3.6 TRANSPORTATION

3.6.1 Introduction

The project site is located on the east side of the Metro-North Railroad right-of-way (ROW), east of the Hudson River, in the southwestern portion of the Village of Dobbs Ferry. The project site is located at the end of Fairlawn Avenue and west of Constance Avenue an existing single family neighborhood known as Fairmead. The property is approximately 250 feet west of Broadway (Route NYS 9).

The proposed project, known as Waters Edge, is a subdivision of a 4.4 acres property in eleven (11) lots for single family detached residential homes. Ten of the eleven lots will front on a new looped road, which will connect to Fairlawn Avenue. Lot 11 located in the northeastern portion of the site, fronts along the northern section of Atilda Avenue, which runs perpendicular to the northern portion of Fairlawn Avenue. Refer to Figure 3.6-1. Section 3.6 assesses the effect of potential traffic generated by the Waters Edge development in combination with other identified development projects in the Village of Dobbs Ferry.

This traffic analysis evaluates existing and future traffic conditions at two (2) existing intersections in proximity to the proposed project. Figure 3.6-1 shows the location of the two intersections studied: Refer to Appendix F for the traffic data collection.

- US Route 9 (Broadway) and Fairlawn Avenue (north access)
- US Route 9 (Broadway) and Fairlawn Avenue (south access)

3.6.2 Existing Traffic Conditions

Roadway Network

As shown in Figure 3.6-1, the site is located west of US Route 9, also known as Broadway. Road access to the individual homes will be from existing roads and a new road that connects to Fairlawn Avenue. Fairlawn Avenue is a two lane loop road which provides two access points to US Route 9, Broadway. The northern portion of Fairlawn Avenue is closest to the site.

The posted Village speed limit on Village roads is 30 miles per hour. None of the local roads in the subject area described below have posted speed limits, hence the default speed limit is the Village speed limit of 30 miles per hour.

Figure 3.6-2, illustrates the parking and traffic controls of the existing roads in the vicinity of the project site. These signs includes a nonstandard warning sign, "WATCH OUT FOR CHILDREN" at the west end of northern Fairlawn Avenue. Not shown are street signs indicating the street names at intersections.

US Route 9 is a principal urban arterial with two lanes in each direction and provides regional north-south access in the project vicinity. The annual average daily traffic volumes (AADT) for Route 9 in the vicinity of the project site is 12,040 vehicles per day, (Source: 2005 NYS DOT Traffic Volume Report). The posted speed limit on US Route 9 is 30 miles per hour. US Route 9 is maintained by the New York State Department of Transportation (NYS DOT).

Fairlawn Avenue is a two way loop road with a single travel lane in each direction. Fairlawn Avenue connects with Broadway (US Route 9) at two locations, both of which are stop sign controlled. Fairlawn Avenue provides access to the Fairmead neighborhood including the project site. Fairlawn Avenue is maintained by the Village of Dobbs Ferry. A portion of Fairlawn Avenue is one-way and two (2) sections of Fairlawn Avenue are unimproved, as indicated in Figure 3.6-2.

Atilda Avenue is a two way paved road with a single travel lane in each direction, which connects the two legs of Fairlawn Avenue. Atilda Avenue provides residential access to the adjoining properties. Atilda Avenue is maintained by the Village of Dobbs Ferry.

Constance Avenue is a two way paved road with a single travel lane in each direction which connects the two legs of Fairlawn Avenue, west of Atilda Avenue. Constance Avenue provides residential access to the adjoining properties. Constance Avenue is maintained by the Village of Dobbs Ferry.

Roadway Conditions

A existing conditions survey was conducted by Tim Miller Associates (TMA) of the roads likely to be used by traffic generated by the Proposed Action. Figure 3.6-1 illustrates the locations of the roadways that were surveyed. Table 3.6-1 shows the lane width, shoulder width, surface condition and speed limit of the roads within the project vicinity.

Pavement conditions of the roads surveyed were rated on a scale from one to three with a "1" being poor condition (1 to 5 on the New York State rating system), a "2" being a fair to good rating (6 to 8 on the New York State rating system) and a "3" being excellent (9 to 10 on the New York State rating system). For example, a rating of "1" indicates that work would be needed to improve the existing road whereas a rating of "3" would be typical of newly paved road.

Table 3.6-1
Local Roadway Conditions

Road	Speed Limit	Pavement Width	Number of Travel lanes	Pavement Condition
US Route 9 Broadway	30 mph	40 feet	4/2 *	2
Fairlawn Avenue (North)	30 mph	28-14 feet	2	2 **
Fairlawn Avenue (South) to Atilda Ave.	30 mph	24 feet	2	2
Fairlawn Avenue (South) past Atilda Ave.	30 mph	11 feet	1	unpaved
Atilda Avenue	30 mph	24 feet	2	3
Constance Avenue	30 mph	15 feet	2	1
* Parking along US Route 9 North of northern Fairlawn Avenue merges traffic into a single lane in each direction. Parking is permitted in areas between the Fairlawn Avenue/US Route 9 intersections.				
**Area near Constance Avenue is narrowest with unpatched potholes and alligator cracking.				
mph = miles per hour.				

Existing Sight Distance

Broadway (US Route 9) in the vicinity of the project site is relatively flat with minimal curving. The stopping sight distance for vehicles traveling north and south along Broadway (US Route 9) is more than 1000 feet.

Intersections with restrictive conditions were evaluated as to the available sight distance. The intersections evaluated and their available site distance is shown in Table 3.6-2. The sight distance listed in Table 3.6-2 for the Fairlawn Avenue and Broadway intersection was measured from the driver's eye at the Stop Bar. The front of the vehicle extends to the edge of pavement for this measurement. This is the only practical location for a vehicle to stop due to the approximate 7 percent grade at this approach, and the existing hedge located to the north. This sight distance also assumes that no vehicles are parked to the north or south 250 feet along Broadway. Sight distance measured with the front bumper at the Stop Bar is an inadequate forcing vehicles to advance to the edge of the roadway to extend their line of sight.
The intersections of Fairlawn Avenue and Atilda Avenue and Fairlawn Avenue at Constance Avenue also have restricted sight distances. The sight distances at these intersections are limited due to the offset geometry of the intersections in combination with the significant vegetation, including mature hedges and an 80" Sycamore tree on Atilda Avenue.

Table 3.6-2
Approximate Sight Distance

Location	Sight Distance to the Left	Sight Distance to the Right
Fairlawn Avenue EB at US Rte 9 Broadway	450 feet	600 feet
Fairlawn Avenue EB at Atilda Avenue	10 feet	5 feet
Fairlawn Avenue WB at Atilda Avenue	25 feet	150 feet
Atilda Avenue SB at Fairlawn Avenue	250 feet	10 feet
Atilda Avenue NB at Fairlawn Avenue	25 feet	250 feet
Fairlawn Avenue EB at Constance Avenue	Not Applicable	25 feet
Fairlawn Avenue WB at Constance Avenue	250 feet	Not Applicable
Constance Avenue NB at Fairlawn Avenue	25 feet	200 feet

Stopping sight distance is defined as the distance required for a vehicle to stop on wet pavement in order to avoid a collision with a vehicle entering the traffic stream. Intersection sight distance is defined as the sight distance necessary for a vehicle to safely enter the traffic stream with only minor speed adjustments required by vehicles in the traffic stream. Intersection sight distance provides an additional margin of safety above stopping sight distance. The posted speed limit on roads in this area is 30 miles per hour. Except for Broadway (US Route 9), actual vehicle speeds on the local roads are likely less than 30 miles per hour given the length of the roads. Table 3.6-3 shows the Intersection Sight Distances recommended by the

American Association of State Highway and Transportation Officials (AASHTO) as well as the sight distance measurements for each approach at the study intersections.

Table 3.6-3
Sight Distance

Speed (in miles/hour)	Stopping Sight Distance	Intersection Sight Distance
30	200 Feet	335 Feet
35	390 Feet	390 Feet
40	445 Feet	445 Feet

Source: A Policy on Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials, 5th ed., 2004.

Existing Traffic Volumes

Existing peak hour (2005/2006) traffic volumes were collected for the weekday a.m. peak hour, weekday p.m. peak hour and for weekend peak. Data was also collected when school was not is session. Refer to Appendix F for Traffic Count Data Sheets.

Manual turning movement counts were taken on Thursday, December 8, 2005 (weekday peak), from 6:30 a.m. to 9:00 a.m. and from 4:30 p.m. to 7:00 p.m., on Monday, October 9, 2006 (non school day) from 4:00 p.m. to 6:30 p.m., and on Saturday, October 14, 2006 (weekend peak) from 12 noon to 1:00 p.m. Existing weekday peak hour turning movement volumes are shown on Figures 3.6-3 and 3.6-4 for the intersections noted below:

- US Route 9 (Broadway) and Fairlawn Avenue (north access), and
- US Route 9 (Broadway) and Fairlawn Avenue (south access).

The intersection of US Route 9 (Broadway) and Fairlawn Avenue (north) is a three-way intersection which is stop sign controlled. A single lane is provided on Fairlawn Avenue for northbound and southbound movements onto US Route 9. US Route 9, in this location, is two lanes in each direction merging to/from one lane in each direction to the north of the northern intersection with Fairlawn Avenue.

The intersection of US Route 9 (Broadway) and Fairlawn Avenue (south) is a three way intersection which is stop sign controlled. This intersection has recently been improved by the Village. A single lane is provided on Fairlawn Avenue for northbound and southbound movements onto US Route 9. US Route 9 is two lanes in each direction in the project vicinity

The manual turning movement counts establish the 2005/2006 existing traffic volumes. This existing data forms the basis of the 2007/2008 No Build condition (the scenario without the Proposed Action) and the 2007/2008 Build condition (conditions with the Proposed Action).

The counts identify the weekday morning and afternoon peak hour periods. The morning peak hour for the studied intersections occurs between 8:00 a.m. and 9:00 a.m. and the afternoon peak hour occurs between the 4:30 p.m. and 5:30 p.m. The peak hours are influenced predominantly by commuter traffic. The proximity of the subject site to area schools and associated bus traffic contributes to a heavy vehicle mix in this area (about eight percent). On non-school days, the p.m. peak occurs between 5:00 p.m. and 6:00 p.m.

Figure 3.6-5 shows the hourly traffic volume data on US Route 9 in the vicinity of the project collected by New York State Department of Transportation (2003). A review of this data indicates the following:

- Sunday traffic volumes are lower than Saturday traffic volumes;
- the Saturday peak hour traffic volumes are lower than weekday a.m. peak hour traffic volume; and
- the weekday a.m. peak hour traffic volume is lower than the weekday p.m. peak hour traffic volume.

The Appendix F, Figure 1 graph compares the traffic volumes along US Route 9, illustrating the high a.m. and p.m. weekday peak hours. The volumes data collected by the NYS DOT are consistent with the December 2005 and October 2006 manual counts. A comparison of the NYS DOT counts with the manual counts taken while school was not in session (October 9, 2006) indicated that the non school day volumes were lower than the school day volumes. Therefore, the critical time period for analysis of traffic conditions is the school day weekday a.m. and p.m. peak hours.

Traffic analyses conducted for these intersections are based on traffic flow rates for the highest fifteen minute volumes in the peak hours as is standard practice.

Level of Service Criteria

The levels of service at the above intersections were evaluated using the Transportation Research Board's Highway Capacity Manual[1] methodology. The Existing, Future No Build Condition (future without the project), and Build Condition (future with the project) evaluations show the potential change in traffic operations as a result of traffic generated by the proposed Waters Edge project.

The Highway Capacity Manual and the Highway Capacity Software procedures document the methodology used for modeling levels of service, and average vehicle delay at unsignalized intersections. Level of service is defined as a measure of the operational quality of an intersection. Level of service A is the highest, most efficient level, and level of service F is the lowest level. The operational quality of an intersection is based upon the average amount of time a vehicle is delayed. Levels of service are examined by lane group, i.e. the set of lanes allowing the same movements on an approach. The Highway Capacity Manual identifies a level of service F as occurring when there are not enough gaps of suitable time to allow the traffic volume from a minor street to safely enter traffic on the major street.

The definitions of delay consider all delays including startup, deceleration and acceleration delays. The New York State Department of Transportation prefers use of the Highway Capacity Manual methodologies over other traffic capacity methodologies.

[1] Source: Highway Capacity Manual, National Academy of Sciences, Transportation Research Board, National Research Council, Washington, DC, 2000.

Table 3.6-4 presents the levels of service criteria for unsignalized intersections.

Table 3.6-4
Unsignalized Intersections - Level of Service Criteria

Level of Service	Average Control Delay (Seconds Per Vehicle)
A	less than or equal to 10
B	greater than 10 and less than or equal to 15
C	greater than 15 and less than or equal to 25
D	greater than 25 and less than or equal to 35
E	greater than 35 and less than or equal to 50
F	greater than 50

Source: Highway Capacity Manual, National Academy of Sciences, Transportation Research Board, National Research Council, Washington, DC, 2000.

Existing Levels of Service

The study intersections were evaluated for existing levels of service. The results of the level of service analyses are summarized in Table 3.6-5. Capacity analysis calculations for Existing, No-Build, and Build conditions are provided in the EAF, which is located in Appendix I of this DEIS.

Table 3.6-5 shows that all of the studied lane groups operate at the most efficient levels of service A to C during both the a.m. and p.m. peak hours.

No vehicles were observed turning right at Fairlawn Avenue during the p.m. peak hour. An eastbound right turn trip was added to all conditions, to assess the effect of traffic at either location.

Table 3.6-5
Existing Condition - Level of Service Summary

Intersection Road	Lane Group (Approach Direction - Movement)	A.M. Weekday Peak Hour			P.M. Weekday Peak Hour		
		Volume to Capacity Ratio	Delay (seconds /vehicle)	Level of Service	Volume to Capacity Ratio	Delay (seconds/ vehicle)	Level of Service
US Route 9 Broadway and Fairlawn Avenue (North)							
US Route 9 Broadway	NB - L, T	0.00	8.5	A	0.00	8.8	A
Fairlawn Avenue (North)	EB - L, R	0.02	13.2	B	0.02	16.2	C
US Route 9 Broadway and Fairlawn Avenue (South)							
US Route 9 Broadway	NB - L, T	0.00	8.5	A	0.00	8.7	A
Fairlawn Avenue (South)	EB - L, R	0.01	15.5	C	0.02	16.0	C

Level-of-Service (see Table 3.6-4 for level of service criteria).
NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound.
L = left, R= right, T = through, (e.g. WB - L = Westbound left).

Source TMA 2006.

3.6.3 No-Build Traffic Conditions (Impacts)

For the purposes of this analysis, future homes on the subdivided lots are projected to be fully constructed and occupied by 2007/2008. Typically, a project's traffic impact is assessed by comparing future traffic conditions without the project (the 2007/2008 No-Build condition) to traffic conditions with project-generated traffic (the 2007/2008 Build condition).

No-Build traffic conditions are determined based on a number of factors: (1) improvements in the local road network that are planned or underway; (2) traffic from general population growth in the region and, (3) traffic from identified development projects in the project vicinity.

Future No Build conditions were established using an annual regional growth traffic rate of two percent for two years.

The New York State Department of Transportation (NYS DOT) does not have any major plans for road improvements in this area, thus no adjustments for road improvements were made to the No-Build or Build traffic analysis.

The Village of Dobbs Ferry Building Department was contacted to obtain a list of pending and approved development projects within the project vicinity. The Village of Dobbs Ferry[2] identified one pending project which could potentially have traffic impacts on the intersections studied. The Saint Cabrini Nursing Home, located to the north of the project site and west of US Route 9, has received approval to construct a 10,000 square foot expansion. Currently, two patients can occupy a typical room at Saint Cabrini. The purpose of the expansion is to provide single occupancy rooms for all patients. Thus, the expansion is not intended to increase capacity of the facility and therefore, would not generate additional traffic. If an increase in traffic occurred as a result of this expansion, including construction traffic, it would be accounted for in the four percent background growth.

Peak hour traffic volumes for the a.m. and p.m. No-Build conditions represent the background traffic growth of two percent per year added to existing traffic volumes. No-Build traffic volumes are shown on Figures 3.6-6 and 3.6-7.

No-Build Level of Service

Table 3.6-6 summarizes the levels of service projected for the No-Build condition. There is no change to the operating levels of service under No-Build conditions. All movements are anticipated to continue to operate at the more efficient levels of service A to C.

[2] Phone Conversation with Brian Cook, Building Inspector, Village of Dobbs Ferry, December 12, 2005.

Table 3.6-6
No-Build Condition - Level of Service Summary

Intersection Road	Lane Group (Approach Direction - Movement)	A.M. Weekday Peak Hour			P.M. Weekday Peak Hour		
		Volume to Capacity Ratio	Delay (seconds /vehicle)	Level of Service	Volume to Capacity Ratio	Delay (seconds/ vehicle)	Level of Service
US Route 9 Broadway and Fairlawn Avenue (North)							
US Route 9 Broadway	NB - L, T	0.00	8.6	A	0.00	8.9	A
Fairlawn Avenue (North)	EB - L, R	0.02	13.6	B	0.03	16.8	C
US Route 9 Broadway and Fairlawn Avenue (South)							
US Route 9 Broadway	NB - L, T	0.00	8.6	A	0.00	8.8	A
Fairlawn Avenue (South)	EB - L, R	0.01	15.9	C	0.03	16.6	C

Level-of-Service (see Table 3.6-4 for level of service criteria).
NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound.
L = left, R= right, T = through, (e.g. WB - L = Westbound left).

Source: TMA.

3.6.4 Potential Impacts - Build Traffic Conditions

The applicant proposes to subdivide a 4.4 acre property into eleven (11) lots. The proposed layout of the irregular shaped property conforms to a newly designed road system, which complements the existing road system of Fairmead. Ten of the eleven lots will front on a new looped road which will connect to Fairlawn Avenue. Lot 11 located in the northeastern portion of the site, fronts along the northern section of Atilda Avenue. Roads internal to the project will be constructed to Village standards and will be 28 feet wide. On street parking will be prohibited. See Figure 3.6-8 for proposed site layout. Currently, portions of the roads located in the vicinity of the project site are demapped. According to the letter received from the Village of Dobbs Ferry Department of Public Works, the dedication (mapped) of the proposed roads would be a negligible impact to the Village. Refer to Appendix E.

Traffic to be generated by the 12 single family residences from an earlier plan (a conservative generation for the current proposed 11 lot plan) for the Waters Edge subdivision was projected using the Trip Generation, Institute of Transportation Engineers (ITE), 7th edition, Washington, DC, 2003. The future residential use is expected to generate 17 trips during the a.m. and 16 trips in the p.m. peak hour. The exiting and entering trip rates and trips from Waters Edge are shown in Tables 3.6-7 and 3.6-8.

The number of units has been reduced to 11 single family residences. One existing residence is being taken down resulting in a net increase of ten single family residences. The trip generation based on a net increase of ten units is slightly less making the traffic analysis conservative. In the a.m. peak hour based on ten unit net increase, the trip generation is 4 entering and 12 exiting trips, or a reduction of one exiting trip. In the p.m. peak hour based on ten unit net increase, the trip generation is 9 entering and 5 exiting trips, or a reduction of one entering and one exiting trip.

Table 3.6-7 Project Site Trip Rate Summary				
Land Uses {ITE Code}	Trip Rate			
	A.M. Peak Hour		P.M. Peak Hour	
	IN (Trips/ Unit)	OUT (Trips/ Unit)	IN (Trips/ Units)	OUT (Trips/ Units)
12 Single Family units {210} *	0.372	1.115	0.835	0.490
Units are in residential dwelling units Trip Generation, Institute of Transportation Engineers, 7th edition, Washington, DC, 2003.				
*The number of units has been reduced to 11 and removing an existing unit for a net increase of ten units				

Table 3.6-8 Project Site Total Trips Generated						
Land Uses	Site Generated Trips					
	A.M. Peak Hour			P.M. Peak Hour		
	IN Trips	OUT Trips	TOTAL Trips	IN Trips	OUT Trips	TOTAL Trips
12 Single Family units	4	13	17	10	6	16
Trip Generation, Institute of Transportation Engineers, 7th edition, Washington, DC, 2003.						
*The number of units has been reduced to 11 and removing an existing unit for a net increase of ten units						

The trips from the residential development are expected to follow the same travel patterns as the existing traffic. The percentage distribution of the site generated trips is shown in Figure 3.6-9. The site generated trips (Figures 3.6-10 and 3.6-11) were added to the No Build traffic volumes (Figures 3.6-6 and 3.6-7) to obtain the Build traffic volumes (Figures 3.6-12 and 3.6-13).

Build Traffic Conditions Level of Service

The study intersections were analyzed for the Build condition. The levels of service are summarized in Table 3.6-9. There is no change to the traffic operating levels of service expected as a result of the proposed Waters Edge project compared to either Existing or No-Build Conditions. All lane groups are expected to continue to operate at the more efficient levels of service C or better, during both the a.m. and the p.m. peak hour periods.

Table 3.6-9
Build Condition - Level of Service Summary

Intersection Road	Lane Group (Approach Direction - Movement)	A.M. Weekday Peak Hour			P.M. Weekday Peak Hour		
		Volume to Capacity Ratio	Delay (seconds /vehicle)	Level of Service	Volume to Capacity Ratio	Delay (seconds/ vehicle)	Level of Service
US Route 9 Broadway and Fairlawn Avenue (North)							
US Route 9 Broadway	NB - L, T	0.00	8.6	A	0.00	8.9	A
Fairlawn Avenue (North)	EB - L, R	0.04	14.1	B	0.06	16.6	C
US Route 9 Broadway and Fairlawn Avenue (South)							
US Route 9 Broadway	NB - L, T	0.00	8.6	A	0.00	8.8	A
Fairlawn Avenue (South)	EB - L, R	0.02	13.0	C	0.03	15.0	C

Level-of-Service (see Table 3.6-4 for level of service criteria).
NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound.
L = left, R= right, T = through, (e.g. WB - L = Westbound left).

Source: TMA.

Build Conditions Transportation Improvements (Mitigation)

Based on this traffic analysis, no change to the traffic operating levels of service is expected as a result of the proposed Waters Edge project compared to either the Existing or the No-Build condition. All lane groups are expected to continue to operate at the more efficient levels of service C or better during both the a.m. and the p.m. peak hour periods. No roadway capacity improvements are proposed.

A summary of the level of service conditions is shown in Table 3.6-10.

Table 3.6-10
Level of Service Summary

Intersection Road	Lane Group (Approach Direction - Movement)	A.M. Weekday Peak Hour			P.M. Weekday Peak Hour		
		Existing Level of Service	No-Build Level of Service	Build Level of Service	Existing Level of Service	No-Build Level of Service	Build Level of Service
US Route 9 Broadway and Fairlawn Avenue (North)							
US Route 9 Broadway	NB - L, T	A	A	A	A	A	A
Fairlawn Avenue (North)	EB - L, R	B	B	B	C	C	C
US Route 9 Broadway and Fairlawn Avenue (South)							
US Route 9 Broadway	NB - L, T	A	A	A	A	A	A
Fairlawn Avenue (South)	EB - L, R	C	C	C	C	C	C

Level-of-Service (see Table 3.6-4 for level of service criteria).
NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound.
L = left, R= right, T = through, (e.g. WB-L = Westbound left).

Source TMA.

Transportation Improvements (Mitigation)

The following measures should be considered to improve transportation conditions in the Fairmead neighborhood whether or not the proposed project is constructed.

If the existing "WATCH OUT FOR CHILDREN" sign is a Village sign, it should be removed. The corresponding standard "CHILDREN AT PLAY" warning sign "should be limited to locations where because of unusual conditions motorists might not expect children playing in the vicinity of the roadway." (Source: Official Compilation Codes Rules and Regulations of the State of New York, 17 Transportation (B) section 237.3 page 2202). Furthermore the sign "is not intended for general use in residential areas or on other highways where obvious residential development alerts motorists to the possibility of children at play."

As the northern potion of Atilda Avenue is a dead end, a “DEAD END” warning sign should be added at the entrance to that block regardless of the proposed development.

Some street signs in the area should be updated regardless of the project to standard white letters on green background, and major streets should be added to signs.

Removal of sight distance restricting vegetation and providing Stop Signs should be considered at existing intersection corners even if the project is not developed.

The portion of Fairlawn Avenue near Constance Avenue needs maintenance. Portions of Fairlawn Avenue and Constance Avenue are substandard widths and should be widened to facilitate emergency access.

The Village of Dobbs Ferry may wish to consider trimming or removing the hedge along the north side of the intersection of Broadway and Fairlawn Avenue. As described earlier, sight distance at this location requires the driver to be located at the Stop Bar, thus the front of the vehicle approaches the edge of pavement. Sight distance would be improved by trimming or removing the hedge locate to the north. The Village should also consider permanent parking restrictions along the west side of Broadway for 250 feet in both the north and south directions of Fairlawn Avenue (north). Restricting parking on the west side of Broadway just north of this intersection would insure sight distance and will also improve access to the fire hydrant located in this area for fire responders.

Clearing of the vegetation and realignment of the edge of pavement would alleviate some sight distance restrictions. In addition, placement of Stop Signs is suggested at the following locations as shown in Figure 3.6-14:

- Atilda Avenue northbound at Fairlawn Avenue
- Atilda Avenue southbound at Fairlawn Avenue
- Fairlawn Avenue eastbound at Atilda Avenue
- Waters Edge Drive southbound at Fairlawn Avenue
- Constance Avenue eastbound at Waters Edge

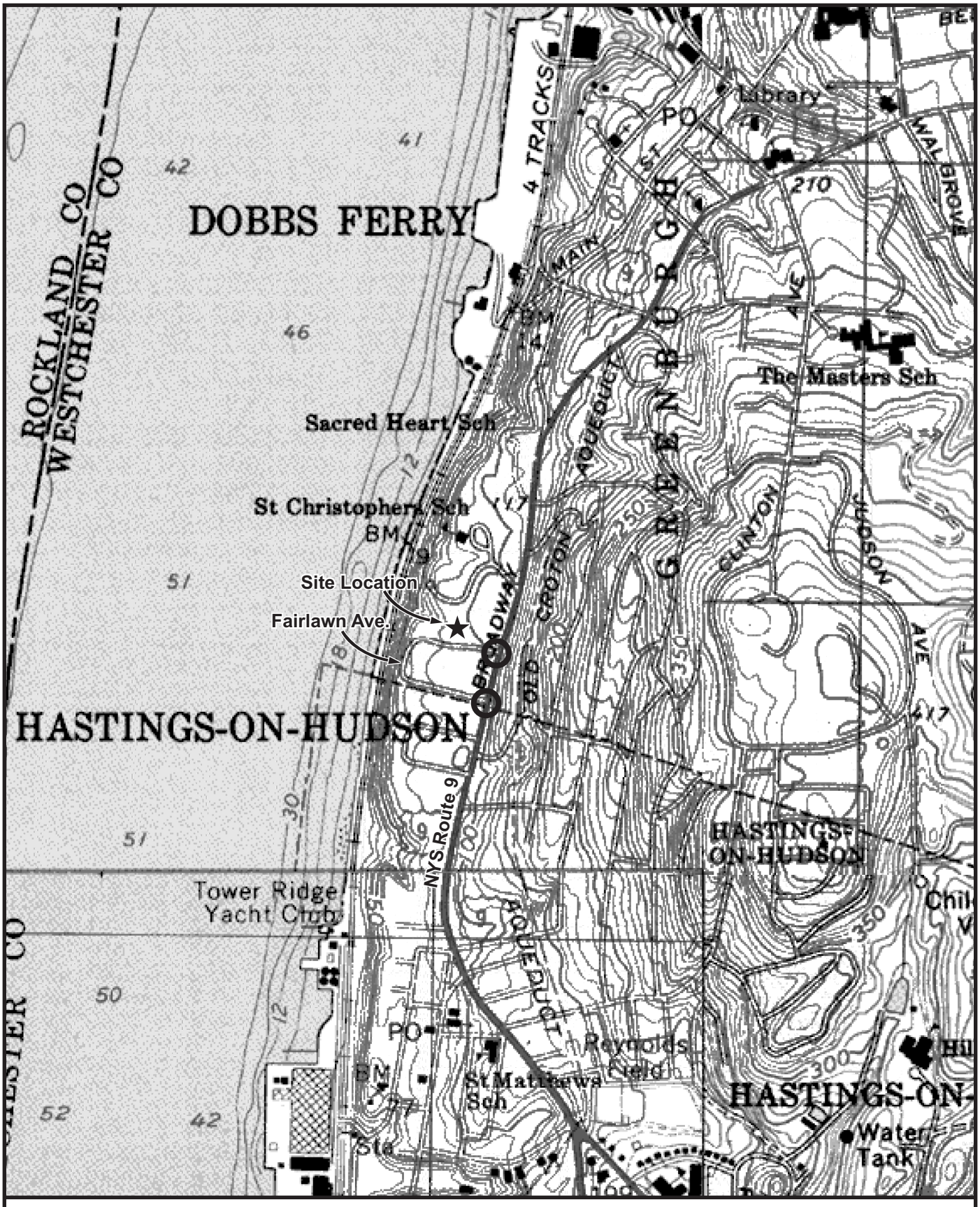
This should improve safety by clearly designating right-of-way and calming traffic in the project vicinity, while reducing the necessary sight lines at these locations. The Sycamore tree at the

Atilda Avenue and Fairlawn Avenue intersection is proposed to remain, thereby necessitating the eastbound Constance Avenue traffic to be stopped for sight distance.

Fairlawn Avenue between Constance Avenue and Atilda Avenue is proposed to be widened along with the eastern portion of Constance Avenue. The widening of roads would improve emergency access and areas repaved would improve the road conditions of Fairlawn Avenue and Constance Avenue. The above stop signs for Waters Edge and Constance Avenue should be reviewed after construction to determine if stop ahead signs are need or if vegetation removal is sufficient for stop sign visibility.

A restriction on parking between and just north of the Fairlawn Avenue intersections with US Route 9 should be considered. This change and any other work in the state right-of-way would require a work permit from the State.

Any street sign that is to be moved should be replaced and updated with a new major street sign. Providing information on both streets is helpful to emergency responders. As previously noted, the upgrading of street signs should be considered as a future maintenance even if this project were not constructed.



N
W E
S

Intersections Studied

Figure 3.6-1: Site Location
Waters Edge
Village of Dobbs Ferry, Westchester County, New York
Base: USGS 7.5-minute Topographic Map, Nyack Quad
Scale: 1 inch = 1,000 feet

File 05113 12/15/05
JS:\05113

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

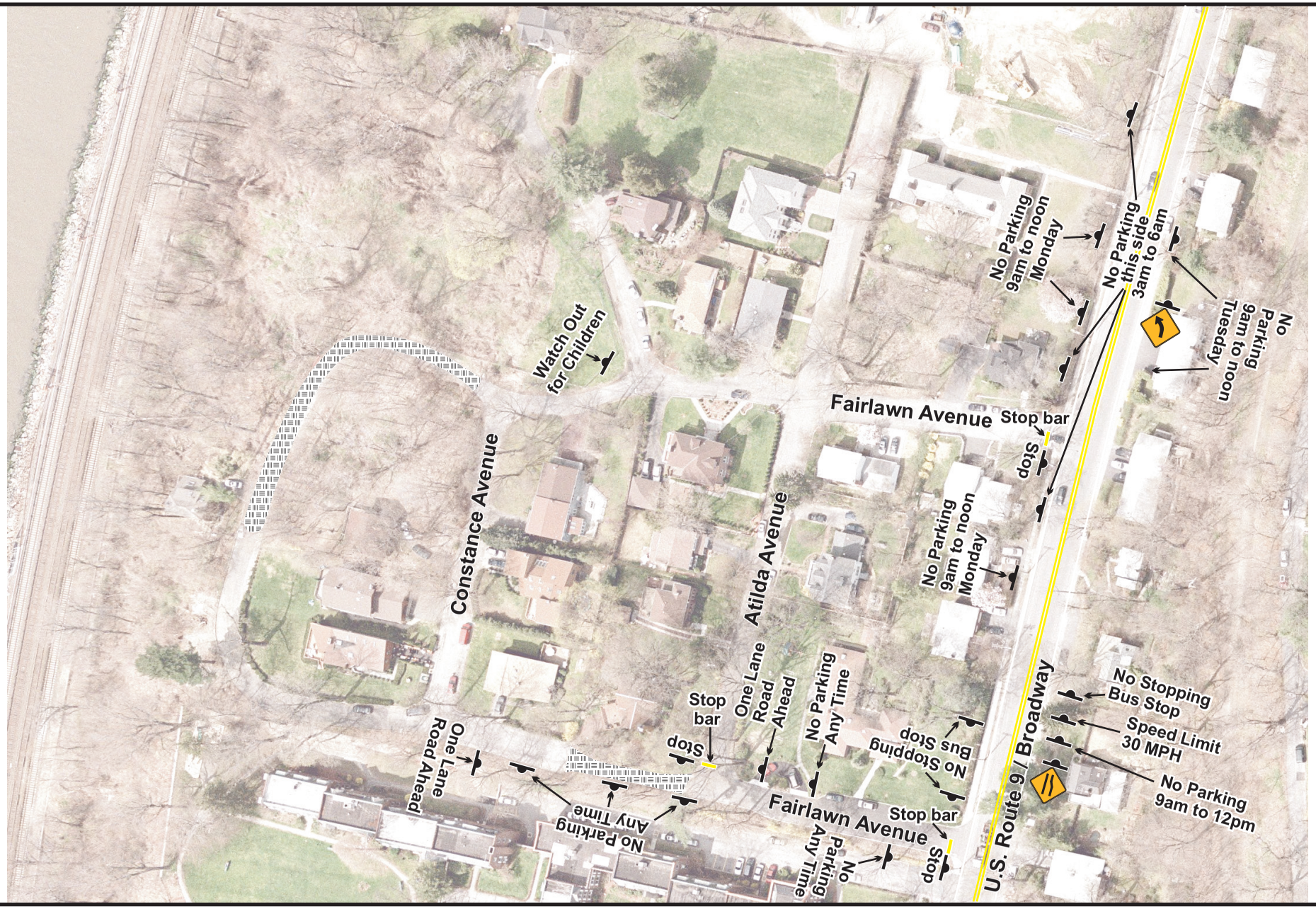


Figure 3.6-2: Traffic Controls
Waters Edge
Village of Dobbs Ferry, Westchester County, New York
Base: NYS GIS Clearinghouse, 2004 Aerial Photo
Approx. Scale: 1" = 120'

File 05113 10/31/06
JS/05113

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

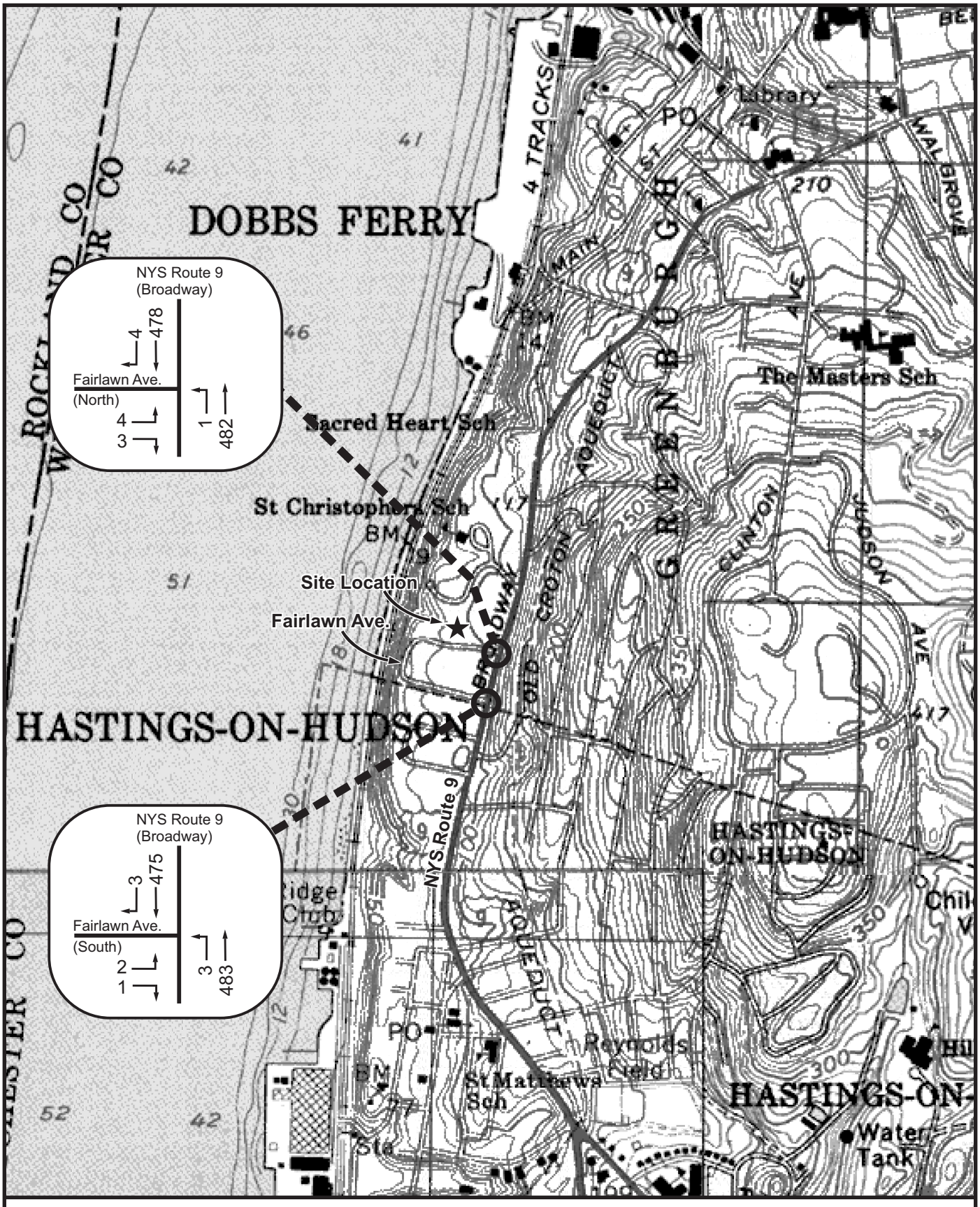


Figure 3.6-3: Existing AM Peak Hour Traffic
Waters Edge
Village of Dobbs Ferry, Westchester County, New York
Base: USGS 7.5-minute Topographic Map, Nyack Quad
Scale: 1 inch = 1,000 feet

File 05113 12/15/05
JS:\05113

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

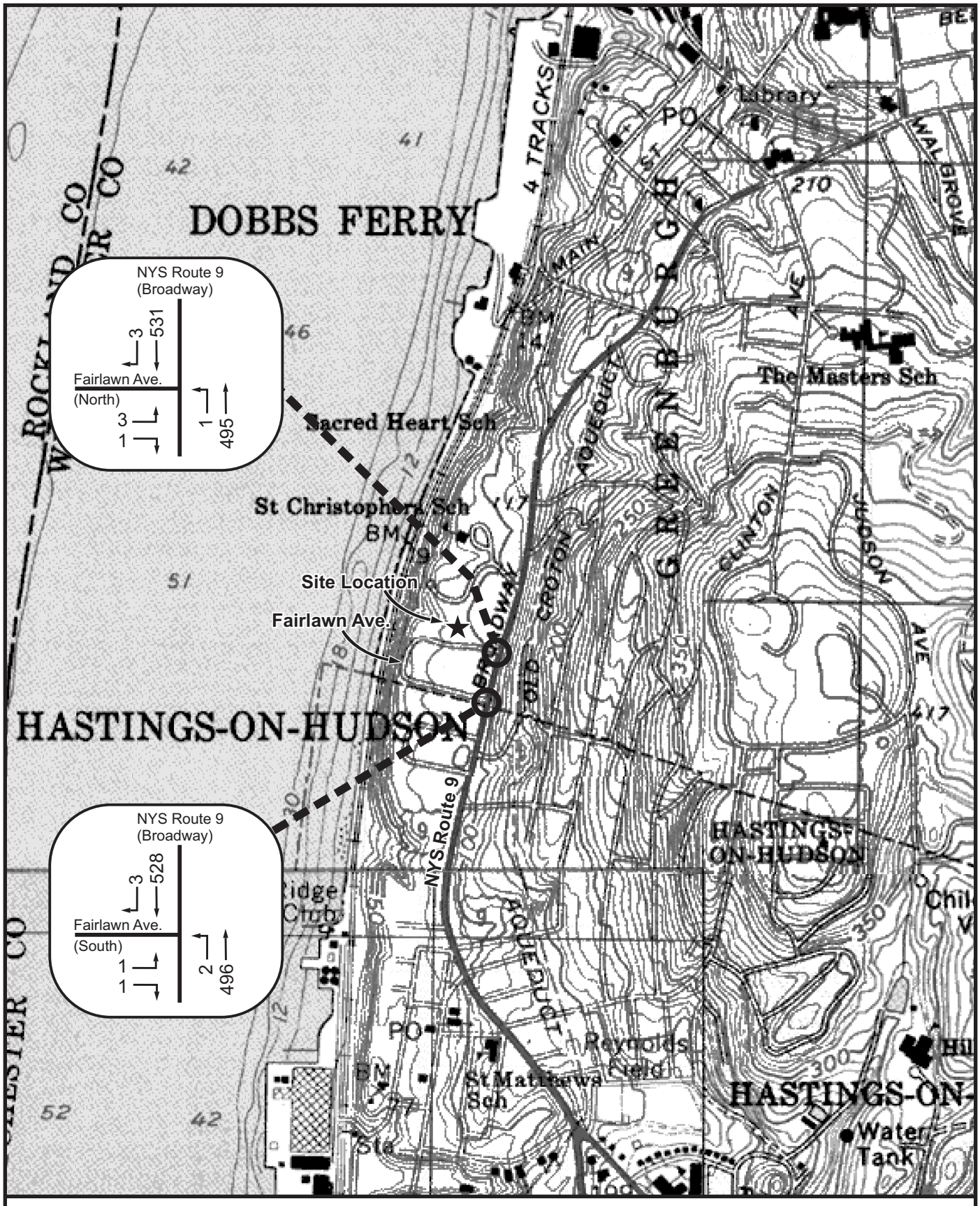


Figure 3.6-4: Existing PM Peak Hour Traffic
Waters Edge
Village of Dobbs Ferry, Westchester County, New York
Base: USGS 7.5-minute Topographic Map, Nyack Quad
Scale: 1 inch = 1,000 feet

File 05113 12/15/05
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Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

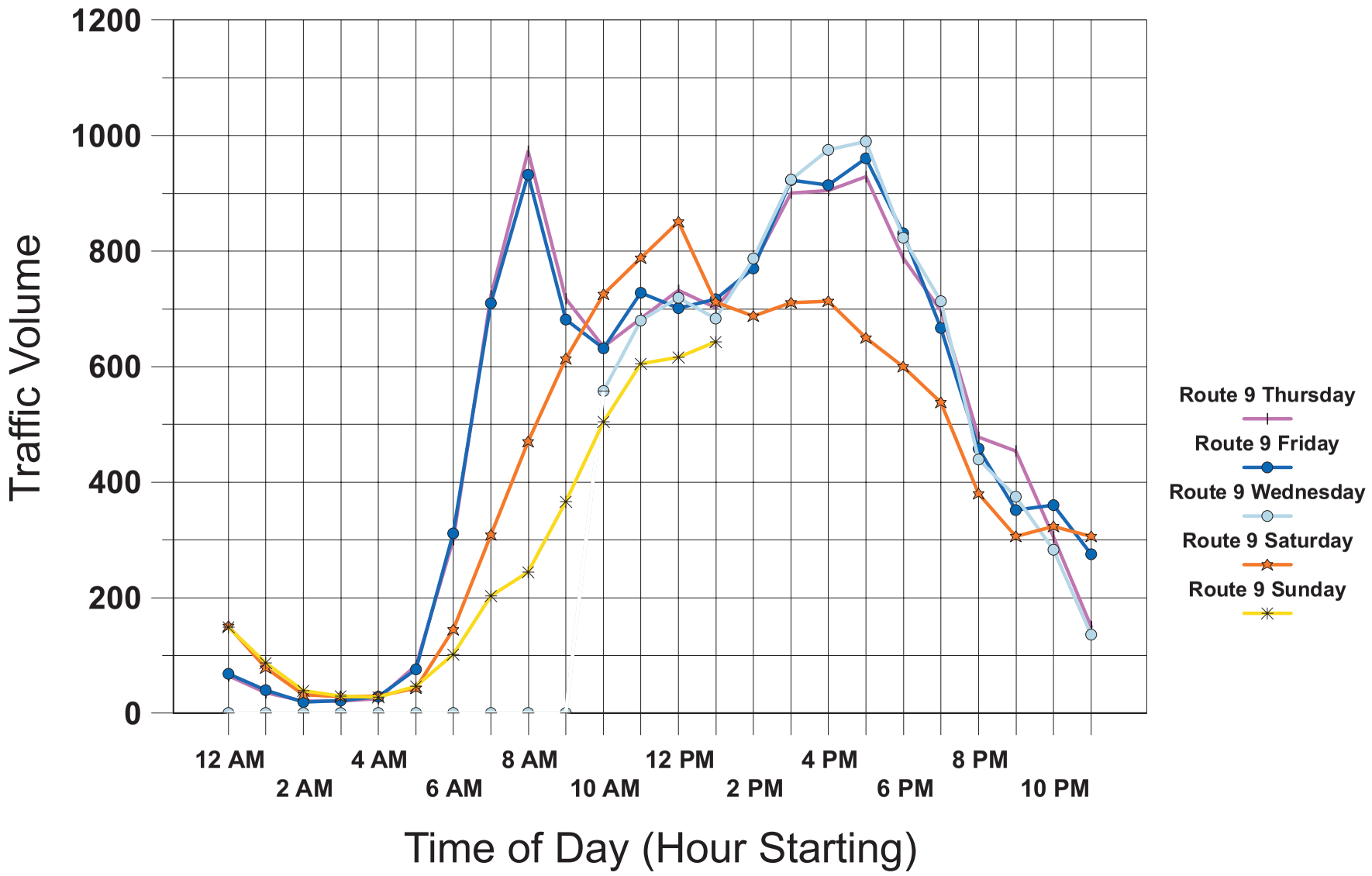

Figure 3.6-5: U.S. Route 9 Houly Traffic Volumes
Waters Edge
Village of Dobbs Ferry, Westchester County, New York
Source: TMA, Based on NYS DOT Data

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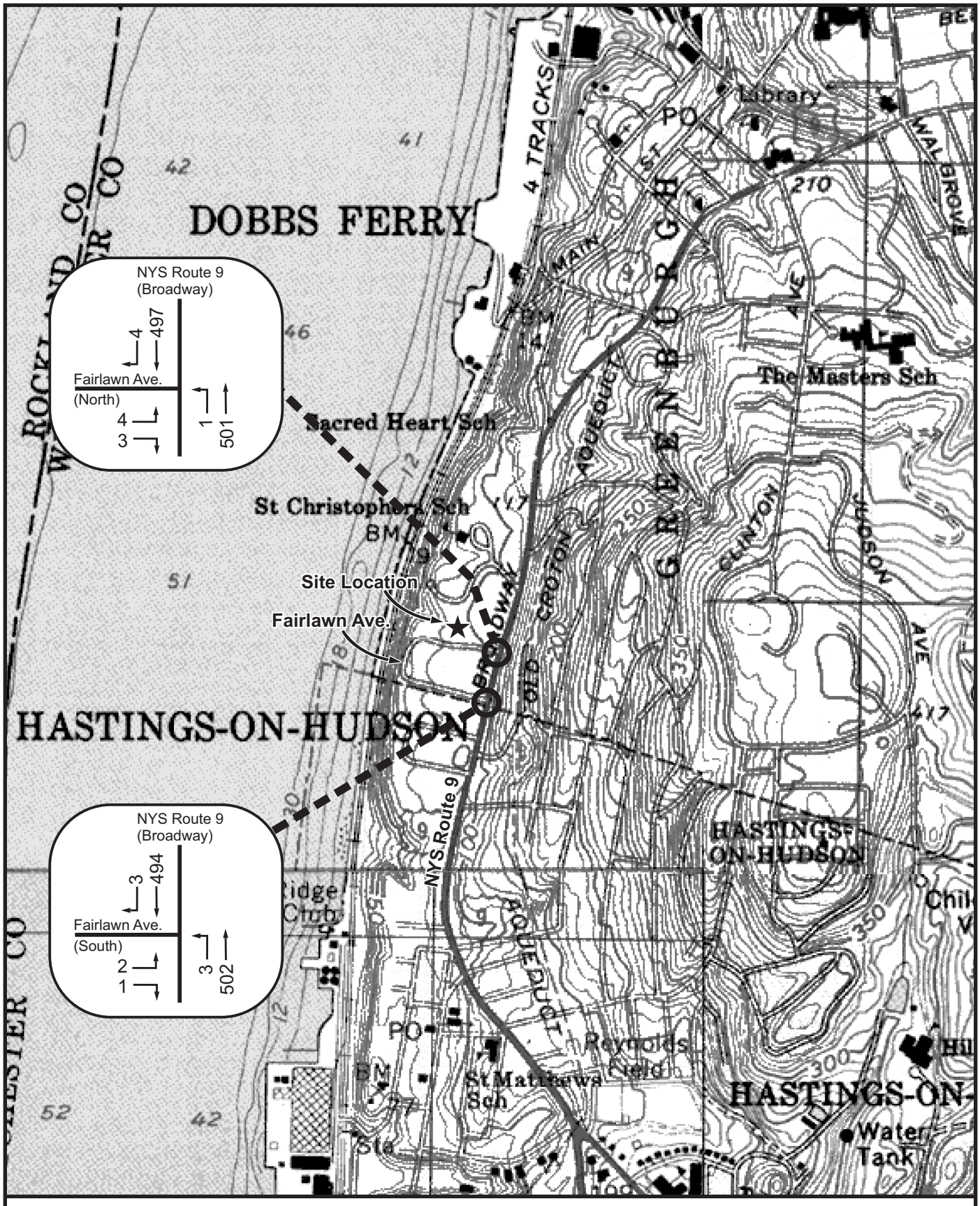

Figure 3.6-6: No Build AM Peak Hour Traffic
Waters Edge
Village of Dobbs Ferry, Westchester County, New York
Base: USGS 7.5-minute Topographic Map, Nyack Quad
Scale: 1 inch = 1,000 feet

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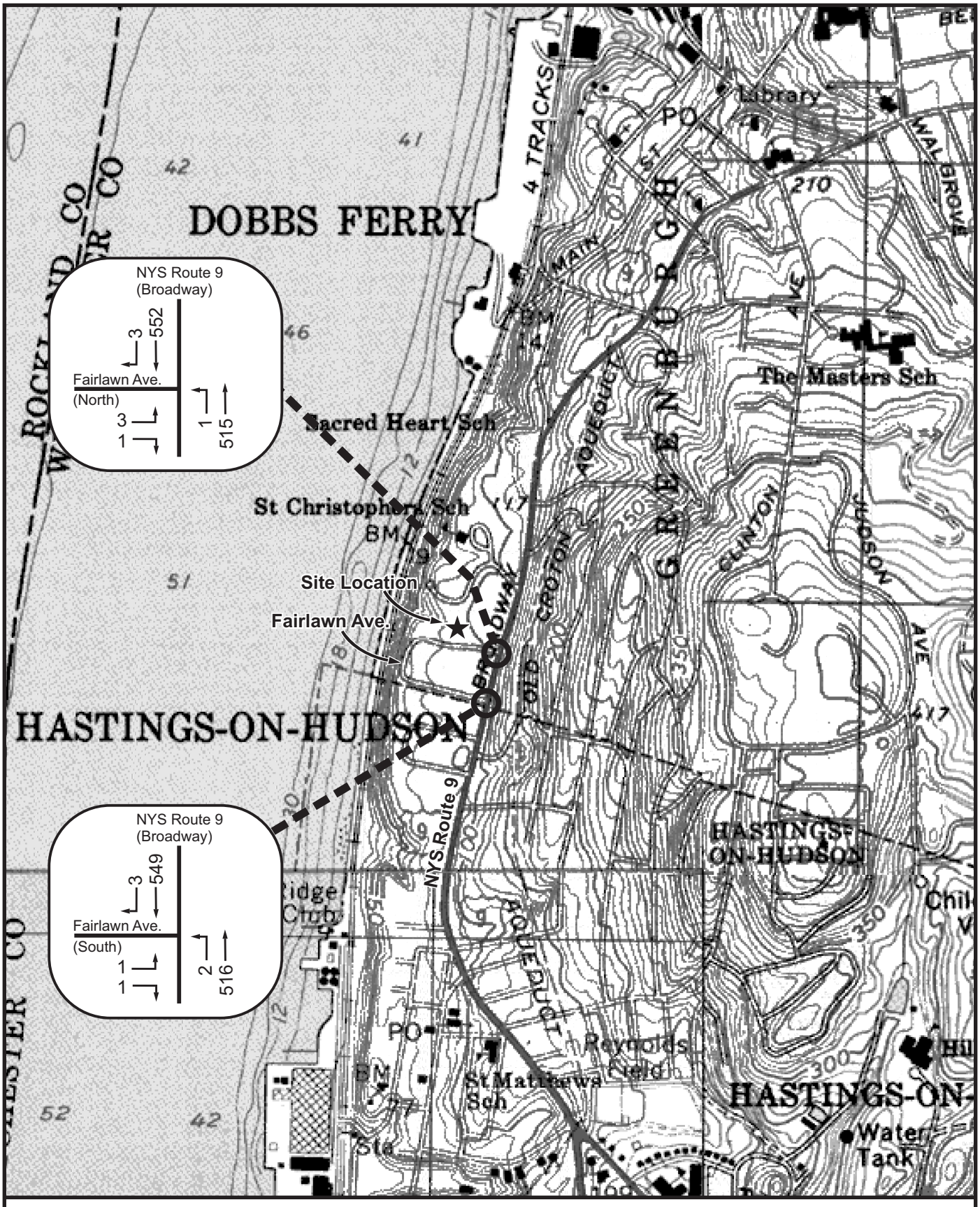

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Intersections Studied

Figure 3.6-7: No Build PM Peak Hour Traffic

Waters Edge

Village of Dobbs Ferry, Westchester County, New York

Base: USGS 7.5-minute Topographic Map, Nyack Quad

Scale: 1 inch = 1,000 feet

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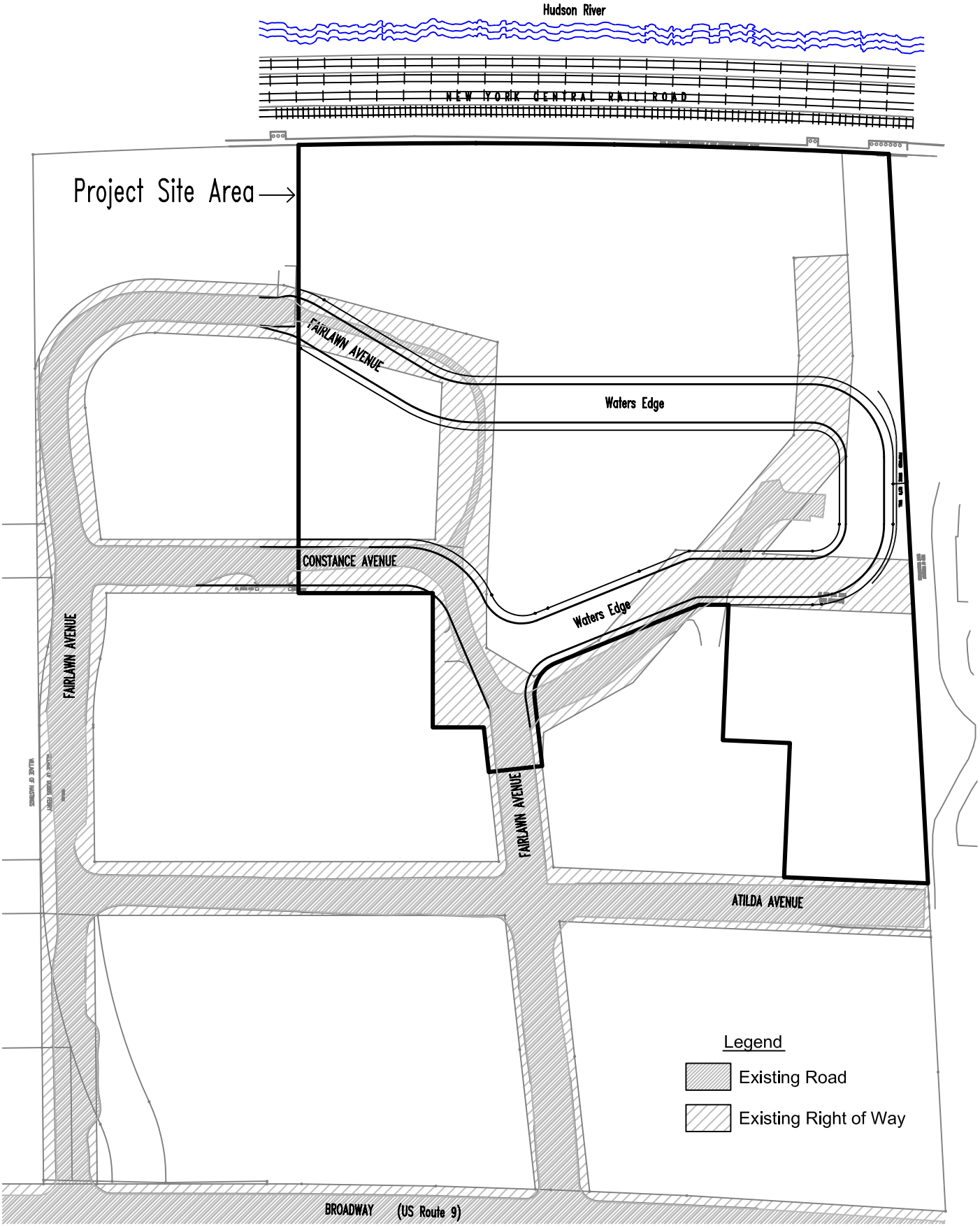

Figure 3.6-8: Existing Street Layout under Proposed Layout

Waters Edge at Dobbs Ferry

Village of Dobbs Ferry, Westchester County, New York

Source: Paul J. Petretti, 9/2004

Scale: 1" = 100'

North

File: 05113 Fig 3.6-8 12/01/06

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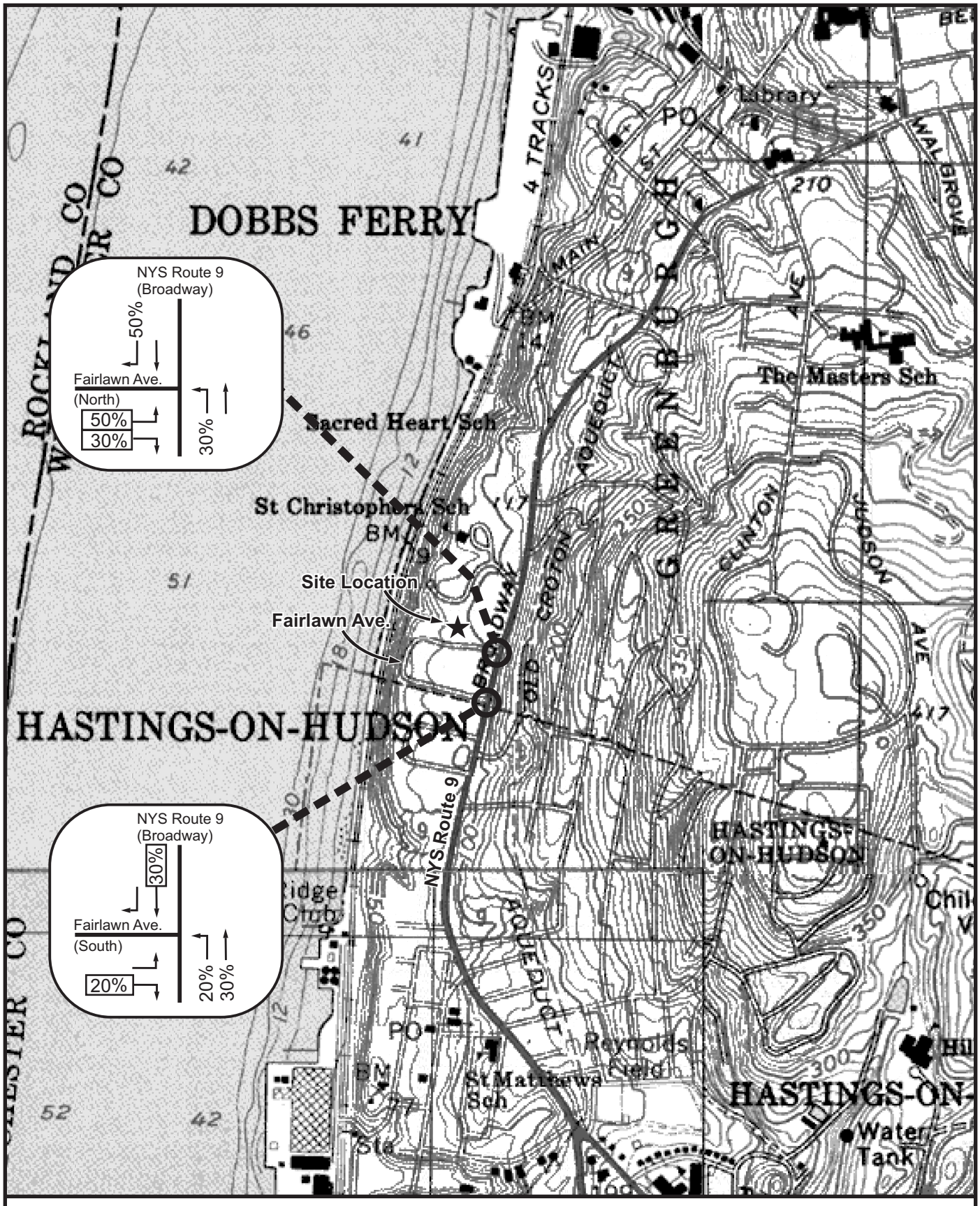

Figure 3.6-9: Arrival/Departure Percent Distribution

Waters Edge

Village of Dobbs Ferry, Westchester County, New York

Base: USGS 7.5-minute Topographic Map, Nyack Quad

Scale: 1 inch = 1,000 feet

N W E S

O Intersections Studied

XX Outbound

XX Inbound

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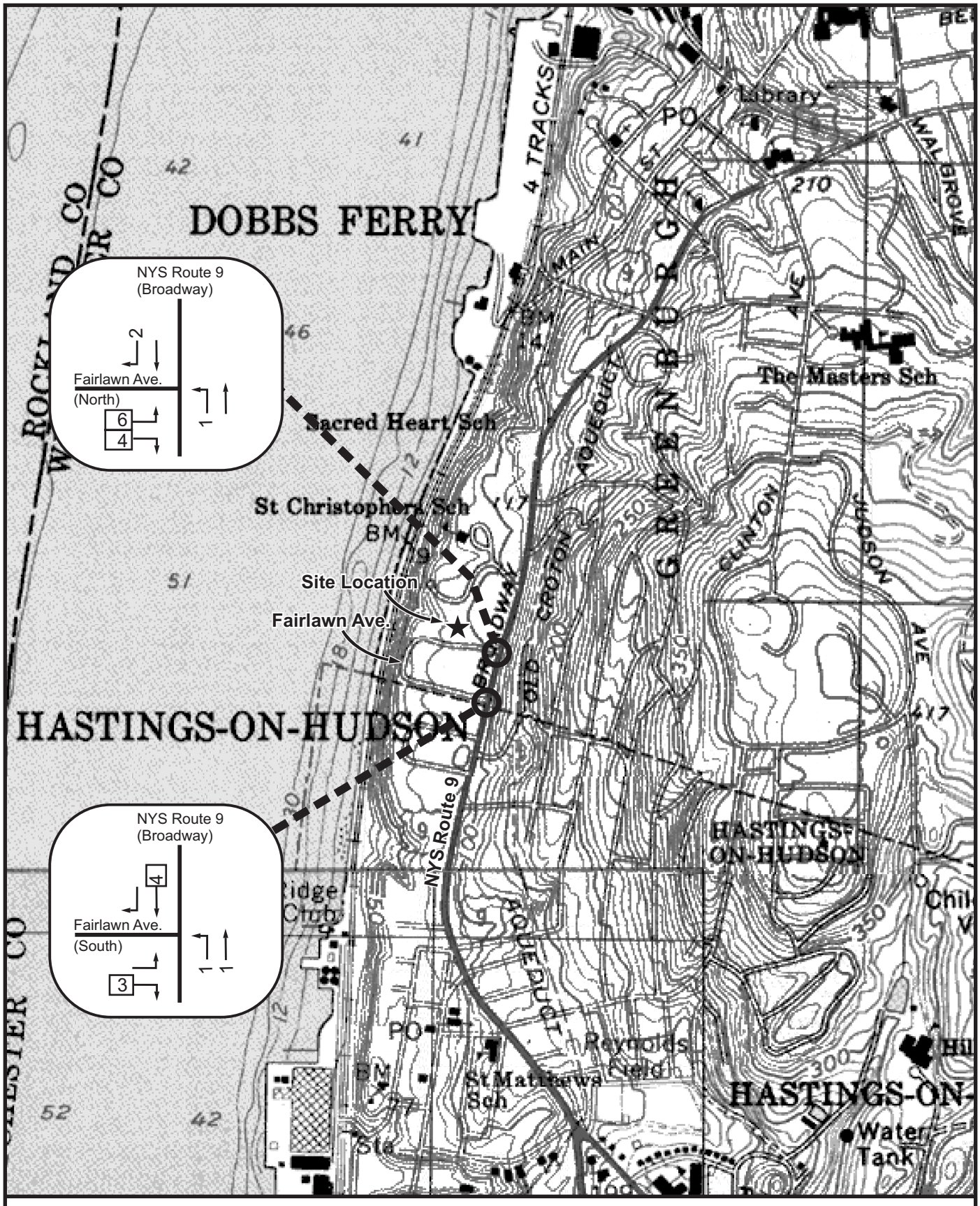

Figure 3.6-10: AM Peak Hour Site Generated Trips
Waters Edge
Village of Dobbs Ferry, Westchester County, New York
Base: USGS 7.5-minute Topographic Map, Nyack Quad
Scale: 1 inch = 1,000 feet

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O Intersections Studied
XX Outbound
XX Inbound

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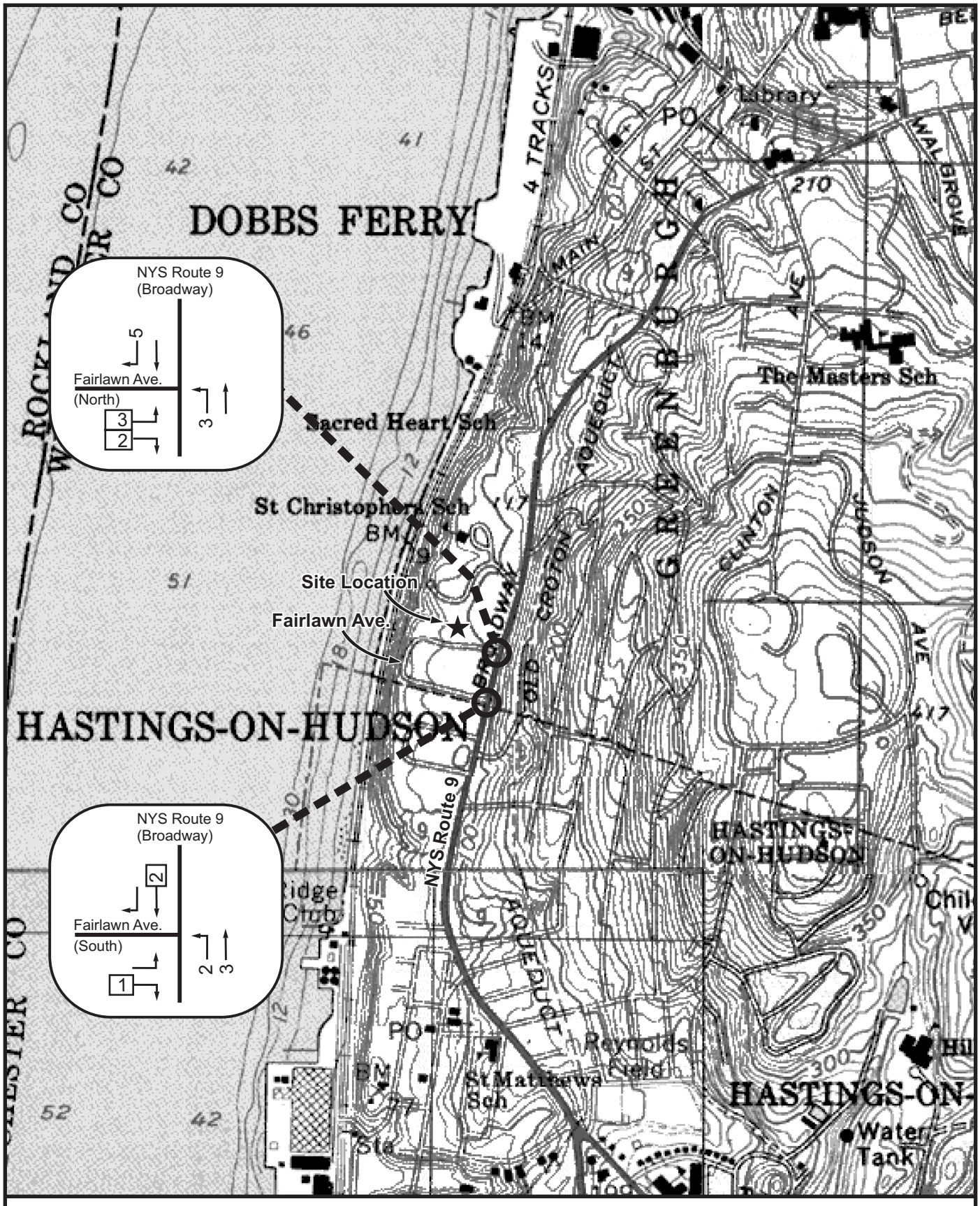

Figure 3.6-11: PM Peak Hour Site Generated Trips
Waters Edge
Village of Dobbs Ferry, Westchester County, New York
Base: USGS 7.5-minute Topographic Map, Nyack Quad
Scale: 1 inch = 1,000 feet

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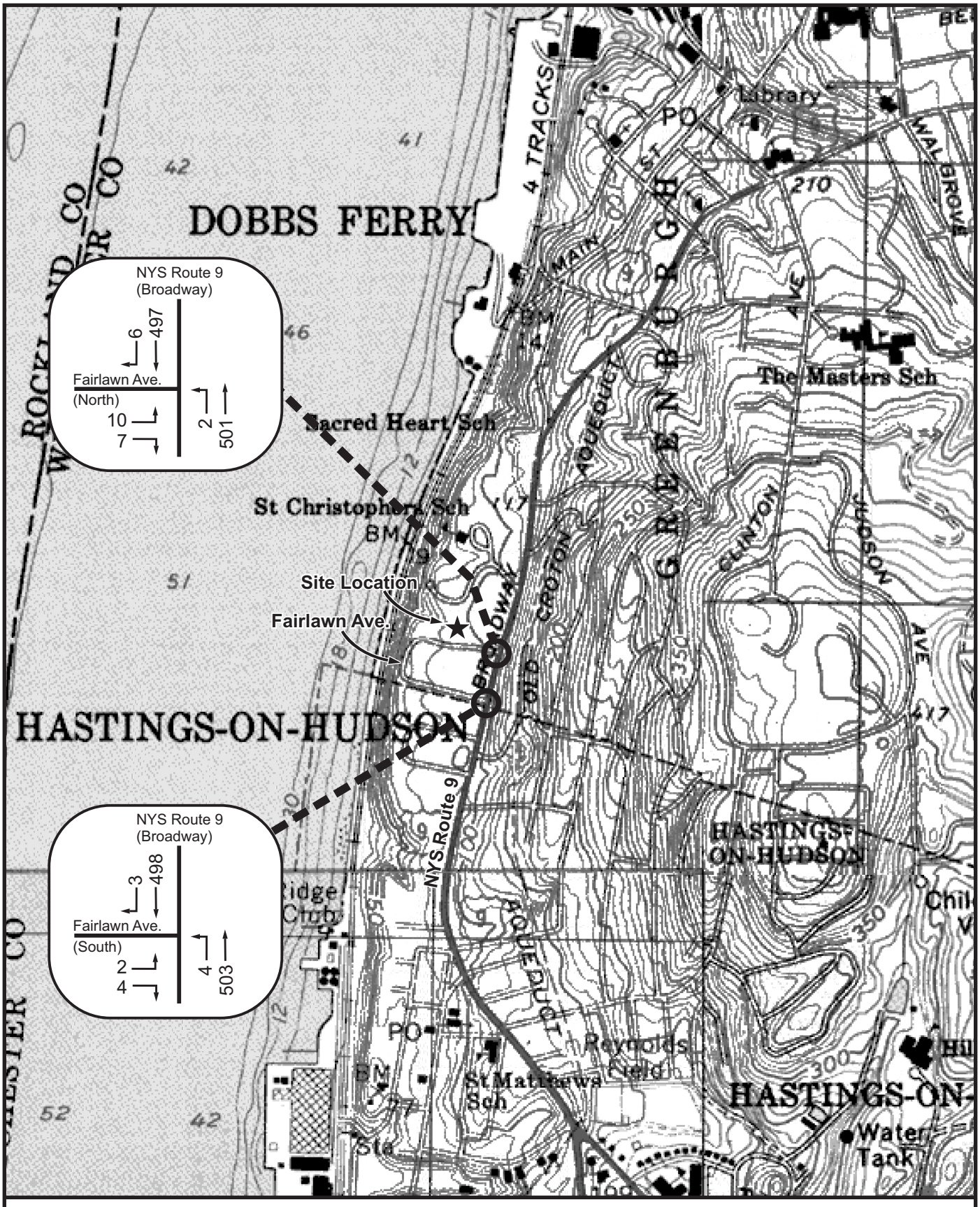

Figure 3.6-12: Build AM Peak Hour Traffic
Waters Edge
Village of Dobbs Ferry, Westchester County, New York
Base: USGS 7.5-minute Topographic Map, Nyack Quad
Scale: 1 inch = 1,000 feet

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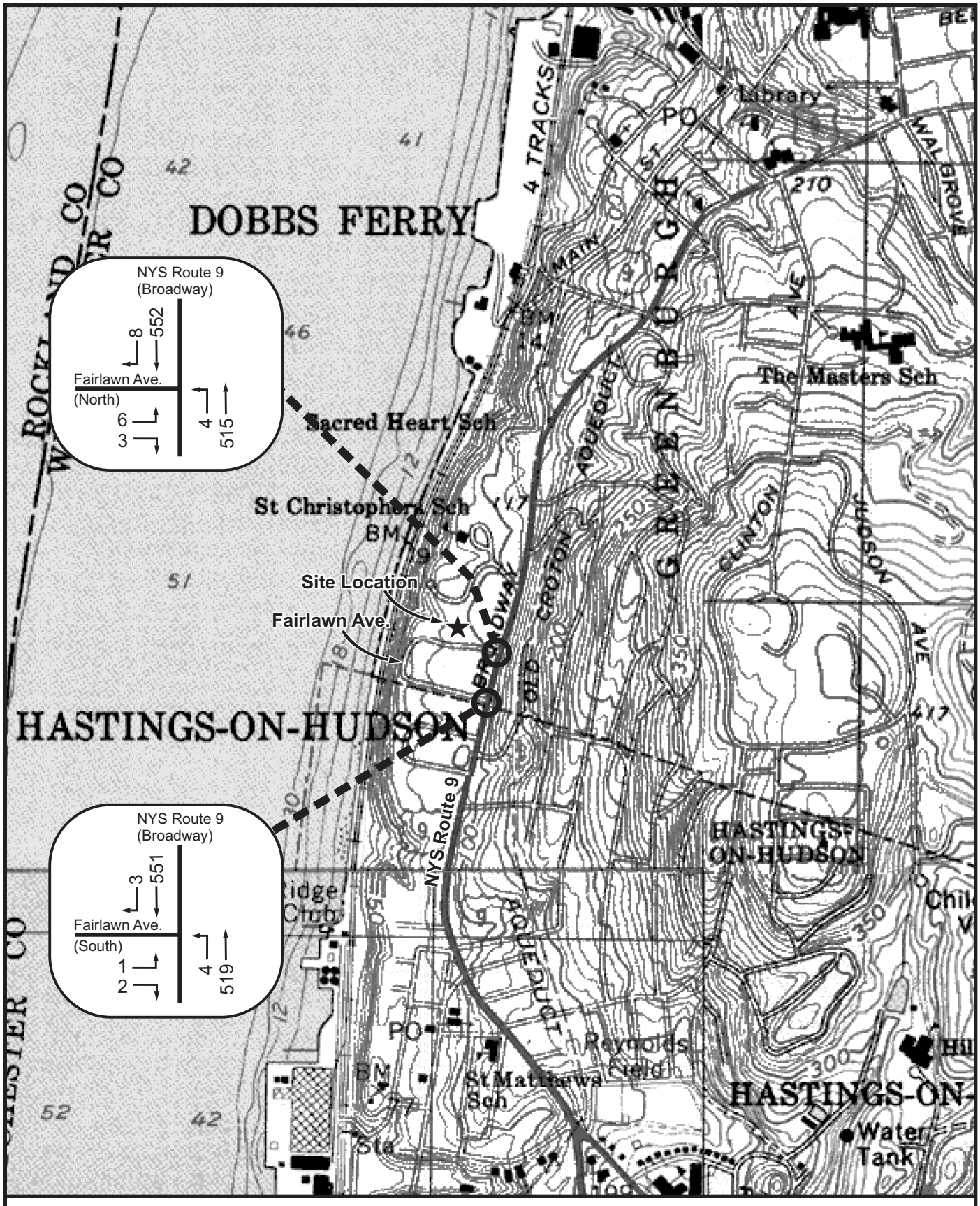

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Intersections Studied

Figure 3.6-13: Build PM Peak Hour Traffic
Waters Edge
Village of Dobbs Ferry, Westchester County, New York
Base: USGS 7.5-minute Topographic Map, Nyack Quad
Scale: 1 inch = 1,000 feet

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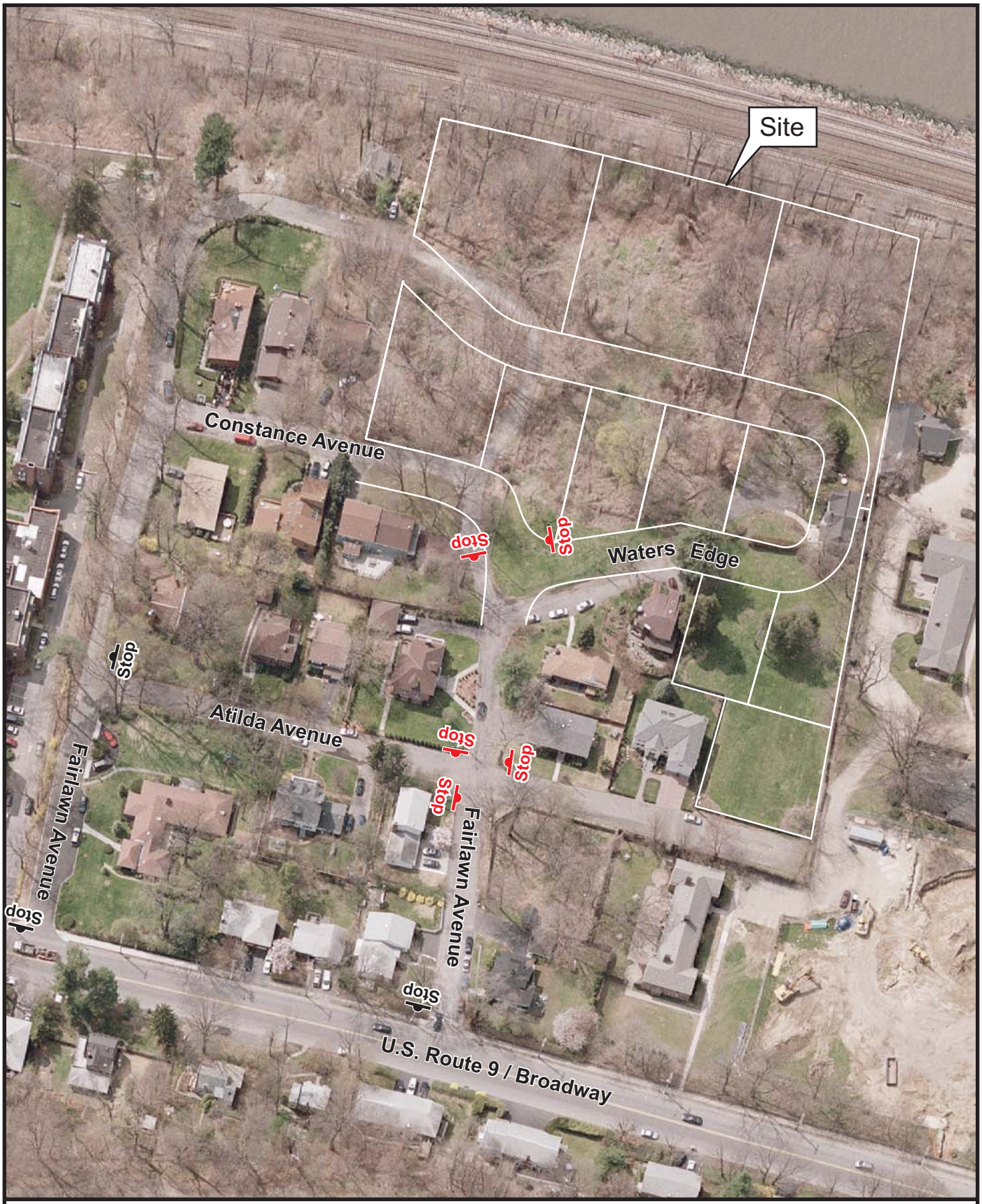

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Legend

Stop Proposed Stop Sign

Stop Existing Stop Sign

Figure 3.6-14: Proposed and Existing Stop Signs Waters Edge

Village of Dobbs Ferry, Westchester County, New York

Base: NYS GIS Clearinghouse, 2004 Aerial Photo

Approx. Scale: 1" = 120'

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