

IV. H – TRAFFIC AND TRANSPORTATION

INTRODUCTION

This section of the DEIS assesses the Proposed Actions impact of traffic, roadway operating conditions and parking conditions. The full Traffic and Parking Study, prepared by Provident Design Engineering, PLLC (PDE) is included in the Appendix.

1.) EXISTING CONDITIONS

A. TRAFFIC & PARKING:

(a.) Existing Vehicle Circulation:

The Project Site was historically served by various curb cuts and driveways along both Waverly Avenue and Fenimore Road. This access was “cleaned up” with the construction of the original self-storage Building, which also improved safety along Waverly Avenue, as vehicles were previously backing-out of the Site directly onto Waverly Avenue. Along Waverly Avenue currently, the access to the northern portion of the Site is an unsignalized entrance/exit (with only right turns out permitted). A second curb cut along Waverly Avenue is located at the southern end of the Site and serves the self-storage Building and other contractor/worker parking, but does not provide a vehicular connection to the rest of the Project Site.

Along Fenimore Road, there is an existing curb cut between the barn and the front building that was converted to a right turn exiting movement only as part of the original self-storage project. An additional curb cut provides limited access to the barn area. Vehicles sometimes back out of this driveway onto Fenimore Road.

The intersection of Waverly Avenue and Fenimore Road is controlled by a multi-phase traffic signal.

The intersection of Fenimore Road and Railroad Way is an unsignalized “T” intersection. For the traveling public, Railroad Way does not appear to be an official roadway and has railroad tracks traveling through it. Railroad Way is narrow with no curbing but having two buildings forming its borders. Railroad Way also does not have an official Village street sign. For vehicles traveling eastbound on Fenimore Road, there is a non-typical sign on the side of a warehouse building indicating Railroad Way, while no signs are present in the westbound direction. There are no One-Way Signs at the intersection and no striping along the roadway. However, at the southern end of the alleyway, there is a Do Not Enter Sign so the alleyway is assumed to be one-way southbound. There is also no physical indication to the public when a train may be traveling on Railroad Way. There are no pedestrian facilities or sidewalks along Railroad Way. Thus, limited traffic utilizes Railroad Way at the intersection. There are other ways to connect to other portions of Railroad Way such as Ogden Avenue.

Fenimore Road at Railroad Way consists on one lane per direction. There are two sets of double yellow lines across from Railroad Way and there is no break in the double yellow lines for left turns.

The original traffic counts for the intersection of Fenimore Road and Waverly Avenue were originally obtained from a Traffic Study performed on behalf of the Village of Mamaroneck and were conducted on various days in September 2016 from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM. These traffic counts were then grown to account for current conditions based upon information provided by the Village Planner and Village Engineer including other traffic counts/Studies performed on behalf of the Village. The traffic counts at the Site Driveways were conducted on in November 2017. PDE conducted traffic counts at this intersection as well as at the Site Driveways. The Peak Hours for the intersection are 7:30 AM to 8:30 AM and 4:45 PM to 5:45 PM. The Existing Traffic Volumes are illustrated on Figure IV.H-1.

Table IV.H-1 summarizes the existing Levels of Services for the intersection and the Site Driveways.

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Table IV.H-1 EXISTING LEVELS OF SERVICE		
Intersection	AM Peak	PM Peak
Fenimore Road & Waverly Avenue	C	C
	22.6 ⁷	21.8 ⁵
Fenimore Road & Existing Exit Driveway	C	a
	15.0	0.0
Waverly Avenue & Existing Driveway 1 (Contractor Offices)	b	c
	14.7	15.1 ⁶
Waverly Avenue & Existing Driveway 2 (Self-Storage)	b	b
	11.1	12.0
Fenimore Road and Railroad Way	a	a
	0.4	0.4

Source: Provident Design Engineering

Note: Signalized intersection Levels of Service are represented by Upper Case letters while unsignalized intersections are represented by lower case letters. Average Delay is provided below the Levels of Service and is illustrated in seconds per vehicle.

(b.) Truck Loading & Unloading:

Currently, truck loading for the existing self-storage facility occurs from the designated off-street parking spaces located in front of the building. These trucks are typically smaller vans. Truck loading for the various contractor and other uses on the Site occurs haphazardly, in various locations.

(c.) Existing Site Parking Conditions:

The current parking spaces on the Project Site are split between two separate lots, as well as on-street parking spaces along Waverly Avenue.

PDE conducted parking observations on various days (both weekdays and weekends) and at various times throughout the day at the Site. There were very few vehicles ever parked for the existing self-storage facility and there were never times that ample, excess parking spaces were not available on the Project Site.

In addition, PDE reviewed data for the entrance and exit into the existing self-storage facility from July 1, 2017 to August 24, 2017. These indicated that the maximum number of parking spaces for the self-storage facility utilized at any one time throughout the entire period was five spaces, which included two parking spaces utilized by employees.

B. RAIL TRANSPORTATION:

The Project Site is located adjacent to a rail spur owned by CSX. CSX is the transportation corporation that acquired the New York Central Railroad, later Conrail system, and serves much of the eastern United States.

The spur provides for occasional rail freight deliveries to neighboring properties, such as Marvel Industries. It is the Applicant's understanding that the tracks are maintained by Marvel Industries and Spatz Properties. No rail freight deliveries are made to the Project Site.

There are no active rail traffic controls along Fenimore Road. There is also no physical indication to the public when a train may be traveling on Railroad Way. The number of trains and their times are limited, and the proposed Project will have no traffic impact on the operation of the trains.

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CSX Freight Rail Spur

A required clearance envelope exists around all CSX tracks. For “Industrial Side Tracks”, a minimum distance of 8’ 8” measured from the center-line of the tracks is required.

The closest building on the Site (the barn) is 8’ 7” from the center-line of the tracks.



2.) FUTURE CONDITIONS WITHOUT THE PROPOSED ACTION:

If the Proposed Action is not developed, the Project Site would continue to operate as it operates today. The existing warehouse buildings would remain in place, accommodating various tenants. Murphy Brothers Contracting would continue to operate their businesses from the Site and the self-storage building would continue to function as it does today. Vehicles will continue to back out of the Site onto Waverly Avenue. The Project would continue to make no use of the CSX freight rail spur, and the existing clearance envelope setback would remain unchanged.

The Future Conditions without the Proposed Action ("No Build") were developed based upon discussions with the Village Planner and Village Engineer as well as various documents provided by the Village's Planner and Engineer including the Village Comprehensive Plan, the various Village Transit Oriented Development Studies, the Waverly Avenue Study, the Village's Vision zero Documents, the Village's Moratorium Traffic Study and NYSDOT Traffic Data. A growth factor of 0.5% per year was provided by the Village and is consistent with the other Village documents. There were no known adjacent developments that would impact traffic in the area that would not be accounted for in the growth rate. Thus, existing traffic was grown to the Build Year by utilizing the growth factored compounded over the years. A No Build Traffic Figure is contained in the Traffic Study.

3.) ANTICIPATED IMPACTS:

A. TRAFFIC & PARKING:

(a.) Vehicle Circulation:

The Proposed Action will reduce the number of curb cuts from four to two. The curb cut along Waverly Avenue currently serving the northern portion of the Site will be closed. The curb cut that currently serves the southern portion of the Site along Waverly Avenue will remain.

The curb cut along Fenimore Road between the Building A and Building B will remain as an exit only driveway (right turns only). The curb cut that currently serves Building B will be removed.

The curb cut along Fenimore Road between the barn and the front building will remain an exit only driveway (right turns only). The curb cut that serves the barn will be removed. Both of the driveways will remain unsignalized under STOP control.

In addition to the modifications to the driveways, the internal circulation at the Site will also be improved. Elimination of some of the buildings will improve traffic flow. In addition, as illustrated on the Site Plan, circulation will become more organized and striped islands will be provided to provide clearer direction. The signage also will be upgraded to improve traffic control. The northern portion of the Site will now be connected with the southern portion of the Site. These improvements will significantly improve traffic flow throughout the Site as well as improve Waverly Avenue and Fenimore Road by reducing the number of curb cuts.

(a.)(b.) Traffic Operating Conditions:

PDE has reviewed the amount of traffic that is generated by the proposed self-storage facility utilizing the Institute of Transportation Engineers' (ITE) publication, "Trip Generation", 10th Edition, for this type of facility (ITE Land Use 151). The 321 additional storage units would conservatively generate approximately 3 entering vehicles and 3 exiting vehicles in the Peak AM Hour and approximately 2 entering vehicles and 3 exiting vehicles during the Peak PM Roadway Hour. During the Weekend Peak Hour, the 321 additional storage units would generate similar amounts, 3 entering vehicles and 2 exiting vehicles. This is minimal traffic and in general, the same vehicle that enters is also the vehicle that exits within the hour, as well as the occasional employee potentially entering or exiting. This minimal traffic will have no impact upon traffic operating conditions in the area. It is less traffic than utilized the previous uses of the Site.

The 700 sf of retail space will also generate minimal traffic as the retail will be limited to self-storage supplies. The ITE 10th Edition (Land Use 920) estimates that this space would conservatively generate approximately 2 entering vehicles and 0 exiting vehicles in the Weekday Peak AM Hour and approximately 2 entering vehicles and 3 exiting vehicles during the Peak PM Roadway Hour. In reality, there would be even less traffic than these amounts as the employee for the retail portion will be the same as for the self-storage portion and the customers would be the self-storage patrons. Similar conditions would be experienced during the Weekend Peak Hour. Importantly, the Proposed Action will eliminate vehicles backing out onto Fenimore Road. The Weekday AM and PM Peak Hours were determined to be the study periods based upon discussions with the Village consistent with the other traffic studies. Traffic volumes in the area of the Site are generally less or similar during the Weekend than the Weekday Peak Hours and thus the impacts would be similar. Table IV.H-2 presents the additional trip generation.

Table IV.H-2 TRIP GENERATION				
Movement	Self-Storage		Retail	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Enter	3	2	2	2
Exit	3	3	0	3

Source: Provident Design Engineering

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PDE also conducted Level of Service capacity analyses for the intersection of Waverly Avenue and Fenimore Road, Railroad Way and Fenimore Road and the Site Driveways. “Build” conditions were also analyzed and incorporate a background growth rate in addition to the Site modifications including the additional Self Storage units as illustrated on Figure IV.H-3.

Table IV.H-2 documents the Build Condition, Levels of Service at the intersection and Site driveways.

Table IV.H-3 BUILD CONDITION LEVELS OF SERVICE		
Intersection	AM Peak	PM Peak
Fenimore Road & Waverly Avenue	C	C
	22.8	21.6
Fenimore Road & Existing Exit Driveway	c	a
	15.1	0.0
Waverly Avenue & Existing Driveway 1 (Contractor Offices)	-	-
	-	-
Waverly Avenue & Existing Driveway 2 (Self-Storage)	b	b
	13.6	12.2
<u>Fenimore Road and Railroad Way</u>	<u>a</u>	<u>a</u>
	<u>0.4</u>	<u>0.4</u>

Source: Provident Design Engineering

Note: To be conservative, no credit was taken for the traffic contractors/workers at the Site that will no longer be present during the Build condition.

The analysis shows that the intersection of Fenimore Road and Waverly Avenue currently operates at Level of Service C in the Peak AM and PM Hours and these Levels of Service will remain the same in the Build Condition.

Minimal change in traffic operations will occur at the Fenimore Road and Railroad Way intersection, with only a very conservative estimated 2 eastbound trips and 1 westbound trip during the Peak AM Hour and 1 eastbound trip and 1 westbound trip during the Peak PM Hour. In reality, there would be a reduction in trips as a result of the Proposed Project as a result of the traffic from the contractors/workers that will no longer be at the Site. Because of the change in traffic patterns due to the current world conditions, traffic was conservatively applied to Railroad Way. Existing, No Build and Build Traffic Volumes were determined and Capacity Analyses were performed for the intersection which indicated that the intersection currently and will continue to operate at appropriate Levels of Service and the Project will have no impact on the operation of the intersection.

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The Site Driveways will also continue to operate at Level of Service C or better. Thus, good Levels of Service are maintained at each of the intersections/driveways. To be conservative, no credit was taken for the traffic contractors/workers at the Site that will no longer be present during the Build condition, which would remove approximately 19 vehicles. As a result, there will actually be less vehicles on the Site in the Build Condition, than present currently.

The self-storage building extension will not generate significant traffic and will not have any significant impact upon the traffic operating conditions of this intersection or on the Site Driveways and adjacent streets.

(b)-(c.) Truck Loading & Unloading:

Currently, there are no designated truck loading spaces on the Site. The proposed reconfigured parking lot plan includes 4 designated truck loading spaces, 2 at the north end of the building addition, 2 in the central area, and 1 toward the southern end, near the existing self-storage building.

(c)-(d.) Site Parking Conditions:

A self-storage facility of a total of 590 units, based upon the Institute of Transportation Engineers' (ITE) publication “Parking Generation”, 5th Edition, would generate a peak parking demand of 8 spaces.

The 700-sf retail space is estimated to generate a parking demand of approximately two parking spaces but would actually require much less as the retail will be limited to self-storage supplies and be sold to the self-storage patrons. In addition, the employee for the self-storage supplies will be the same as the employee for the self-storage facility.

In addition to the parking for Murphy Brothers Contracting, approximately 19 other contractors/workers currently park at the Site. These 19 vehicles will be removed from the Site to accommodate the new self-storage building addition. As a result, there will be less vehicles parking on the Site.

To determine the parking that was to be required for the original self-storage facility at the Site, the parking requirements at other self-storage facilities in the area was reviewed. Table IV.H-4 illustrates the parking spaces provided for other self-storage facilities in Westchester.

Table IV.H-4 PARKING PROVIDED AT OTHER SELF-STORAGE FACILITIES				
Facility	Location	# Units	Parking Spaces Required by Zoning	Spaces Constructed (Variances Granted)
Westy's Self Storage	Port Chester	900	83	22
Safeguard Self Storage	Elmsford	550	68	12
Safeguard Self Storage	New Rochelle	653	48	14
Westy's Self Storage	Tuckahoe	1,500	N/A	24
Black Mountain	New Rochelle	1,182	N/A	12
Tarrytown Self Storage	Tarrytown	577	52	3*
Cube Smart (proposed)	Port Chester	1,000	N/A	10
Mamaroneck Self Storage	Mamaroneck	590	137	2542

Source: Provident Design Engineering

* Based upon maximum recorded

Table IV.H-5 provides a comparison of parking spaces per unit as well as the number of units per parking space for other self-storage facilities in the area.

Table IV.H-5 PARKING RATIOS FOR OTHER SELF-STORAGE FACILITIES				
Facility	Location	# Units	Parking Spaces per Unit	Units per Parking Space
Westy's Self Storage	Port Chester	900	0.0244	41
Safeguard Self Storage	Elmsford	550	0.0218	46
Safeguard Self Storage	New Rochelle	653	0.0214	47
Westy's Self Storage	Tuckahoe	1,500	0.0160	63
Black Mountain	New Rochelle	1,182	0.0101	99
Tarrytown Self Storage	Tarrytown	577	0.0052	192
Cube Smart (proposed)	Port Chester	1,000	0.0100	100
Mamaroneck Self Storage	Mamaroneck	590	0.0424	24

Source: Provident Design Engineering

As illustrated in the above Tables, some of these other facilities in the area have significantly more storage units yet provide a similar number of parking spaces as proposed for the Mamaroneck Self Storage facility expansion. Observations of the parking in these lots indicate minimal vehicles are parked there.

The Mamaroneck Self Storage facility currently has 1-2 employees on-site at any one time. With additional units, this could increase to a maximum of 3 employees on-site at times. A self-storage facility of a total of 590 units, based upon the Institute of Transportation Engineers' (ITE) publication "Parking Generation", 5⁴th Edition, would generate a peak parking demand of 8 spaces.

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The 700-sf retail space is estimated to require approximately two parking spaces based upon the potential use of Site. The Murphy Brothers Contracting portion of the Site will have four full time employees and two Project Managers on-site which are projected to utilize six parking spaces. Murphy Brothers Contracting will generally not generate any visits from the general public or contractors. The other nineteen contractors/workers that currently park on the Site will no longer be parking there as that usage will be replaced by the expansion of the self-storage facility and thus the overall parking demand will be reduced.

The users of the facility are a combination of commercial and residential users and the frequency of their use varies from a couple of times a week to once every several months. Additional detailed information on parking is contained in the Traffic and Parking Study.

With the proposed self-storage facility addition and the modifications to the layout of the Site, there will be 25 parking spaces provided on-site along with four (4) loading spaces, in addition to the on-street parking spaces along Waverly Avenue. The four loading spaces will be utilized by the patrons of the self-storage facility, thus freeing up even more parking spaces.

It is the Applicant's opinion that the parking to be provided will be sufficient to support the operation of the Site. No significant adverse parking impacts are anticipated.

(e) Construction Traffic:

Construction traffic and construction plans are described in detail in Chapter IV.J. The construction traffic and site construction are not projected to have a significant impact on the adjacent roadway network or on the rail activities.

B. RAIL TRANSPORTATION:

The Proposed Action involves demolishing the existing buildings bordering the CSX rail spur, and the construction of the new self-storage building extension.

The demolition of the existing buildings will eliminate the pre-existing non-conforming clearance envelope setback (8' 7" exists where 8' 8" is required). The proposed eastern wall of the new building abutting the CSX spur will be setback 10' 7", which exceeds the required setback. In correspondence from CSX dated July 9, 2018, the Regional Manager for Site Design indicated that "CSX is OK with that proposal."

There will be no traffic impacts to the railroad tracks during the Proposed Action.

4.) MITIGATION MEASURES

The proposed expansion of the self-storage facility will result in very low vehicle trip generation numbers. During the AM peak hour 8 vehicle trips will be generated (or 4 inbound and 4 outbound trips, likely by the same vehicle). During the PM peak hour 10 vehicle trip will be generated (5 inbound and 5 outbound). These same trip generation rates would apply during the weekend peak hour as well. This minimal volume of traffic reflects a reduction in traffic generation below the existing condition, resulting from the elimination of the contractor and other businesses currently operating out of the buildings on the Site. The volume of traffic generated by the Proposed Action will have no impact upon traffic operating conditions in the area. The development of the Site as proposed to support the self-storage building expansion is, in and of itself, a traffic mitigation measure.

The number of curb cuts will be reduced from four to two under the Proposed Action. The curb cut along Waverly Avenue currently serving the northern portion of the Site will be closed. The curb cut that currently serves the southern portion of the Site along Waverly Avenue will remain.

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The curb cut along Fenimore Road between the barn and the front building will remain an exit only driveway (right turns only). The curb cut that serves the barn will be removed.

All of the driveways will remain unsignalized under STOP control.

In addition to the modifications to the driveways, the internal circulation of the Site will also be improved. Elimination of some of the buildings will improve traffic flow. In addition, as illustrated on the Site Plan, circulation will become more organized and striped islands will be provided to provide clearer direction. Site signage will also be upgraded to improve traffic control. The northern portion will now be connected with the southern portion of the Site. These improvements will significantly improve traffic flow throughout the Site as well as improve circulation to and from Waverly Avenue and Fenimore Road by reducing the number of curb cuts.

To ensure no impacts to the CSX rail spur will result from the Proposed Action, CSX has requested that the Applicant:

- Ensure that no impediments are placed in the required clearance envelope when CSX crews are operating on the tracks.
- Contact the CSX Trainmaster prior to construction to alert crews of construction activities.

Additionally, to ensure that the construction of the self-storage building addition and its foundation do not impact the rail spur, the following mitigation measures will be implemented:

- The Applicant will hire an engineering consultant prior to construction to verify exact parameters of all excavation and concrete work along the CSX tracks to preserve the current integrity of the tracks.
- CSX, MARVAL Industries and Spatz Properties will be notified prior to any construction activity in or about Railroad Way and the intersection of Fenimore Road and Railroad Way to make sure CSX, MARVAL Industries and Spatz Properties are aware of any construction activities.
- During the course of construction, the Applicant will not interfere with the egress and ingress of the tracks utilized by CSX and MARVAL.
- Should any work and/or labor require the partial closing and/or impeded access to Railroad Way from Fenimore Road, MBC will perform the aforementioned work in the evening hours between 6pm and 5am with prior consent and authority granted by the Municipality and in coordination with CSX train schedules.
- The Applicant will indemnify the Village of Mamaroneck, Marval Industries, and the Spatz Properties when performing construction near or about railroad way and within any Village right-of-way.