluster was observed for these accidents. The overall accident rate at this intersection is 0.15 Accidents/Million Entering Vehicles (ACC/MEV) compared to the statewide average for similar intersections of 0.16 ACC/MEV. Therefore, the accident records show that the study area intersections and roadways currently operate at safe and lower than statewide average for similar intersections and will not have any adverse affects on vehicular safety.

Letters were sent to the Town of Mount Pleasant and Village of Briarcliff Manor Police Departments requesting accident data for the study area. The accident data from

Use of Area Roads

A pedestrian count was conducted on Wednesday, October 15, 2008 and revealed that there is minimal pedestrian traffic throughout the study area. Pedestrian counts were conducted during times that would correspond to the start and end of the Todd Elementary School day at the intersection of Washburn Road and Todd Lane and at the intersection of Carleton Avenue and Todd Lane. During the morning time frame of 7:30 to 9:30, a total of 13 pedestrians were observed. In the afternoon between the hours of 2:00 and 4:00 a total of 9 pedestrians were counted at the intersection of Washburn Road and Todd Lane and 8 at the intersection of Carleton Avenue and Todd Lane.

The manual traffic counts show a breakdown of less than 2% of the total traffic within the study area are classified as trucks, this percentage accounts for service and delivery vehicles. School buses currently travel along Washburn Road to access the Todd Elementary School.

2. Anticipated Impacts

The analysis of the project generated transportation impacts begins with and builds upon the No Build condition described in the preceding section. Project-generated trips are added to the No Build volumes to develop a Build traffic network for 2011. An analysis is conducted to determine the service levels and delays at the study area intersections. The Build conditions are then compared to the No-Build analysis to determine if there are any significant operational impacts.

As part of the Proposed Action, a new access road will be constructed between Carleton Avenue and Washburn Road. The Mount Pleasant Town Code requires a minimum sight distance of 240 feet along a local street in R-40 zoning. The sight distance looking west along Washburn Road is 470 ft +/-, which exceeds the minimum requirement for the proposed conditions. The sight distance looking east towards the dead end however is 144 ft +/- without any sight distance improvements. The design will include cutting back the slope within the right-of-way along the east side of Washburn to obtain the minimum

sight distance of 240 feet. The sight distance looking west along Carleton Avenue is 438 ft +/-, which exceeds the minimum requirement for the proposed conditions. The measured sight distance looking east is 240 ft +/-, which meets the Town requirements.

Traffic Volumes

Estimates of the expected Taconic Tract Development site generated traffic volumes were computed utilizing information published by the Institute of Transportation Engineers (ITE) as contained in their report entitled Trip Generation, 7th Edition, 2003. The projected traffic volumes were based on land use trip generation rates for 16 single-family dwelling units. These volumes were added to the intersections utilizing the arrival and departure distributions to obtain the Build condition traffic volumes.

Table III.G-2 provides a summary of the average amount of trips generated by the proposed development during the weekday AM & PM peak hours.

**Table III.G-3
Trip Generation Rates**

Time Period	Trip Generated	
	In	Out
Weekday AM	6	17
Weekday PM	14	8

Source: ITE, 7th Edition

The traffic generated by the project has been added to the roadway network in accordance with existing travel patterns. The trip distribution for the proposed projected traffic volumes was based on a worst-case scenario in which most vehicles are traveling to and from Pleasantville Road. Most of the traffic from outside the study area is expected to utilize the Taconic State Parkway, Route 9A and Route 100 and travel on Chappaqua Road. Visitors more familiar with the area may also access these major routes through Pleasantville Road. Local based trips would also utilize Carleton Avenue, Todd Lane, and Washburn Road to travel within the Town of Mount Pleasant. The project generated trip percentages are shown on Exhibit III.G-6. The project trip assignments are shown on Exhibit III.G-7 and III.G-8. The project-generated traffic has been added to the No-build traffic to develop the Build traffic volumes shown in Exhibits III.G-9 and III.G-10 for the weekday AM and PM time periods, respectively.

Existing counts and observations show that there is minimal pedestrian traffic throughout the study area and that the increase in vehicular traffic generated by the project will not significantly affect pedestrian operations and safety.

During the majority of the development of the project, construction related traffic would access the site from Carleton Avenue. Daily construction activities will not affect local traffic in the project area. The majority of the contractors would be expected to arrive at

the site between 7:00 and 8:00 AM and will generally depart between 6:00 and 6:30 PM. Deliveries will generally occur between 8:00 AM and 3:00 PM at various times throughout the time period. Since the offsite weekday peak traffic hours are between 7:30 to 8:30 AM and between 5:00 to 6:00 PM, the majority of contractors will be arriving during the offsite road network’s off-peak traffic time and therefore will not have an impact on operating conditions. The majority of the contractors departing from the site will be during off-peak hours. The same can be said of deliveries of materials to the construction site, which would generally happen between 8:00 AM and 3:00 PM, during and after the morning peak and prior to the afternoon peak hours.

During the clearing and heavy construction phases of the proposed project, surplus material will be hauled from the site and construction equipment will be delivered to the site using adjacent roads. Construction workers will drive to and from the site using passenger vehicles and small trucks. After the heavy construction phase is complete, small trade contractors will make up the primary traffic to and from the site.

Operating Conditions

The study area intersections were again analyzed using the HCM procedures. As shown in Table III.G-3, which compares traffic operating conditions under the no-build and build conditions, the project-generated trips have only a minimal effect on traffic conditions. Traffic movements on the southbound approach at the intersection of Todd Lane and Pleasantville Road will continue to operate at LOS D during the peak hour periods and the traffic generated by the project will have only nominal impacts on delays.

Westchester County’s Capital Budget currently includes the reconstruction of the Pleasantville Road Bridge over the Pocantico River, along with the resurfacing and improvements to infrastructure of Pleasantville Road including the intersection at Todd Lane. Aside from these future County projects, additional mitigation measures are beyond the scope of this project. Regional traffic improvements would be necessary to improve the intersection at Todd Lane and Pleasantville Road, such as additional turn lanes, widening the roadway or providing a signalized intersection.

Table III.G-4

Level of Service Analysis - Existing (2007) and No-Build Conditions (2011)

Intersection	Approach	Lane Group		2011 No-Build		2011 Build	
				AM	PM	AM	PM
Todd Lane @ Pleasantville Road	Todd Lane SB	Approach	Delay LOS	29.2 D	27.4 D	32.6 D	30.7 D
	Pleasantville Rd. EB	Approach	Delay LOS	0.2 A	1.1 A	0.3 A	1.2 A
	Pleasantville Rd. WB	Approach	Delay LOS	0.0 A	0.0 A	0.0 A	0.0 A

	Intersection		Delay LOS	1.2 A	1.2 A	1.7 A	1.4 A
Carleton Ave @ Route 9A	Carleton Ave. WB	Approach	Delay LOS	14.9 B	29.7 D	13.0 B	30.0 D
	Route 9A NB	Approach	Delay LOS	0.0 A	0.0 A	0.0 A	0.0 A
	Intersection		Delay LOS	0.1 A	0.1 A	0.1 A	0.1 A
Carleton Ave @ Chappaqua Road	Carleton Ave. EB	Approach	Delay LOS	9.2 A	9.3 A	9.2 A	9.3 A
	Chappaqua Rd. NB	Approach	Delay LOS	0.0 A	0.2 A	0.0 A	0.3 A
	Chappaqua Rd. SB	Approach	Delay LOS	0.0 A	0.0 A	0.0 A	0.0 A
	Intersection		Delay LOS	1.7 A	2.4 A	1.8 A	2.5 A
Washburn Rd @ Development Entrance	Washburn Rd EB	Approach	Delay LOS	--	--	7.2 A	7.2 A
	Washburn Rd. WB	Approach	Delay LOS	--	--	0.0 A	0.0 A
	Development Entrance	Approach	Delay LOS	--	--	8.4 A	8.3 A
	Intersection		Delay LOS	--	--	5.9 A	6.1 A
Carleton Ave @ Development Entrance	Carleton Ave. NB	Approach	Delay LOS	--	--	0.0 A	0.0 A
	Carleton Ave. SB	Approach	Delay LOS	--	--	0.2 A	1.1 A
	Development Entrance	Approach	Delay LOS	--	--	8.5 A	8.6 A
	Intersection		Delay LOS	--	--	0.8 A	0.9 A

Source: WSP Sells

3. Proposed Mitigation

With the proposed project in place there would be slight increases in traffic volumes. While the increased volume will not, in the Applicant's opinion, significantly impact traffic conditions at the study area intersections, certain movements at the Todd Lane and

Pleasantville Road intersection will continue to operate at poor levels of service as are anticipated in the No-Build scenario.

No-Build Scenario

Traffic conditions in the future without the proposed action were assessed to establish a baseline from which to evaluate the impacts of the proposed project. This baseline is also known as the “No Build” condition. The analysis focuses on 2011, a conservative estimate of the year in which the proposed project is expected to have a complete build out. Within the immediate vicinity of the proposed site there are no known major developments expected to occur.

The following sections describe the forecasted conditions in 2011 without the proposed project.

Traffic Volumes

No-Build traffic volumes were generated using the existing traffic volumes and projecting them into the future year, 2011, using a conservative 2% growth factor. Based on the 1990 and 2000 U.S. Census Data it was determined that the Town of Mount Pleasant has experienced a 10.7% growth rate over the last 10 years.

Exhibits III.G-4 and III.G-5 show the no-build (2011) traffic volumes for the weekday AM and PM peak hours.

Operating Conditions

Table III.G-4 compares the operating conditions under the No-Build scenario with existing conditions. Even with the growth factor most of the approaches continue to operate at LOS A. Only the southbound approach at the intersection of Todd Lane and Pleasantville Road experiences LOS D operations during the AM and PM peak hours.

**Table III.G-5
Level of Service Analysis - Existing (2007) and No-Build Conditions (2011)**

Intersection	Approach	Lane Group		2007 Existing		2011 No-Build	
				AM	PM	AM	PM
Todd Lane @ Pleasantville Road	Todd Lane SB	Approach	Delay LOS	25.0 C	23.6 C	29.2 D	27.4 D
	Pleasantville Rd. EB	Approach	Delay LOS	0.2 A	1.0 A	0.2 A	1.1 A
	Pleasantville Rd. WB	Approach	Delay LOS	0.0 A	0.0 A	0.0 A	0.0 A
	Intersection		Delay LOS	1.0 A	1.1 A	1.2 A	1.2 A

Carleton Ave @ Route 9A	Carleton Ave. WB	Approach	Delay LOS	14.1 B	26.0 D	14.9 B	29.7 D
	Route 9A NB	Approach	Delay LOS	0.0 A	0.0 A	0.0 A	0.0 A
	Intersection		Delay LOS	0.1 A	0.1 A	0.1 A	0.1 A
Carleton Ave @ Chappaqua Road	Carleton Ave. EB	Approach	Delay LOS	9.2 A	9.2 A	9.2 A	9.3 A
	Chappaqua Rd. NB	Approach	Delay LOS	0.0 A	0.2 A	0.0 A	0.2 A
	Chappaqua Rd. SB	Approach	Delay LOS	0.0 A	0.0 A	0.0 A	0.0 A
	Intersection		Delay LOS	1.7 A	2.4 A	1.7 A	2.4 A

Source: WSP Sells

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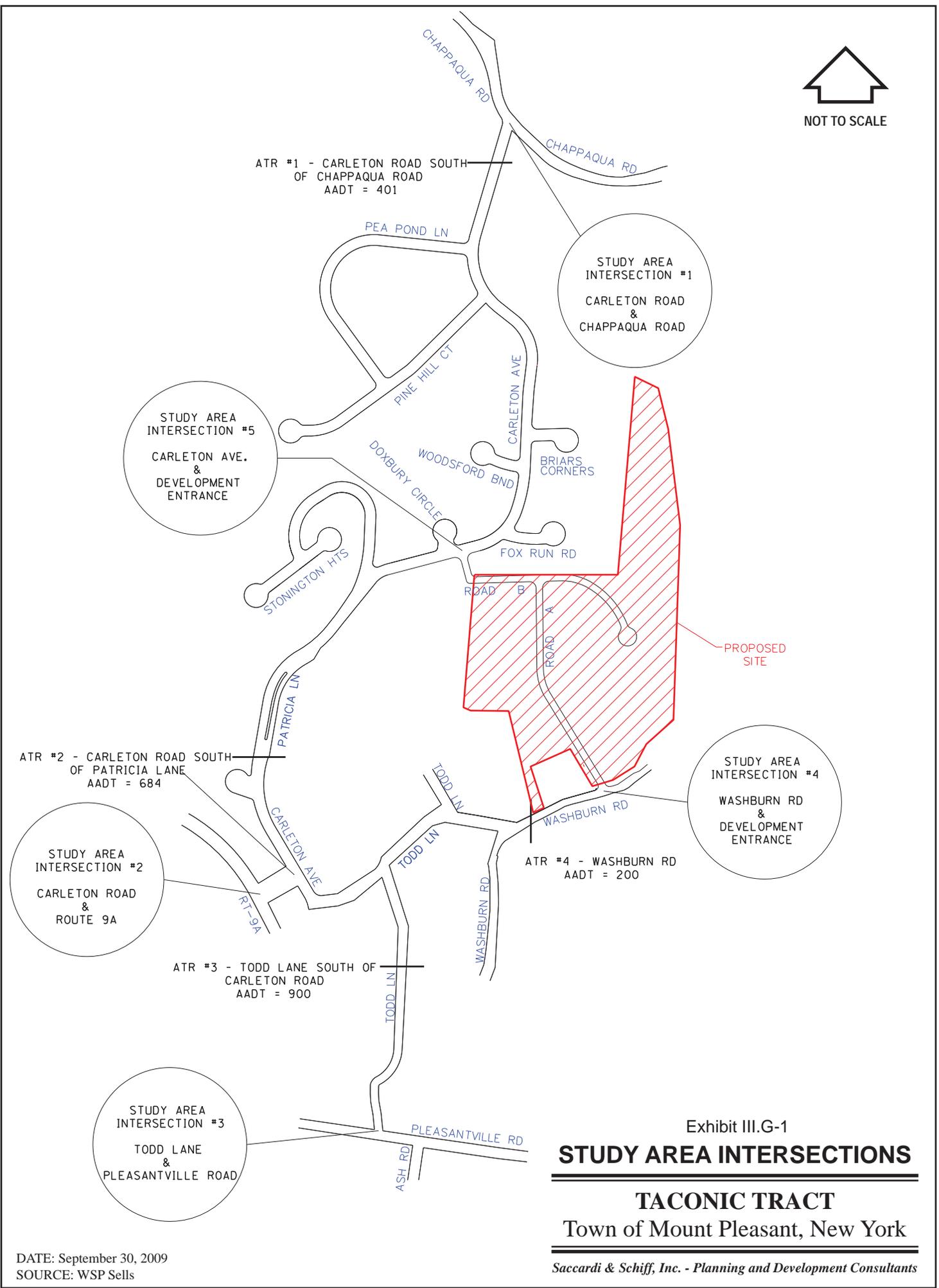


Exhibit III.G-1

STUDY AREA INTERSECTIONS

TACONIC TRACT

Town of Mount Pleasant, New York

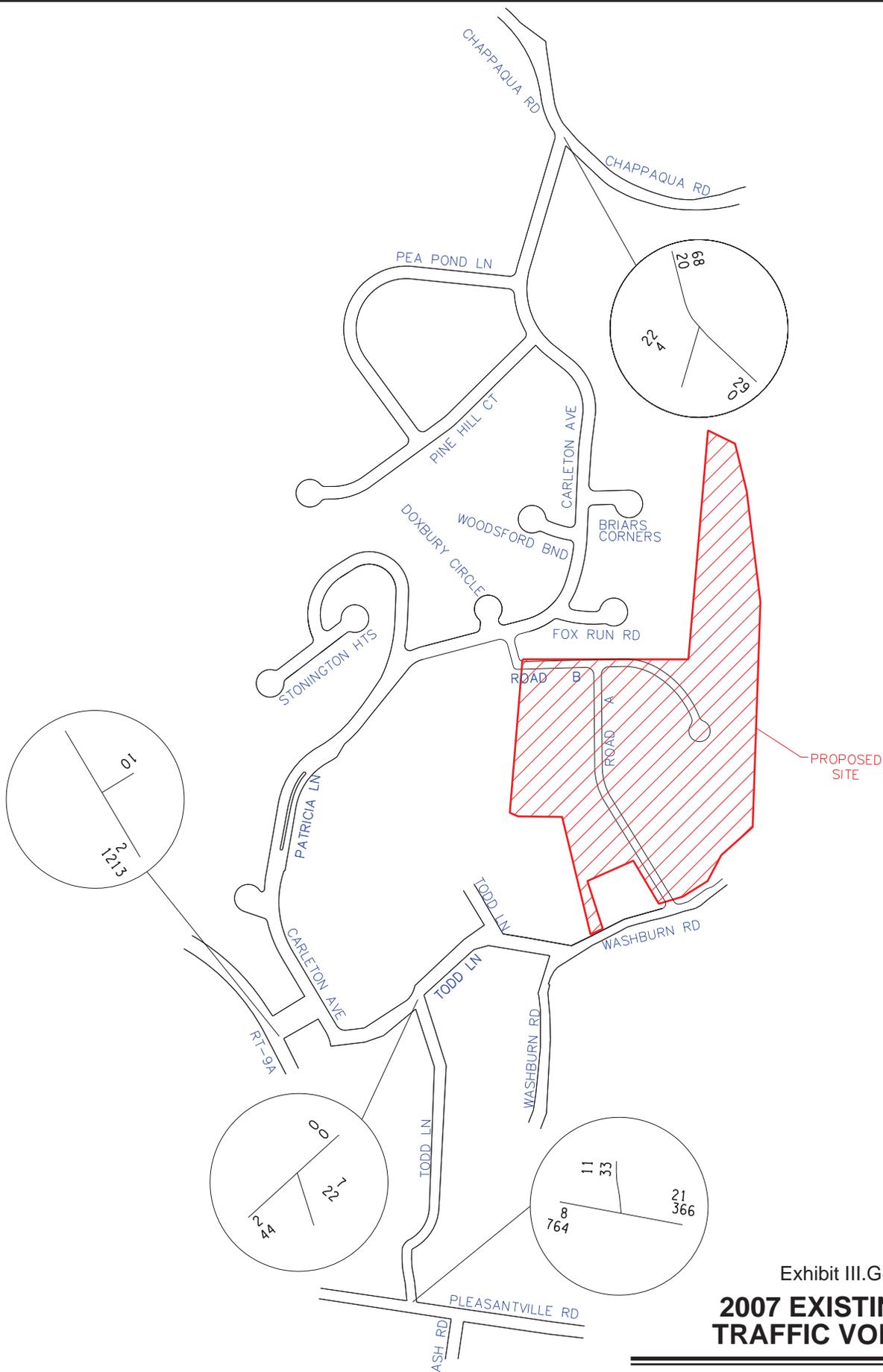


Exhibit III.G-2
**2007 EXISTING AM
TRAFFIC VOLUMES**

TACONIC TRACT
Town of Mount Pleasant, New York

Saccardi & Schiff, Inc. - Planning and Development Consultants

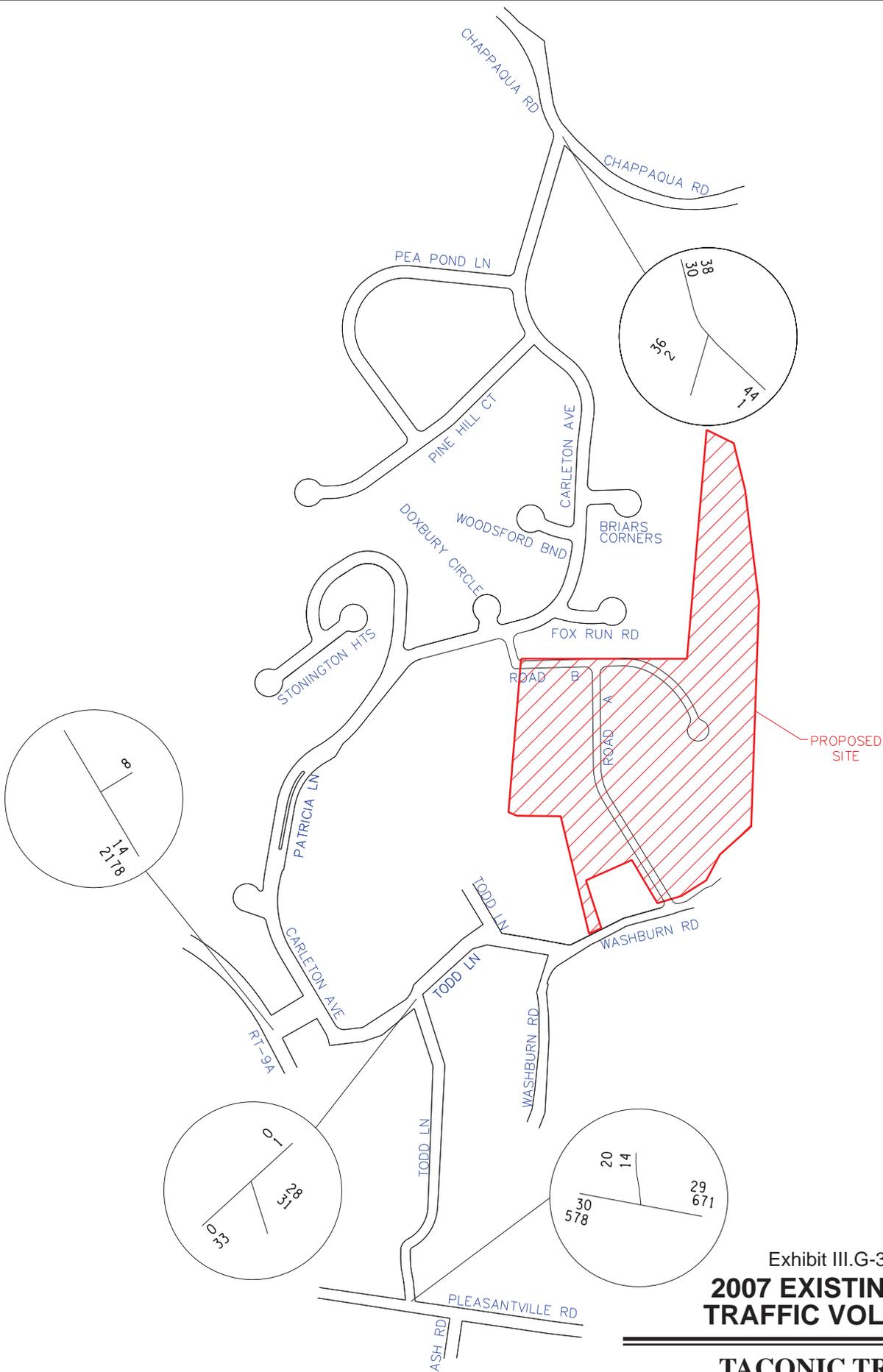
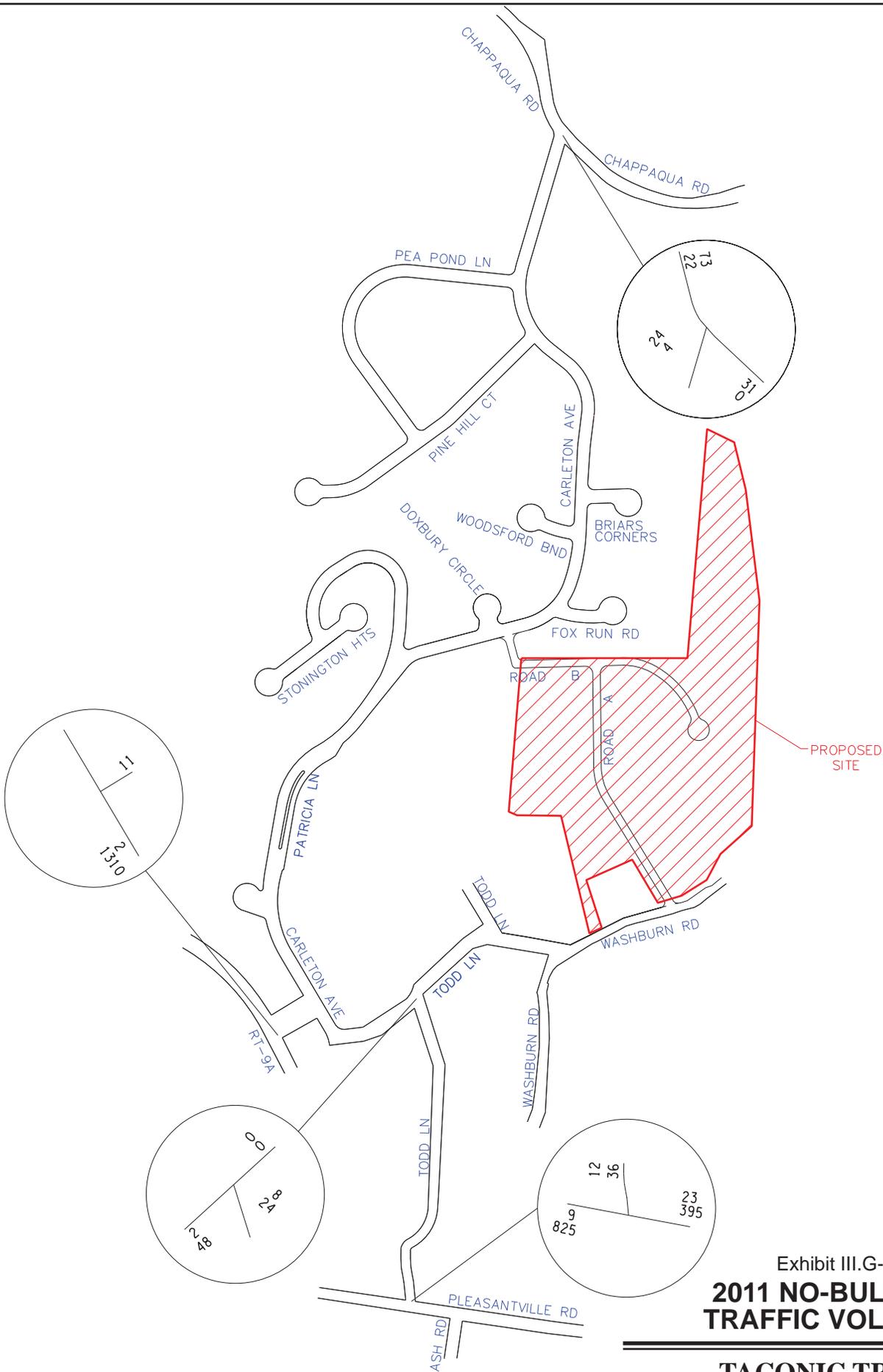


Exhibit III.G-3
**2007 EXISTING PM
TRAFFIC VOLUMES**

TACONIC TRACT
Town of Mount Pleasant, New York



PROPOSED SITE

Exhibit III.G-4
**2011 NO-BUILD AM
TRAFFIC VOLUMES**

TACONIC TRACT
Town of Mount Pleasant, New York

DATE: September 30, 2009
SOURCE: WSP Sells

Saccardi & Schiff, Inc. - Planning and Development Consultants

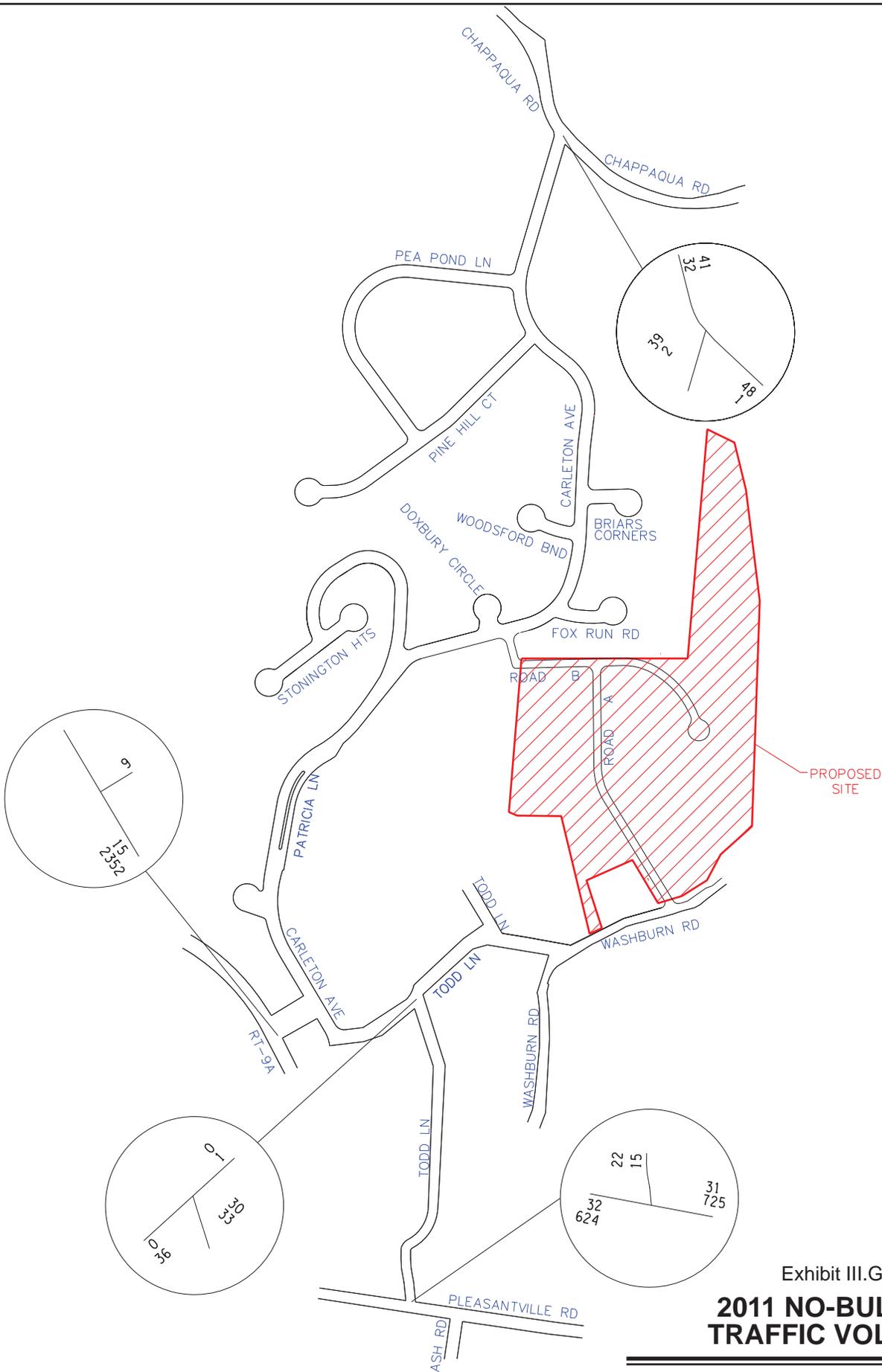


Exhibit III.G-5

2011 NO-BULD PM TRAFFIC VOLUMES

TACONIC TRACT
Town of Mount Pleasant, New York

Saccardi & Schiff, Inc. - Planning and Development Consultants



IN
(OUT)

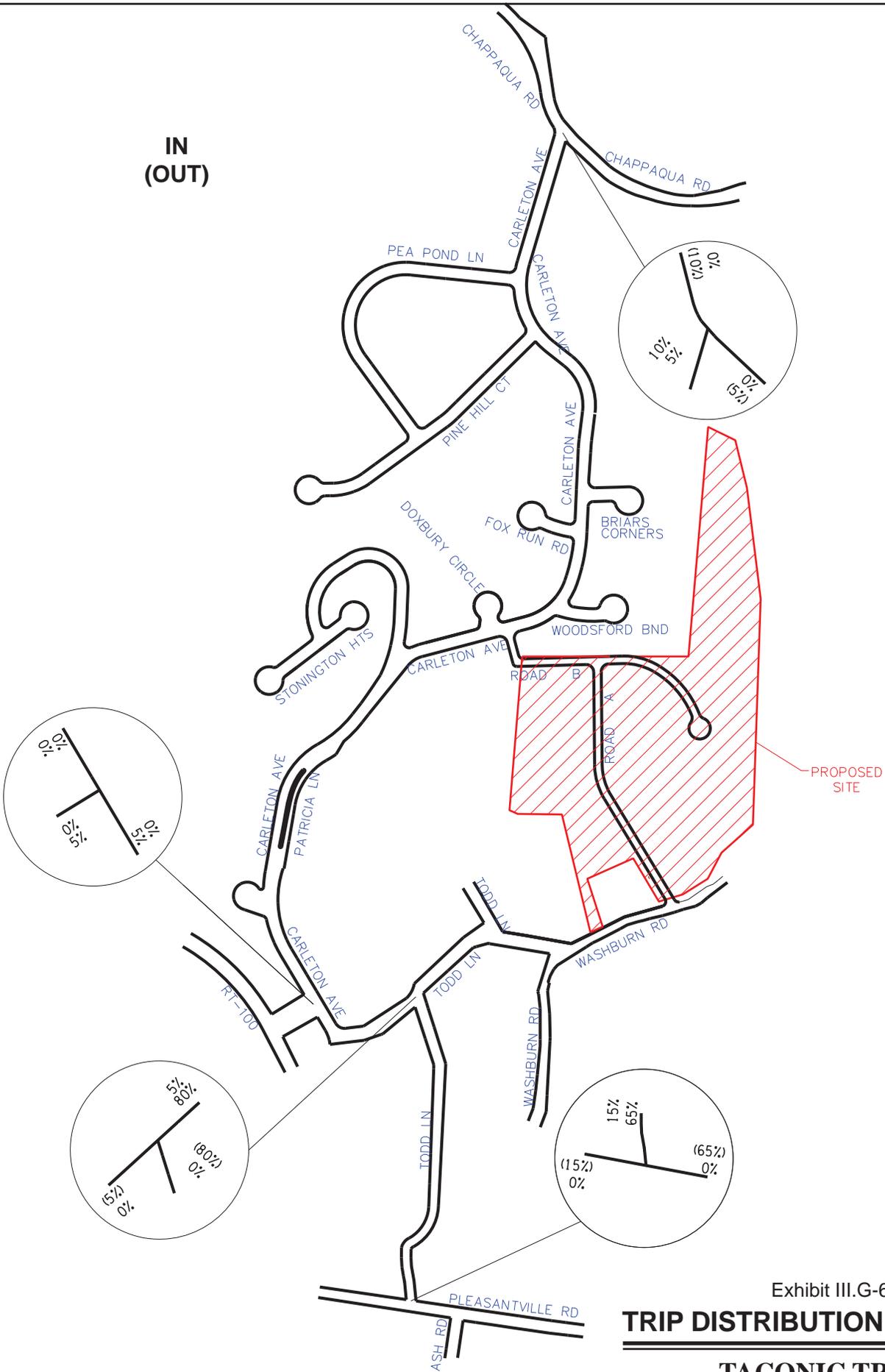


Exhibit III.G-6

TRIP DISTRIBUTION - WEEKDAY

TACONIC TRACT

Town of Mount Pleasant, New York

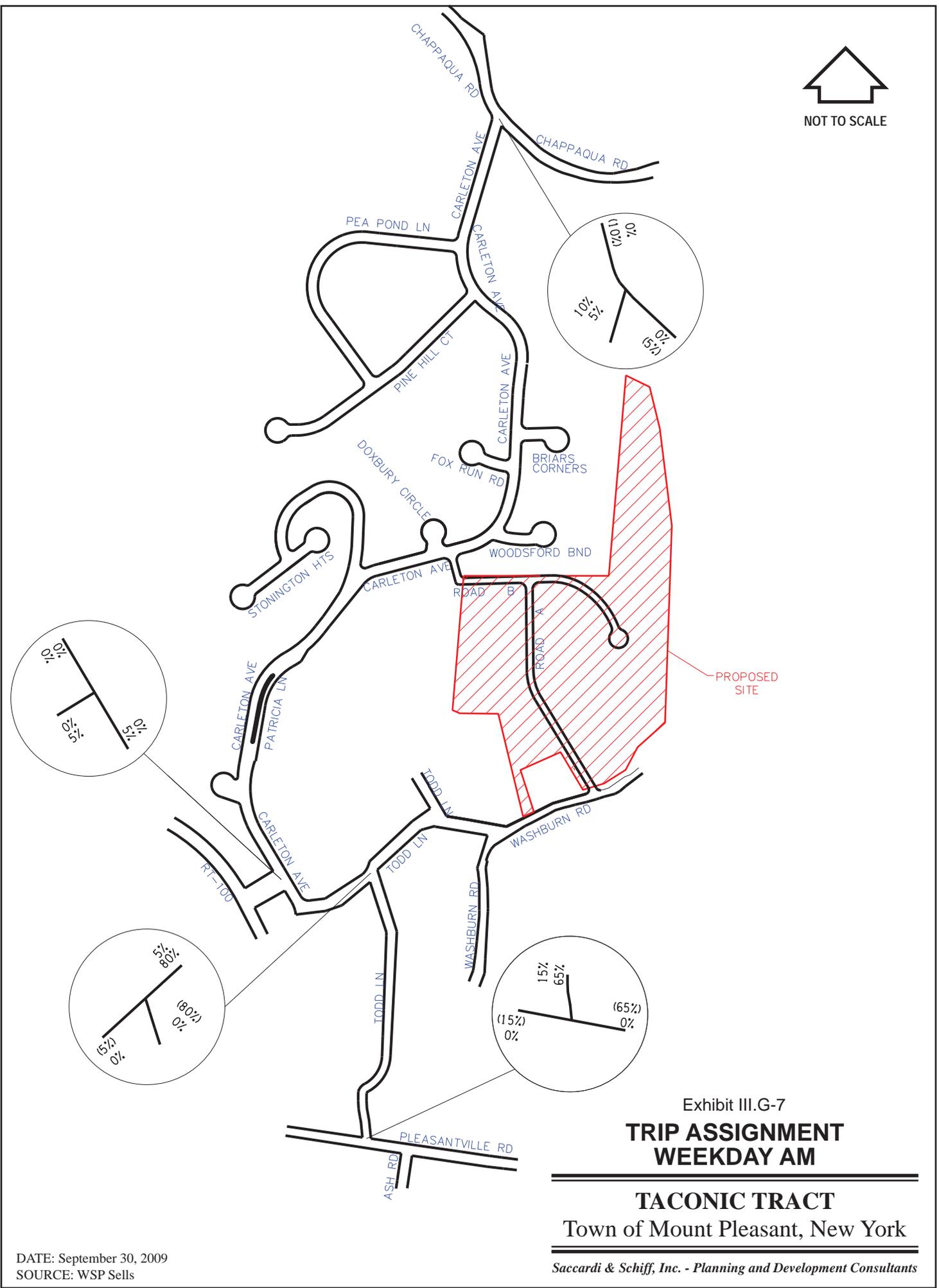


Exhibit III.G-7

**TRIP ASSIGNMENT
WEEKDAY AM**

TACONIC TRACT
Town of Mount Pleasant, New York

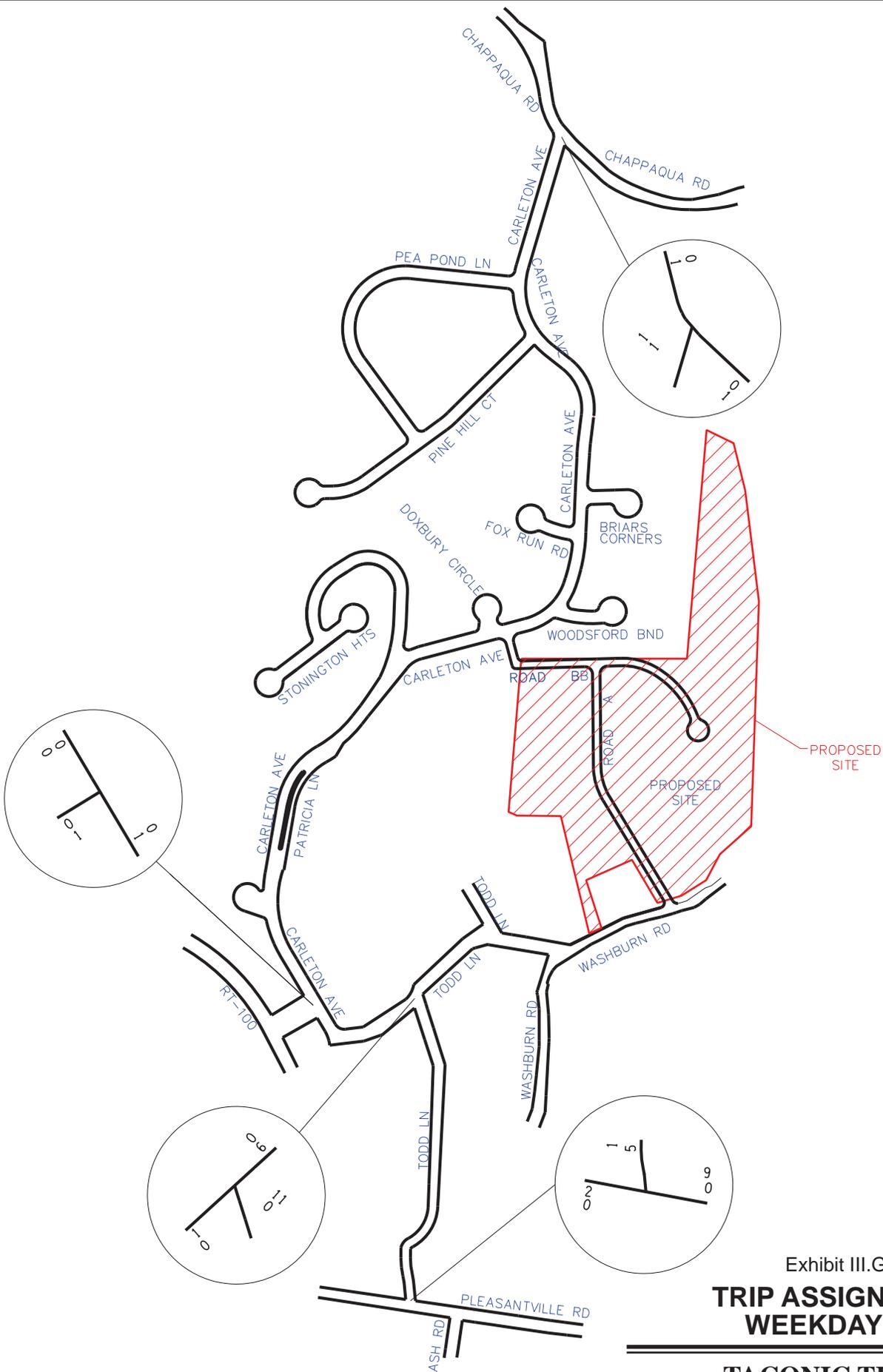


Exhibit III.G-8

**TRIP ASSIGNMENT
WEEKDAY PM**

TACONIC TRACT
Town of Mount Pleasant, New York

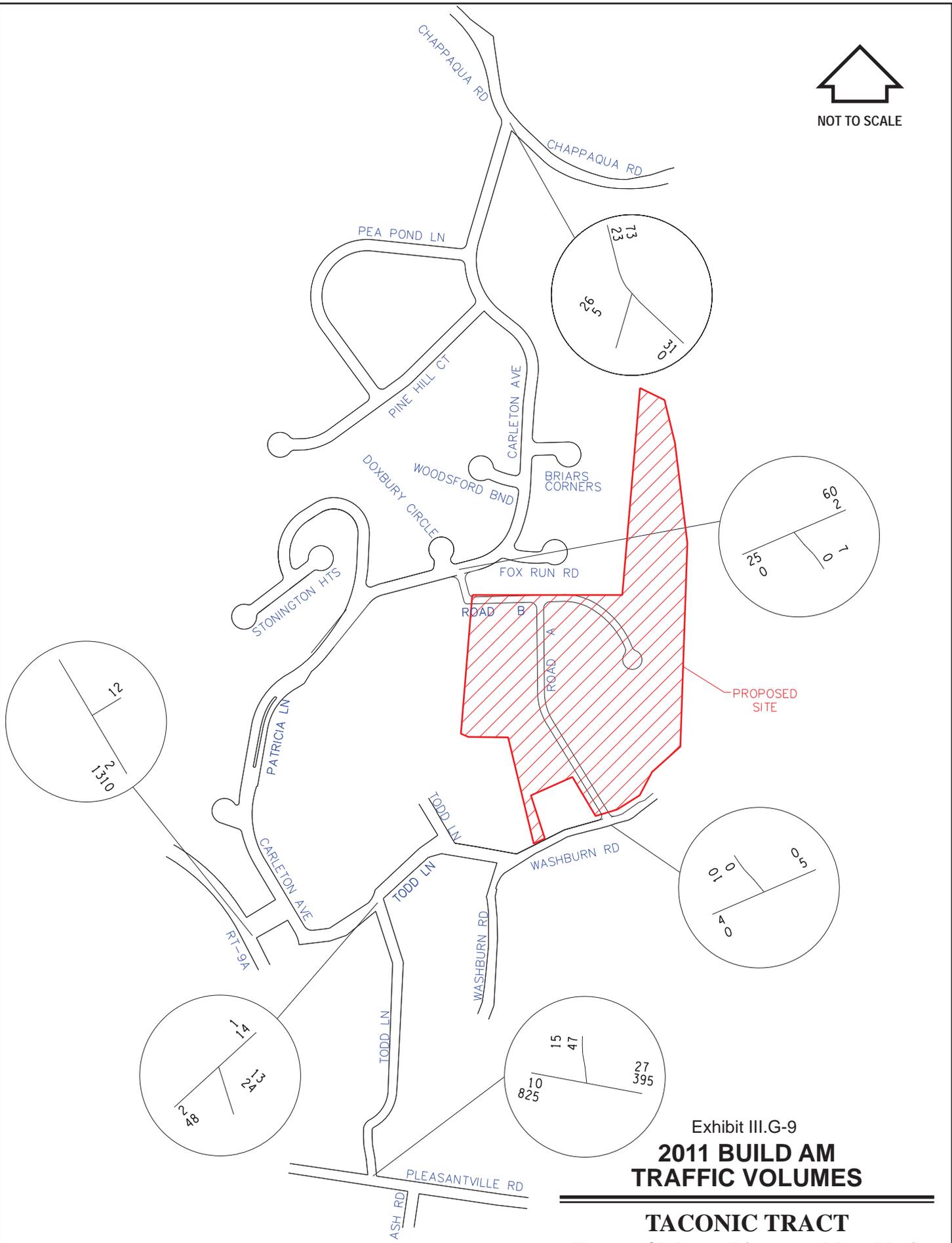


Exhibit III.G-9
**2011 BUILD AM
 TRAFFIC VOLUMES**

TACONIC TRACT
 Town of Mount Pleasant, New York

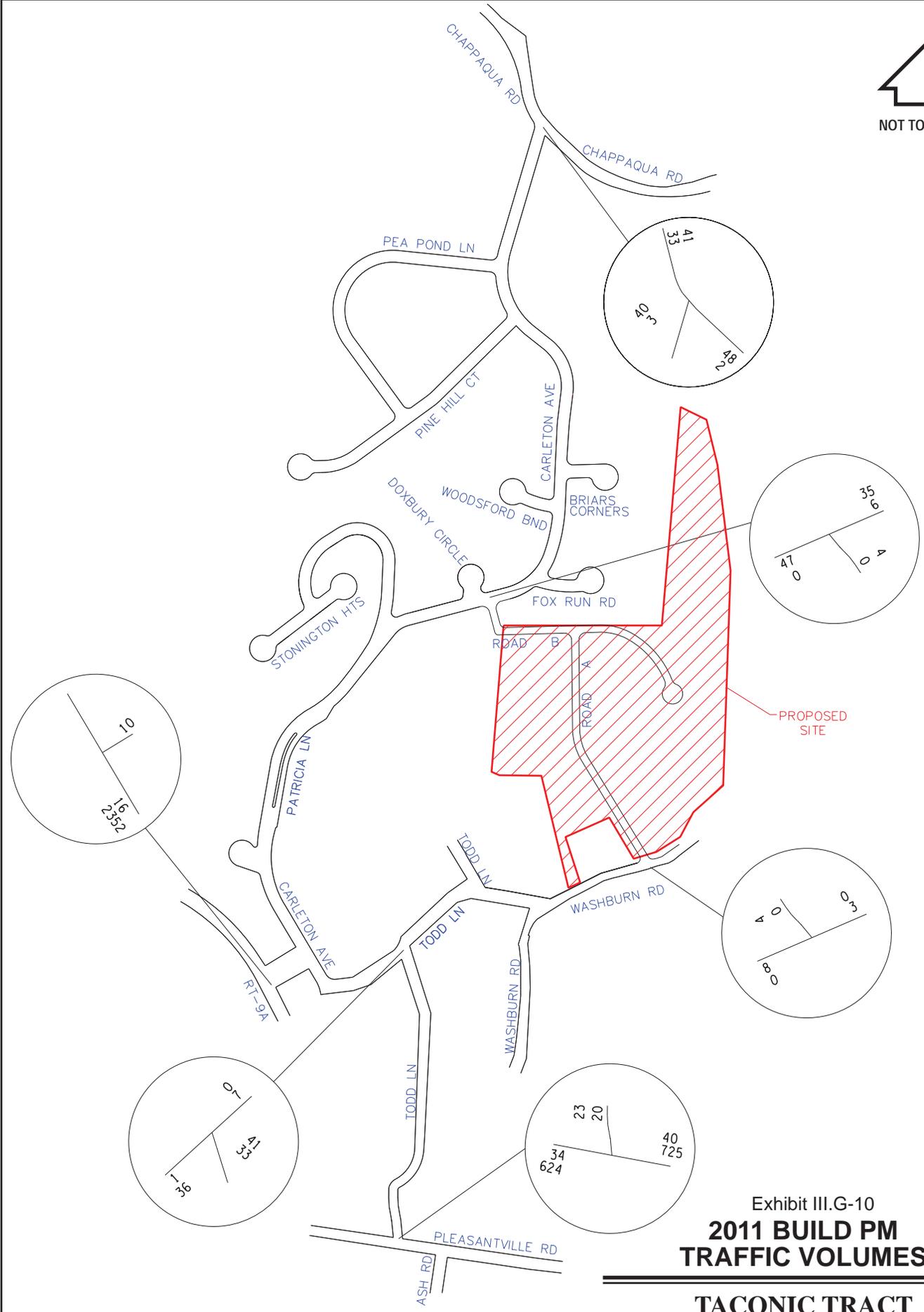


Exhibit III.G-10
**2011 BUILD PM
TRAFFIC VOLUMES**

TACONIC TRACT
Town of Mount Pleasant, New York