

Zoning

The Springfield Gardens / JFK Airport truck generator site is comprised of a collection of parcels just north of the airport. While the site is generally bordered by 147th Avenue to the north, Rockaway Boulevard to the south, Springfield Boulevard and Springfield Lane to the east and Farmers Boulevard to the west, the study area extends further north to South Conduit Avenue. In addition to being the northern and southern boundaries, South Conduit Avenue and Rockaway Boulevard are the only designated truck routes within the study area.

The parcels within the study area are contained within manufacturing and residential zoning districts (see Figure 6-33). A large majority of the parcels comprising the truck generator site are contained within the M1-1 district. This zoning district which generally lines Rockaway Boulevard and extends north to 147th Avenue permits light-manufacturing uses that adhere to a series of strict performance standards listed in the *New York City Zoning Ordinance*. As the buffer between more intense manufacturing uses and adjacent residential and commercial districts, the M1-1 zoning district also permits certain retail, commercial, community facility and recreational uses. A floor area ratio (FAR) of 1.0 is the maximum allowed in the district. Off-street parking requirements vary depending on land use contained on the parcel. The eastern portion of the truck generator site, as well as the parcels comprising the study area north of 147th Avenue are zoned R3-2. This general residence zoning district permits all types of dwelling units including detached and semi-detached, single- and two-family houses, garden apartments, row houses with a maximum permitted FAR of 0.5, plus a 0.1 attic allowance. All community facilities are permitted in the R3-2 zoning district. One off-street parking space is required for each dwelling unit.

Community Facilities

Springfield Park, consisting of 23 acres, is bound by 183rd/184th streets to the west, 145th Road to the north, Springfield Boulevard to the east and 147th Avenue to the south. This NYC Department of Parks and Recreation facility contains two (2) little league fields and two outdoor tennis courts. This park does not front on a NYC truck route.

The **Saratoga Family Inn**, located on Rockaway Boulevard, provides transitional housing for homeless families. This private, non-profit organization is a residential education and job-training center designed to strengthen and preserve families. The south end of this facility, adjoining Rockaway Boulevard, is located on a NYC truck route.

Idlewild Park, operated by the NYC Department of Parks and Recreation, is bounded by 149th Avenue, Brookville Boulevard, Rockaway Boulevard and Springfield Boulevard. The park contains marshland, grassland, dune swales and freshwater wetland habitats. This park also contains one turf regulation baseball field with an overlapping soccer field. The south end of the park, adjoining Rockaway Boulevard, is located on a NYC Through Truck Route.

Christ the King Roman Catholic Senior Center and Day Care Center is located on 145th Road between Farmers Boulevard and 178th Place. This facility does not front on a NYC truck route.

The **First Star Day Care Learning Center** is located at the intersection of Farmers Boulevard and Guy Brewer Boulevard. This facility accommodates approximately 45 children. This center is not located on a NYC truck route.

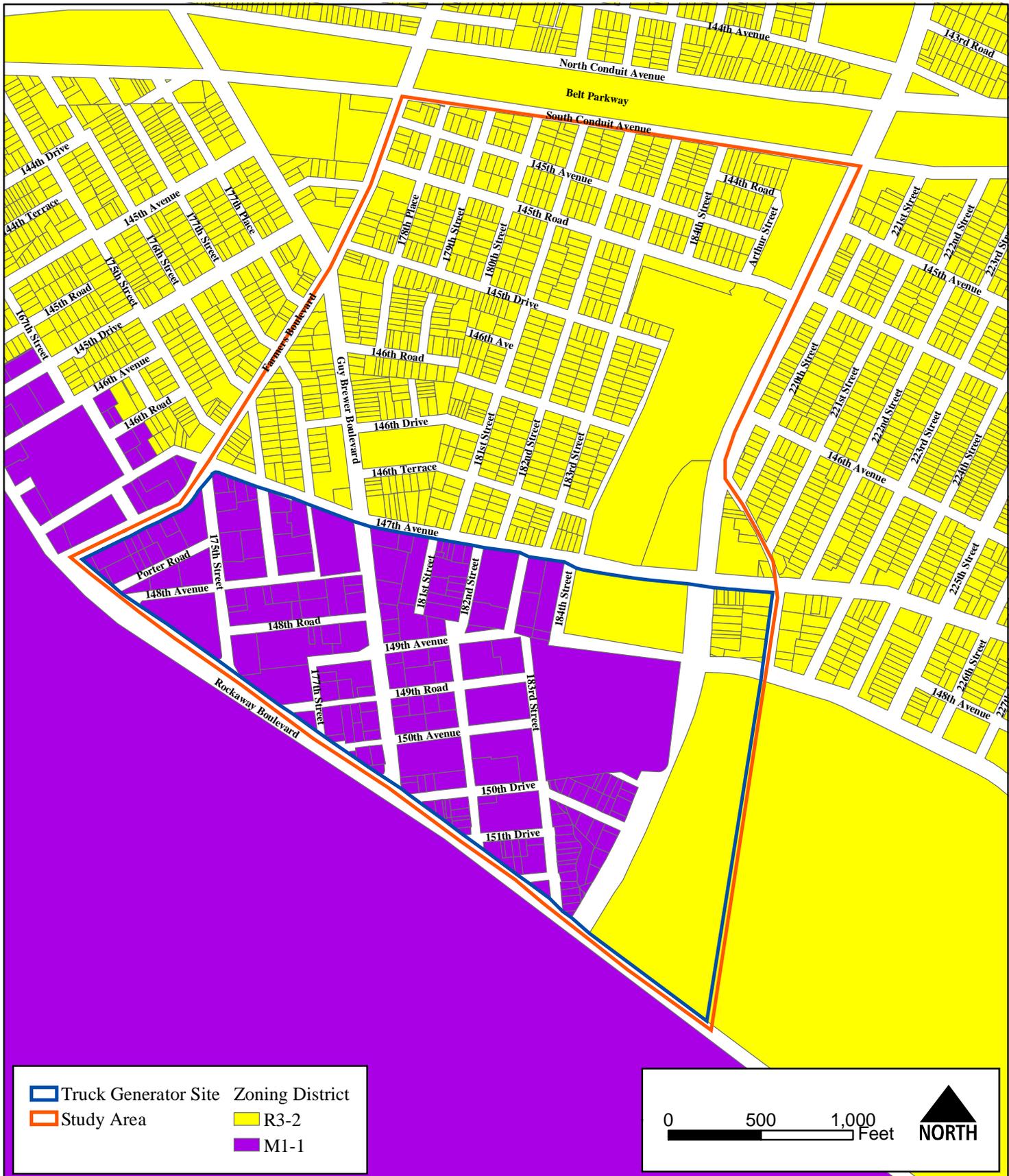


Figure 6-33
Zoning
Springfield Gardens / JFK - Queens

NYC Truck Route Management and Community Impact Reduction Study



The **Herbert Birch Early Childhood Center** is located on the corner of Farmers Boulevard and 145th Drive. This facility provides daycare to approximately 100 children. The north end of this facility facing South Conduit Avenue is located on a NYC truck route.

The **Springfield Garden Residence** is located on Guy Brewer Boulevard between 147th Avenue and 146th Drive. This is a NYC DHS contracted homeless facility with 82 family units. This residence does not front on a NYC truck route.

The **Saratoga Interfaith Family Inn** is located on Rockaway Boulevard between 175th and 177th streets. This facility provides approximately 255 units for homeless families, under NYC DHS jurisdiction. The south end of the residential complex at Rockaway Boulevard is a NYC designated truck route.

P.S. 251, the Early Childhood Management School, is located on Arthur Street between 144th and 145th roads. This NYC Public School accommodates approximately 420 students in grades K - 3. This school is not located on a NYC Local Truck Route.

I.S. 231, Magnetech 2000, is located on Springfield Boulevard between South Conduit Avenue and 145th Road. This NYC Public School teaches grades 6-8 with approximately 1,509 students. The north end of the school fronting on South Conduit Avenue is a designated NYC truck route.

The **Junior High School 231 Playground** is bound by Springfield Boulevard, 145th Road and Arthur Street. This 1-acre NYC Department of Parks and Recreation facility does not front on a NYC truck route.

Engine Company 311, Ladder Company 158 is located on the southwest corner of Springfield Boulevard and 145th Road. This firehouse is not located on a NYC truck route.

Access to Truck Routes from Site/Study Area

Rockaway Boulevard, which comprises the southern boundary of the Springfield Gardens study area, is a designated Through Truck Route. North Conduit and South Conduit Avenues are located at the northern boundary of the study area. There is access to N. Conduit and S. Conduit Avenues from three major roadways within the Springfield Gardens study area: Guy R. Brewer Boulevard, Farmers Boulevard, and Springfield Boulevard; however, none of these streets are truck routes in the study area. Springfield Boulevard is a designated Through Route north of Conduit Avenue while Guy R. Brewer and Farmers Boulevard are designated Local Truck Route, north of Conduit Avenue.

Critical Intersections

There are six intersections within the study area that were identified as critical intersections. These intersections include:

- Farmers Boulevard at Rockaway Boulevard
- Farmers Boulevard at 175th Street
- Farmers Boulevard at 147th Street
- Guy R. Brewer Boulevard at Rockaway Boulevard
- Guy R. Brewer Boulevard at 147th Street
- Rockaway Boulevard at Porter Road

Several of the listed intersections were chosen because they have direct access to Through or Local Truck Routes from significant truck generating sites. Three of the chosen intersections are along Rockaway Boulevard, which is listed as a Through Truck Route. Rockaway Boulevard is also one of the major access roadways to JFK. One intersection, Guy Brewer Boulevard at 147th Avenue, does not have direct access to a Through or Local Truck Route. However, Guy R. Brewer Boulevard is a Local Truck Route north of the Belt Parkway and provides access to N. Conduit Avenue and S. Conduit Avenue.

Traffic Operations

Traffic counts were conducted at the selected six intersections to determine the amount of truck traffic at the intersection and the level of service (LOS) at each intersection. The morning peak hours were determined to be the time of day where the most significant amount of truck traffic is likely to occur. Traffic counts were conducted at the six intersections on Wednesday, June 30, 2004 from 6:00 AM to 10:30 AM. Maps of the AM peak hour truck traffic volumes at the six critical intersections can be found in Figures 6-34 and Figure 6-35.

The flow of truck traffic within and around the Springfield Gardens study area suggest that truckers are using Rockaway Boulevard to access Springfield Gardens from points to the east and west of the study area, while truckers are using Farmers Boulevard and Guy Brewer Boulevard from points to the north of the study area. Guy R. Brewer Boulevard runs through residential development north of 147th Avenue. The truck traffic counts as well as field observations indicate a large number of trucks using 147th Avenue to access Springfield Gardens.

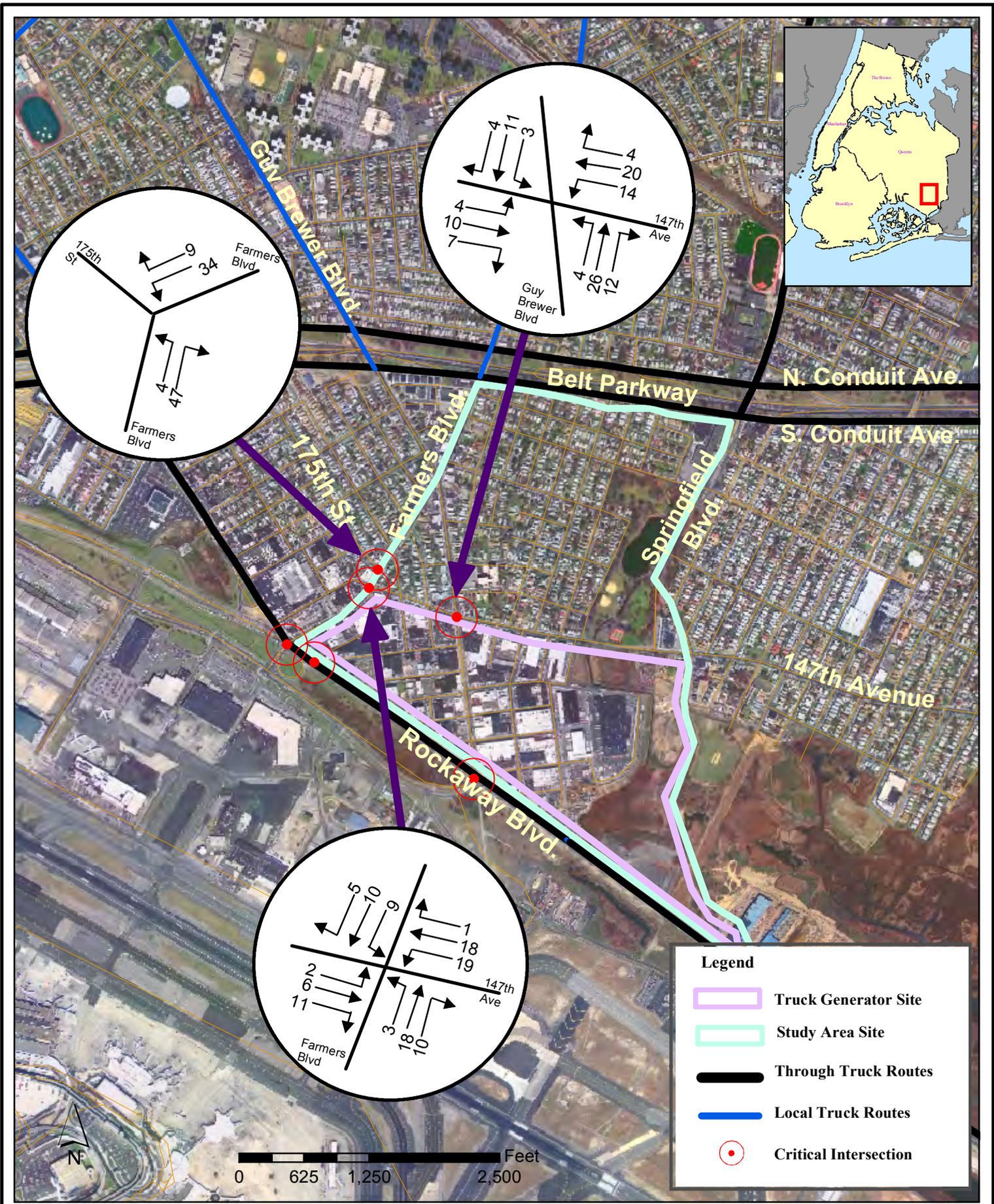


Figure 6-34
AM Peak Hour Truck Traffic Counts
Springfield Gardens - Queens

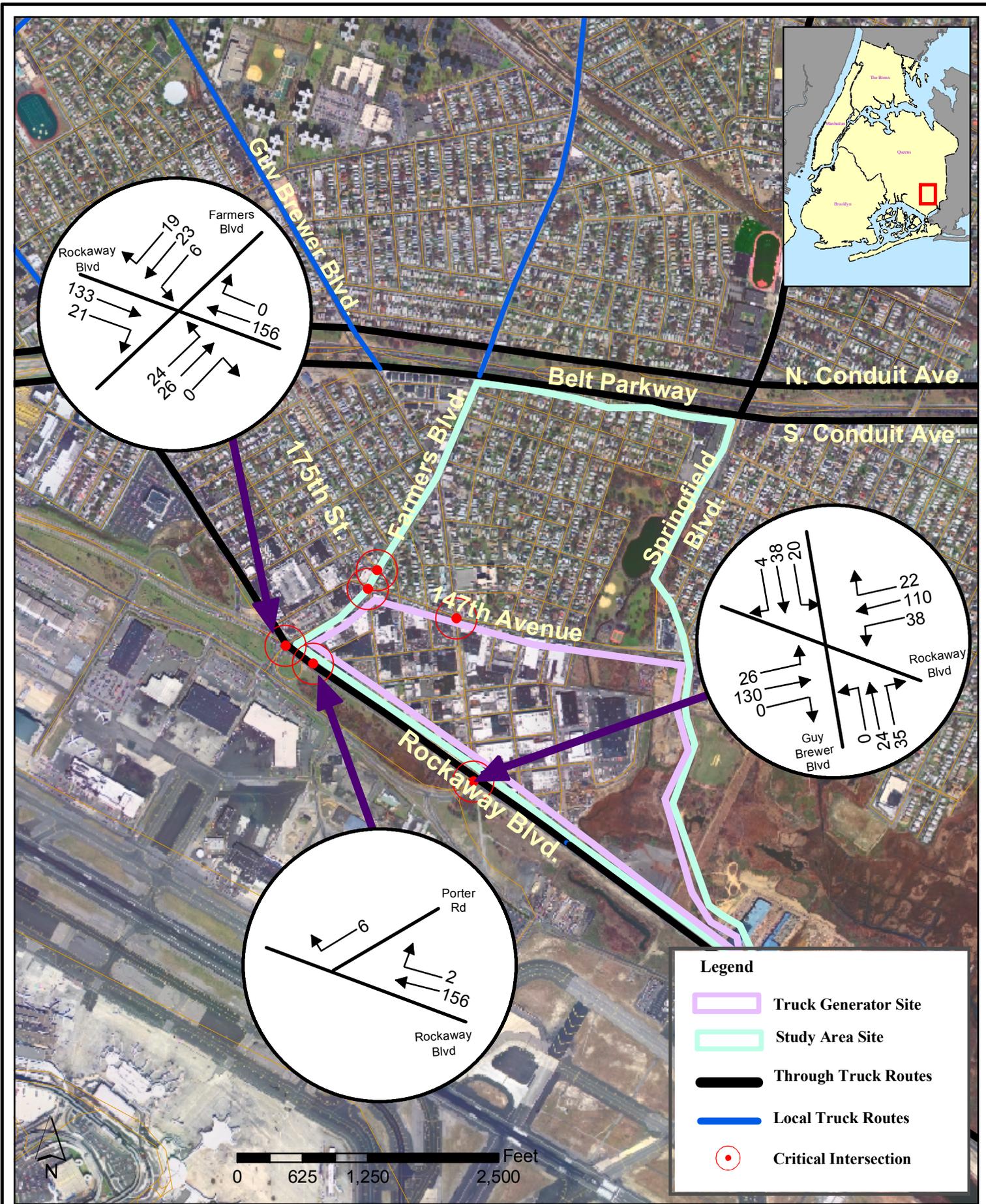


Figure 6-35
AM Peak Hour Truck Traffic Counts
Springfield Gardens - Queens

The results of the LOS analyses for the six critical intersections within the Springfield Gardens Study Area are shown in Table 6-5. A description of the LOS analyses and the movement of truck traffic within each intersection are discussed below:

**Table 6-5: Intersection Operational Levels of Service 2004
 Existing Conditions Springfield Gardens – Queens**

Intersection	Approach	Lane Group	AM Peak Hour	
			Delay	LOS
Farmers Blvd. @ Rockaway Blvd.	EB	T	15.7	B
	WB	T	17.6	B
	NB	L	75.4	E
	NB	LTR	33.3	C
	SB	L	34.7	C
	SB	TR	42.3	D
Intersection			20.6	C
Farmers Blvd. @ 175 th Street	NB	LT	8.7	A
	SB	TR	-	-
	Intersection			-
Farmers Blvd. @ 147 th Street	EB	LTR	15.9	B
	WB	LTR	21.4	C
	NB	LTR	9.3	A
	SB	LTR	18.0	B
	Intersection			16.5
Guy Brewer Blvd. @ Rockaway Blvd.	EB	L	67.5	E
	EB	T	45.8	D
	WB	L	20.1	C
	WB	TR	72.6	E
	NB	L	30.7	C
	NB	T	41.3	D
	SB	L	51.7	D
	SB	TR	34.9	C
Intersection			45.2	D
Guy Brewer Blvd. @ 147 th Street	EB	LTR	16.6	B
	WB	LTR	21.3	C
	NB	LTR	9.4	A
	SB	LTR	10.4	B
	Intersection			14.4
Rockaway Blvd. @ Porter Road	WB	TR	-	-
	SB	R	28.5	D
	Intersection			-

Farmers Boulevard at Rockaway Boulevard

The intersection of Farmers Boulevard and Rockaway Boulevard is a signalized intersection, with dedicated left turn lanes along Farmers Boulevard and a left-turn lead at the northbound



Looking west, truck traffic at the intersection of Rockaway Boulevard and Farmers Boulevard

approach. Rockaway Boulevard has four traffic lanes in both the eastbound and westbound direction, while Farmers Boulevard is a three-lane approach northbound and a two-lane approach southbound. A channelized right-turn movement is located on Rockaway Boulevard eastbound. The peak hour of traffic at the intersection of Farmers Boulevard and Rockaway Boulevard was identified to be between 8:00 AM and 9:00 AM. The traffic counts indicate that over 10% of the traffic along Farmers Boulevard is truck traffic, while 7% of the traffic along Rockaway Boulevard is truck traffic. Over one hundred (100) trucks pass through the intersection on Rockaway Boulevard during the AM peak hour.

The operations analysis of the intersection indicates that the overall LOS for the intersection of Farmers Boulevard and Rockaway Boulevard is LOS C, which indicates that the intersection is operating efficiently. The only movement with a deteriorating LOS is the left turn movement from Farmers Boulevard northbound to Rockaway Boulevard westbound, which operates at LOS E. This movement also contains the highest percentage of trucks within the intersection, at 22%. Therefore, truckers exiting JFK facilities at Farmers Boulevard to access Rockaway Boulevard experience some delay. There are minimal delays for truckers along Rockaway Boulevard while there is some delay for truckers accessing Rockaway Boulevard from Farmers Boulevard southbound.

Farmers Boulevard at 175th Street

The intersection of Farmers Boulevard and 175th Street is a non-signalized intersection that is located just beyond the identified truck generator site. 175th Street is a one-way facility with no access to Farmers Boulevard. Traffic counts were conducted to identify trips traversing through the intersection on Farmers Boulevard and turning into 175th Street from Farmers Boulevard. Over 12% of the traffic counted along Farmers Boulevard was identified as truck traffic. 6% of the traffic turning onto 175th Street was identified as truck traffic. The peak hour of traffic was identified between 8:15 AM and 9:15 AM.



Truck traffic on Farmers Boulevard, north of intersection with

The northbound left-turn approach from Farmers Boulevard to 175th Street operates at LOS A. Since there is no traffic exiting 175th Street onto Farmers Boulevard there is minimal queuing at the intersection.

Farmers Boulevard at 147th Street

The intersection of Farmers Boulevard and 147th Street is a four-way signalized intersection, with one lane at each approach. The AM peak hour of traffic at the intersection is from 8:00 AM to 9:00 AM. A significant amount of truck traffic was counted at the intersection of Farmers Boulevard and 147th Street. 15% of the through traffic on 147th Street is truck traffic. Truck traffic accounted for over 20% of right-turn movements from 147th Street eastbound to Farmers Boulevard southbound, while 17% of left-turn movements from 147th Street westbound to Farmers Boulevard southbound was truck traffic. A significant amount of truck traffic was counted at the Farmers Boulevard northbound approach. Of the total amount of traffic at each approach, truck traffic accounted for 23% of the left-turn movements onto 147th, 15% of the through movements on Farmers Boulevard northbound and 13% of right-turn movements onto 147th Street eastbound.



Truck at 147th Avenue westbound approach

The overall LOS for the intersection of Farmers Boulevard and 147th Street is LOS B, which indicates that the intersection operations are in good condition. The 147th Street westbound approach was analyzed as LOS C, which is the lowest grade of the four approaches at the intersection. The results of the operations analyzes coupled with the high percentage of truck traffic indicates that truck traffic at the intersection of Farmers Boulevard and 147th Street mitigates through the intersection efficiently.

Guy Brewer Boulevard at Rockaway Boulevard

The intersection of Guy Brewer Boulevard and Rockaway Boulevard is a three-phase signalized intersection. Extra lead-time is given to left-turn movements at the Rockaway Boulevard approaches. Rockaway Boulevard is a four-lane (three through, one left) approach in the eastbound direction and a five-lane (three through, two left) approach in the westbound direction. Guy Brewer Boulevard is a two-lane (one left, one through) approach with a channelized right in the northbound in the southbound direction. 150th Road also intersects at the intersection of Guy Brewer Boulevard and Rockaway Boulevard. 150th Road is a one-way roadway with traffic exiting onto Rockaway Boulevard westbound. 150th Road is not part of the traffic signal operations of the intersection of Guy Brewer Boulevard and Rockaway Boulevard.



Traffic backup along Guy Brewer Boulevard north of Rockaway

An analysis of the traffic counts conducted at the intersection indicates the morning peak hour occurs between 8:15 AM and 9:15 AM. The most significant amounts of truck traffic occur at several of the turning

movements. Over 30% of the right-turn movements from Rockaway Boulevard westbound to Guy Brewer Boulevard northbound are trucks. Over 30% of the right-turn movements from Guy Brewer Boulevard northbound to Rockaway Boulevard eastbound are trucks. Furthermore, 35% of the through traffic on Guy Brewer Boulevard southbound is classified as trucks, so truckers are using Guy Brewer Boulevard to access the JFK International Airport facilities. Over one hundred (100) trucks pass through the intersection on Rockaway Boulevard during the AM peak hour.

The overall LOS for the intersection of Guy Brewer Boulevard and Rockaway Boulevard is LOS D, which indicates near capacity conditions. The turning movement with the longest delay is the left-turn movement from Rockaway Boulevard eastbound to Guy Brewer Boulevard southbound, which was analyzed as LOS E. 12% of the traffic at this approach is truck traffic so there is a large backup of truck traffic accessing Guy Brewer Boulevard northbound from Rockaway Boulevard eastbound. There is also a high queuing of traffic at the Rockaway Boulevard westbound approaches. There is not a significant amount of right-turn movements at this approach. However, as mentioned previously, over 30% of those right-turn movements were trucks. This indicates a significant queuing of truck traffic wanting to access Guy Brewer Boulevard from both the eastbound and westbound approaches. The rest of the approaches at the intersection operate at LOS C and LOS D, which indicates fair to poor conditions.

Guy Brewer Boulevard at 147th Street

The intersection of Guy Brewer Boulevard and 147th Street is a four-way signalized intersection, with one lane at each approach. The AM peak hour of traffic at the intersection is from 8:15 AM to 9:15 AM. A significant amount of truck traffic was counted at the intersection of Guy Brewer Boulevard and 147th Street. Fifteen percent of the through traffic on 147th Street is truck traffic, while truck traffic accounted for 17% of the through traffic on Guy Brewer Boulevard northbound. 50% of the left-turn movements from Guy Brewer Boulevard northbound to 147th Street westbound were trucks while 33% of the left-turn movements from 147th Street eastbound to Guy Brewer Boulevard northbound were trucks. The high percentage of trucks at the approaches indicates Guy Brewer Boulevard is a significant roadway for truck traffic.



Truck traffic on Guy Brewer Boulevard south of 147th Avenue

The overall LOS for the intersection of Farmers Boulevard and 147th Street is LOS B, which indicates that the intersection operations are in good condition. The 147th Street westbound approach was analyzed as LOS C, which is the lowest grade of the four approaches at the intersection. The results of the operations analyzes coupled with the high percentage of truck traffic indicates that truck traffic at the intersection of Guy Brewer Boulevard and 147th Street mitigates through the intersection efficiently.

Rockaway Boulevard at Porter Road



Porter Road looking northbound from Rockaway Boulevard

The intersection of Rockaway Boulevard and Porter Road is un-signalized. Access to and from Porter Road from Rockaway Boulevard westbound only. Analysis of the traffic counts indicate the morning peak hour of traffic is between 8:15 AM and 9:15 AM. The most significant amount of truck traffic occurs on Porter Road making the right turn onto Rockaway Boulevard. The traffic counts conducted indicate over 20% of the right-turn movements onto Rockaway Boulevard westbound are trucks. 8% of the right-turn movements onto Porter Road from Rockaway Boulevard are trucks, while 7% of the through movements on Rockaway

Boulevard eastbound are trucks. The intersection of Rockaway Boulevard and Porter Road operates at LOS D. The analysis indicates a queuing of traffic on Porter Road as a result of heavy traffic volumes on Rockaway Boulevard westbound. There is a minimal volume of traffic exiting Porter Road onto Rockaway Boulevard. However, since over 20% of the right-turn movements from Porter Road to Rockaway Boulevard are trucks, truckers are using Porter Road to access Rockaway Boulevard westbound and those truckers are experiencing some delay at the stop-controlled intersection.

Roadway Network Capacity/Geometrics/Other Observations

The designated truck route roads approaching the Springfield Gardens truck generator site are sufficiently wide to accommodate truck traffic. Within the site, roads are wide enough to accommodate trucks; however, on the numbered streets, curbside parking by cars narrows the travel-way, as do trucks that are double-parked for loading and unloading cargo. The same circumstances occur on Porter Road. Most of the facilities do not have the space for a tractor-trailer to load or unload off the streets. Trucks have been observed parking along 147th Avenue, blocking the flow of traffic.

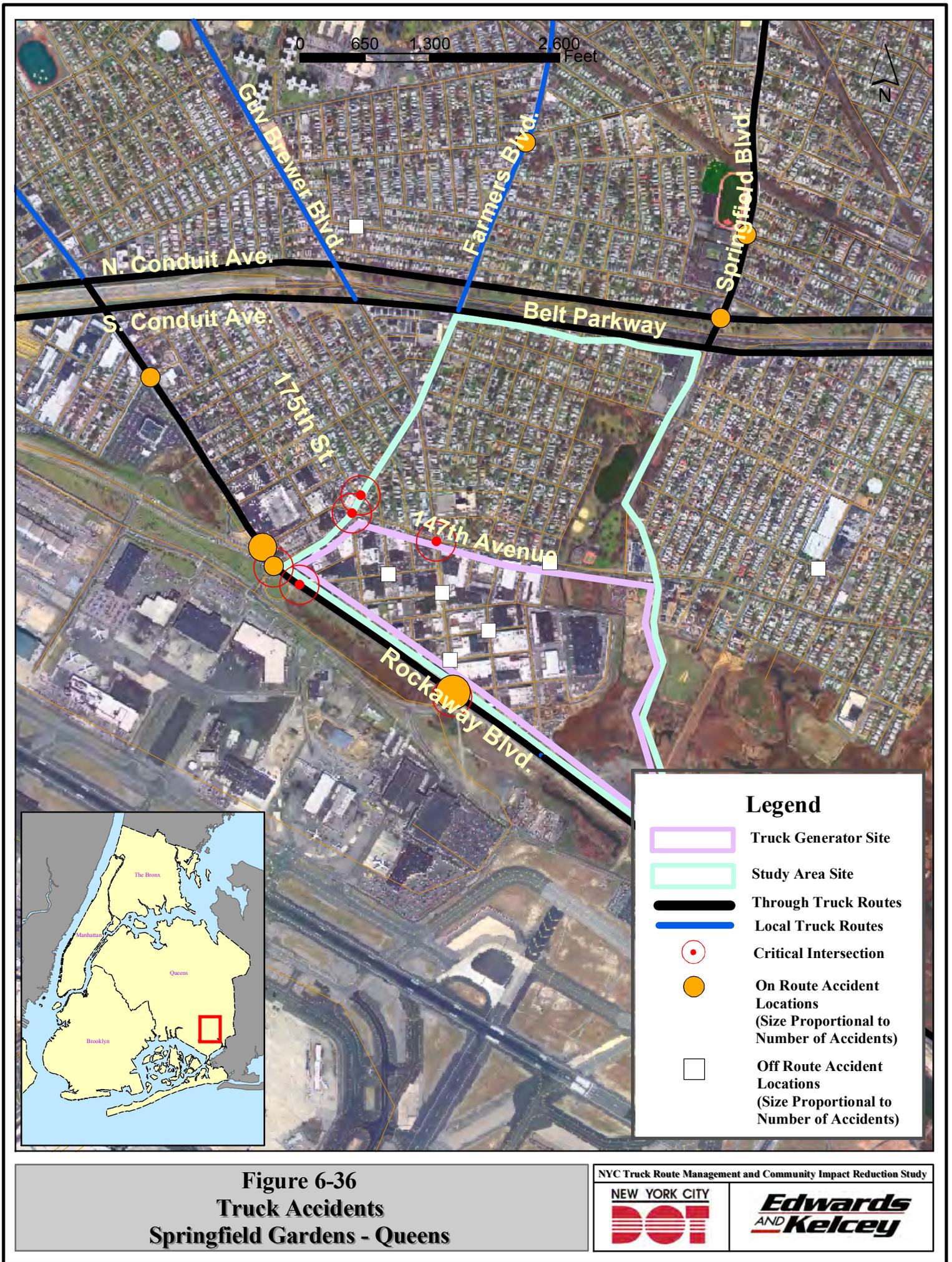
Public comments regarding truck traffic on Farmers Boulevard were made at public meetings, conducted in the Summer of 2003, regarding truck traffic, public safety, and other concerns. The comments received concerned truck traffic passing through residential neighborhoods on Farmers Boulevard. Farmers Boulevard is a designated Local Truck Route, north of N. Conduit Avenue, but not designated as a Local Truck Route through the Springfield Gardens study area.

Accidents

A map of the truck-related accident locations, within and around the Springfield Gardens study area, is shown in Figure 6-36. Accident data were accumulated for a two-month period, between October 2004 and November 2004, to determine the amount of truck-related accidents that have occurred within the City of New York and the location of the accidents. For the Springfield Gardens site, almost all the truck accident location sites are at the Springfield Gardens generator site or along truck routes leading to the site. The highest number of truck-related accidents occurred at the intersection of Rockaway Boulevard and Guy Brewer Boulevard, where three accidents were recorded. There were also several truck-related

accidents recorded at the intersection of Rockaway Boulevard and Farmers Boulevard. Four off-route truck-related accidents were recorded within the Springfield Gardens truck generator site, so the truck traffic generated by facilities within the Springfield Gardens truck generator site are increasing the likelihood of truck-related incidents. There were no other truck-related accidents recorded in the study area. However, accidents were recorded at the intersection of Springfield Boulevard and N. Conduit Avenue, which is a regional Through Truck Route.

Accident data was accumulated for a three-year period, between 1999 and 2001, to determine the amount of truck-related accidents within the City of New York and rank the top 115 locations within the city based on the total amount of truck related accidents. Between 1999 and 2001, the intersection of Rockaway Boulevard and Guy Brewer Boulevard was ranked #66 out of the top-115 intersections in the City of New York for the total amount of truck-related accidents within the city.



0 650 1,300 2,600 Feet



Legend

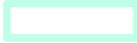
-  Truck Generator Site
-  Study Area Site
-  Through Truck Routes
-  Local Truck Routes
-  Critical Intersection
-  On Route Accident Locations
(Size Proportional to Number of Accidents)
-  Off Route Accident Locations
(Size Proportional to Number of Accidents)



Figure 6-36
Truck Accidents
Springfield Gardens - Queens

Recommendations for Springfield Gardens

Truck Route signs should be posted on the roadways bounding the study area (147th Avenue, Farmers Boulevard and Springfield Boulevard) directing trucks to Rockaway Boulevard. Although Guy Brewer Boulevard is not a designated Local Truck Route, there is signage at the intersection of Farmers Boulevard and Guy Brewer Boulevard that guides truckers to Rockaway Boulevard, which is a Through Truck Route. These segments of Farmers Boulevard and Springfield Boulevard pass through dense residential development. It is recommended that trucks be re-routed to Rockaway Boulevard to access JFK International Airport. Signs should be posted on South Conduit Avenue prohibiting trucks from making right turns at Farmers Boulevard and Springfield Boulevard. Truck prohibition signs (NO TRUCKS) should also be at the southwest corners of the intersections of South Conduit Avenue at Farmers Boulevard and at Springfield Boulevard posted to keep trucks out of the residential neighborhood.

Truck route designation signage should be placed at the following intersections:

- Rockaway Boulevard at N. Conduit Avenue
- Rockaway Boulevard at S. Conduit Avenue
- Farmers Boulevard and N. Conduit Avenue
- Springfield Avenue and N. Conduit Avenue
- N. Conduit Avenue at Farmers Boulevard

Two truck route designation signs should be placed at each approach, one sign before the approach and one sign beyond the approach. Any current truck route designation signage should be replaced with new signage for better visibility. The truck route signage should also indicate Local Truck Route or Through Truck Route.

i. Recommendations

1. Prohibit trucks from using the following truck route streets from 10 PM to 6 AM

<u>Street</u>	<u>Type</u>	<u>Limits</u>
Farmers Boulevard	Local	168 th Street to Merrick Boulevard
Dunkirk Street	Local	East and west intersections with Farmers Blvd
Parsons Boulevard	Local	Main Street to Union Turnpike
Main Street	Local	Union Turnpike to the Long Island Expwy
Ditmars Boulevard	Local	81 st Street to 23 rd Street

These streets are located in areas with parallel Local Truck Route streets that can accommodate additional anticipated truck activity or they are along routes that are primarily residential in nature and contain an insignificant number of businesses along them to be served from the hours of 10:00 PM to 6:00 AM.

2. Install turn restriction signs for trucks at designated locations where trucks are avoiding truck route streets.

Place “No Right Turn Except For Local Delivery” signs for trucks on the southwest corners of South Conduit Avenue at Farmers Boulevard, Guy Brewer Boulevard and Springfield Boulevard.

3. Possible investigation for development of traffic mitigation measures, focusing on truck movements at locations where there have been 15 or more truck accidents over a thirty-six month time period. Several of these locations correspond to intersections where NYCDOT has already undertaken measures to improve conditions for all street users.

The following intersections met this criterion during a thirty-six month period (1999 to 2001):

<u>Location</u>	<u>Truck Accidents</u>
Hoyt Ave. and 31 st St.	28
College Point Blvd. and Long Island Expwy.	20
Queens Blvd. and Thompson Ave.	18
Grand Ave. and 69 th St.	16
Maurice Ave. and Long Island Expwy.	15
Queens Blvd. and Van Dam St.	15

Possible short-term improvements include establishing wide-turn zones, modifying traffic signal timing, and providing additional signage to address localized intersection issues.

4. In order to improve the vitality of Air Cargo in New York City, provide direct access to John F. Kennedy Airport for 53 foot tractor trailers up to 102 inches wide and expand portions of the Interstate in Queens to accommodate these vehicles.

The Air Cargo industry is dependent upon 53 foot trailers to move a large amount of their goods. Currently, restrictions prohibit these trucks from legally accessing the airport. With improvements made over the past decade, as well as the completion of the AirTrain project, it is feasible to allow these types of vehicles direct access to the Airport via a direct connection from the Van Wyck. As noted above, 53 foot trailers would continue to be prohibited on the local

arterial network and appropriate enforcement would be necessary. The following portions of the Interstate in Queens should be designated to permit these trips:

- Long Island Expressway (I-495) from the Clearview Expressway to Van Wyck Expressway (I-678)
- Van Wyck Expressway (I-678) from the Whitestone Expressway to Nassau Expressway
- Whitestone Expressway (I-678) from the Bronx-Whitestone Bridge to Van Wyck Expressway
- Long Island Expressway (I-495) from the Van Wyck Expressway (I-678) to Nassau County Line

5. Maspeth

As part of the Maspeth Industrial area investigation, it is recommended that improvements be made at the intersection of Maspeth Avenue and Rust Street. Potential improvements include the installation of a traffic signal, repaving of the intersection area including street maintenance along Maspeth Avenue and striping of the intersection approaches and removal of parking on all approaches within 100 feet of the intersection. A warrant study should also be performed for installing a traffic signal to relieve the queuing of truck traffic on Rust Street.

In addition, truck route designation signage should be placed at the following intersections:

- Rust Street at Maspeth Avenue
- Rust Street at Grand Avenue
- Grand Avenue at 54th Street
- Grand Avenue at 55th Street

Two truck route designation signs should be placed at each approach, one sign before the approach and one sign beyond the approach. There is currently truck route designation signage at the intersection of Rust Street and 49th Street. However, the current signage should be replaced with new signage for better visibility. The truck route signage should also indicate Local Truck Route or Through Truck Route.

In addition, it is recommended that the DOT pursue the Maspeth Bypass Proposal in conjunction with the following recommendations and short-term measures:

Anticipated Mitigation Measures/Improvements

- The traffic signal phases should be retimed at the intersection of Rust Street and Grand Avenue.
- The existing concrete islands at the intersection of Maurice Avenue, 58th Street, 56th Terrace & Maspeth Avenue function as more of an obstacle than a control for traffic and make it difficult for larger vehicles to travel through. Existing geometries and roadway design throughout the intersection are problematic and unsafe, especially for larger vehicles. To accommodate increased truck traffic especially larger vehicles, this intersection should be examined for reconfiguration and/or reconstruction.
- Several locations may warrant signal studies or installation of stop controls. There are numerous uncontrolled intersections with heavy truck traffic and unusual turning movements. The intersections include: Maurice Avenue/58th Street/56th Terrace, 57th

Place/Rust Street and Maspeth Avenue/Rust Street. The Maspeth Avenue/Rust Street location is critical because it is adjacent to an active rail crossing with substantial traffic, as well as numerous illegal turning movements by trucks through the intersection. As part of the investigation and anticipated increase in truck traffic, it may be necessary to modify/install stop controls along the “Bypass” route.

- Geometric improvements at the intersection of Rust Street and Grand Avenue. This intersection is plagued by poor sight lines, street geometry and offset roadways that make turns difficult for southbound commercial vehicles. There is a railroad trestle directly parallel to Rust Street that limits sight distances. In addition, tight geometry forces vehicles to swing into other travel lanes. At the very least, stop bars would be relocated to eliminate the intrusion of turning vehicles into opposing lanes.
- Signal timing modifications at various intersections throughout the area. With increased truck traffic, signal timings may require adjustments to allow for truck turning movements at numerous intersections, most notably at the Rust Street/Grand Avenue Intersection. In 2003, the Department adjusted the signal timing at Grand Avenue/Long Island Expressway, and 69th Street to improve traffic flow through the intersection and improved vehicular and pedestrian safety.
- Geometric and intersection improvements at the intersection of Grand Avenue, Flushing Avenue, and Maspeth Avenue. At the convergence of the two truck routes, there is heavy truck traffic and limited storage space for larger vehicles. Possible improvements include modification to existing traffic islands, striping, and other geometries. Eastbound truck traffic is most affected as it must merge onto Flushing Avenue and back onto Grand Avenue. It should be noted that the Department’s Safe Route’s to Schools” study released in 2006 included improvements at this intersection in regard to overall improvements proposed for the Saint Stanislaus Kostka School.
- Improved signage and truck route information. With a truck restriction on Grand Street, additional signage would be necessary along several corridors and approaches to the street. Existing signage “NO TRUCKS EXCEPT LOCAL DELIVERIES” may not be adequate to deter truck traffic. Additional measures such as delineators and signage on islands would need to be improved on various portions of the bypass route.

It is recommended that DOT pursue a more detailed engineering analysis for the above recommendations and develop a plan for mitigating these concerns including where capital project plans are necessary. It is recommended that NYCDOT implement the following short-term measures:

- Install wayfinding and directional signage at Rust Street and Grand Avenue advising trucks of the Rust Street/58th Street route to the Long Island Expressway as well as distinct advisory signs directing truck traffic away from the residential/community core of Maspeth along Grand Avenue. These signs would direct trucks to the less populated route to access the highways and points north. NYCDOT and NYCEDC are currently working on a similar program in Hunts Point.
- Work with NYCEDC and industrial parks on educating drivers on routing alternatives in the area. NYCEDC would assist NYCDOT in the implementation of the efforts described in *Technical Memorandum 4, Education Program*, as it relates to the City’s industrial parks.

- Improve striping and roadway marking along existing truck routes.
- Ensure NYPD enforcement of off-truck route complaints.

Finally, in consideration of the Maspeth Bypass and existing truck movements, it is recommended that the Local/Through Route differences be addressed to allow for legal access from Maspeth for westbound vehicles traveling to the BQE for destinations outside of Brooklyn.

6. College Point

The designation of 28th Avenue between College Point Boulevard and Linden Place, as a Local Truck Route would help to relieve truck traffic on 20th Avenue. 28th Avenue passes through industrial and non-residential land-uses through this segment. Another possible Local Truck Route designation is 130th Street/Ulmer Street, between 20th Avenue and 28th Avenue. Designating 130th Street/Ulmer Street will help to relieve truck traffic on College Point Boulevard and also passes through industrial and non-residential land uses. Linden Place, between Whitestone Expressway Service Road West and 28th Avenue should also be designated as a Local Truck Route, to connect Linden Place and Whitestone Expressway Service Road West, which are Through Truck Routes, to the recommended Local Truck Routes.

The intersection of Linden Place and 28th Avenue/New York Times Printing Plant Gate should be reconfigured to eliminate the stop-controlled approach at 28th Avenue eastbound. An actuated traffic signal, with increased green time for the New York Times Printing Plant Gate during the peak periods, may be required to relieve backup of truck traffic exiting the printing plant at this location.

Signage directing truckers not to use 14th Avenue along this segment is recommended at the intersection of 14th Avenue and College Point Boulevard and 14th Avenue at Whitestone Expressway Service Road West (“NO TRUCKS EXCEPT LOCAL DELIVERIES”).

Truck route designation signage should be placed at the following intersections:

- Linden Place at Whitestone Expressway Service Road (East and West)
- Linden Place at 28th Avenue (with designation of Local Truck Route)
- Linden Place at Ulmer Street (with designation of Local Truck Route)
- Linden Place at College Point Boulevard
- College Point Boulevard at 20th Avenue
- 20th Avenue at 130th Street (with designation of Local Truck Route)
- 20th Avenue at Whitestone Expressway Service Road (East and West)

Two truck route designation signs should be placed at each approach, one sign before the approach and one sign beyond the approach. There is currently minimal signage at several of these intersections. However, the current signage should be replaced with new signage for better visibility. The truck route signage should also indicate Local Truck Route or Through Truck Route.

It is also recommended that the NYCDOT study the impact of the truck restrictions imposed at the Bronx-Whitestone and Throgs Neck bridges on truck routing in northern Queens and the Bronx.

Based on observations a review of local complaints, the following measures are proposed:

- Posting of Local Truck Route (LTR) signs at the following intersections and approaches:
 - 14th Avenue and Whitestone Expressway Southbound Service Road
LTR with through and left – southbound approach
 - 14th Avenue and Whitestone Expressway Northbound Service Road
LTR with through and right arrows – northbound approach
LTR with through, left and right arrows – westbound approach
LTR with through and right arrows – eastbound approach
 - 20th Avenue and Whitestone Expressway Southbound Service Road
LTR with through, left and right arrows – southbound and eastbound approaches
LTR with through and left arrow – westbound approach
 - 20th Avenue and 127th Street
LTR with through arrow – eastbound and westbound approaches
 - 20th Avenue and College Point Boulevard
LTR with left and right arrows on westbound approach
LTR with through and left arrows on southbound approach
LTR with through and right arrows on northbound approach
 - 20th Avenue and Whitestone Expressway Northbound Service Road
LTR with left and right arrows – eastbound approach
LTR with through and left arrows - northbound approach
 - College Point Boulevard and 15th Avenue
LTR with through arrow – northbound and southbound approaches
LTR with right arrow – eastbound approach
LTR with left and right arrows – westbound approach
 - College Point Boulevard and 14th Road
LTR with left arrow – northbound approach
 - Linden Place and Whitestone Expressway Southbound Service Road
LTR with left arrow – westbound approach
LTR with through and right arrows – eastbound approach
LTR with through arrow – southbound approach
 - Linden Place and Whitestone Expressway Northbound Service Road
LTR with left and through arrow – northbound approach
LTR with left and through arrows – eastbound approach
LTR with through and right arrow – westbound approach

- Post “No Trucks Except Local Deliveries” (NTELD) signs at the following intersections
 - 14th Avenue and Whitestone Expressway Southbound Service Road
NTELD (with through arrow) – westbound approach
 - 20th Avenue and Whitestone Expressway Northbound Service Road
Oversized NTELD with right arrow – northbound approach
 - 15th Avenue and College Point Boulevard
NTELD (with through arrow) – eastbound approach
 - College Point Boulevard and 14th Road
NTELD – north bound approach
 - Linden Place with 28th Avenue
NTELD – northbound approach

- Geometric Improvements at the intersection of 20th Avenue and 127th Street

- The west leg of the intersection should be widened to accommodate eastbound trucks and to create a more noticeable continuation of the Local Truck Route to the west of 127th Street.
- Geometric Improvements at the intersection of 20th Avenue and College Point Boulevard. The stop bars should be pulled back by 10-20 feet on the north, south and east approaches to allow tractor trailers to turn without encroaching into opposing lanes.
- Conduct public education program with local businesses and truck companies. Local businesses need to be aware of the Local Truck Route network, City traffic rules and the central source where information can be obtained and where to go to get questions answered.

7. Springfield Gardens

Truck route signs should be posted on the roadways bounding the study area (147th Avenue, Farmers Boulevard and Springfield Boulevard) directing trucks to Rockaway Boulevard. Although Guy Brewer Boulevard is not a designated Local Truck Route, there is signage at the intersection of Farmers Boulevard and Guy Brewer Boulevard that guides truckers to Rockaway Boulevard, which is a Through Truck Route. These segments of Farmers Boulevard and Springfield Boulevard pass through dense residential development. It is recommended that trucks be re-routed to Rockaway Boulevard to access JFK International Airport. Signs should be posted on South Conduit Avenue prohibiting trucks from making right turns at Farmers Boulevard and Springfield Boulevard. Truck prohibition signs (NO TRUCKS) should also be at the southwest corners of the intersections of South Conduit Avenue at Farmers Boulevard and at Springfield Boulevard posted to keep trucks out of the residential neighborhood.

Truck route designation signage should be placed at the following intersections:

- Rockaway Boulevard at N. Conduit Avenue
- Rockaway Boulevard at S. Conduit Avenue
- Farmers Boulevard and N. Conduit Avenue
- Springfield Boulevard and N. Conduit Avenue
- N. Conduit Avenue at Farmers Boulevard

Two truck route designation signs should be placed at each approach, one sign before the approach and one sign beyond the approach. Any current truck route designation signage should be replaced with new signage for better visibility. The truck route signage should also indicate Local Truck Route or Through Truck Route.

The southwest corners of the intersections of South Conduit Avenue at Farmers Boulevard and at Springfield Boulevard should be posted to keep trucks out of the residential neighborhood.

The following measures are also proposed to address truck issues in the area:

- Posting of new/appropriate LOCAL (LTR) and THRU (TTR) Truck Route signs at the following intersections and approaches:
 - South Conduit Avenue and Rockaway Boulevard
TTR with through and left arrows –southbound approach

- TTR with through and right arrows - northbound approach
 - TTR with left, through and right arrows – eastbound approach
 - North Conduit Avenue and Rockaway Boulevard
 - TTR with through and right arrows –southbound approach
 - LTR with through arrow and TTR with left arrow - northbound approach
 - TTR with left and through arrow and LTR with right arrow – westbound approach
 - South Conduit Avenue and Farmers Boulevard
 - TTR with left arrow – southbound approach
 - LTR with through arrow and TTR with right arrow - northbound approach
 - TTR with through arrow and LTR with left arrow – eastbound approach
 - North Conduit Avenue and Farmers Boulevard
 - TTR with right and straight arrows – southbound approach
 - LTR with through arrow and TTR with left arrow - northbound approach
 - TTR with through arrow and LTR with right and left arrow – westbound approach
 - South Conduit Avenue and 175th Street
 - LTR with through arrow – eastbound approach
 - South Conduit Avenue and Guy R. Brewer Boulevard
 - LTR with left arrow and TTR with through arrow - eastbound approach
 - TTR with left arrow - southbound approach
 - LTR with through arrow and TTR with right arrow - northbound approach
 - North Conduit Avenue and Guy R. Brewer Boulevard
 - LTR with left arrow and TTR with through arrow - westbound approach
 - LTR with through arrow TTR with right arrow - southbound approach
 - TTR with left arrow and LTR with through arrow - northbound approach
 - Rockaway Boulevard and Guy R. Brewer Boulevard
 - TTR with through arrow – eastbound and westbound approaches
 - TTR with left and right arrows – northbound and southbound approaches
 - Farmers Boulevard/Nassau Expressway/Rockaway Boulevard
 - TTR for all approaches to intersection
- Post “No Trucks Except Local Deliveries” signs at the following intersections
 - South Conduit Avenue and 175th Street
 - Rockaway Boulevard and Farmers Boulevard
 - Rockaway Avenue and Farmers Boulevard
 - South Conduit Avenue and Farmers Boulevard
 - South Conduit Avenue and Guy Brewer Boulevard
 - In addition, the Department of Transportation, through the Interagency Airport Access Working Group has made several improvements to truck signage and access in the Springfield Gardens Area. This includes the replacement and posting of truck signage in the greater Springfield Gardens and Ozone Park neighborhoods.
 - It is recommended the Department evaluate opportunities for improved north/south connectivity to Kennedy Airport and Air Cargo facilities by investigating the extension of existing truck routes south of South Conduit Avenue to provide a single access route to the truck generator sites in this area, most notably on 147th Avenue. By designating a route, truckers will no longer be able to leave at the intersection closest to their destination, as they would be obligated to utilize the assigned route and leave at the intersection closest to their destination. Possible routes include portions of Guy R. Brewer Avenue and Farmers Boulevard.

- It is recommended that the Department look to add the Nassau Expressway to the Truck Route Network.
- Conduct public education program with local businesses and truck companies. Local businesses need to be aware of the Local and Thru Truck Route network, City traffic rules and the central source where information can be obtained and where to go to get questions answered.
- Increased police enforcement of trucks using 175th Street and Farmers Boulevard south of Conduit Avenue.

8. Cooper Avenue

The following measures are proposed for this corridor:

- Post “LOCAL TRUCK ROUTE” signs at the following intersection locations
 - Cooper Avenue and Myrtle Avenue
 - LTR with through arrow - eastbound approach
 - LTR with through and left arrows – westbound approach
 - LTR with left and right arrows –northbound approach
 - Cooper Avenue, Central Avenue and 73rd Place
 - LTR with through arrow – eastbound and westbound approaches
 - LTR with left and right arrows – northbound and southbound approaches
 - Cooper Avenue and Cypress Avenue
 - LTR with through arrow – eastbound and westbound approaches
 - LTR with left and right arrows – northbound approach
 - Cooper Avenue and 69th Street
 - LTR with through arrow – eastbound and westbound approaches
- Post new “Local Truck Route” signs at key intersections along Cooper Avenue.
- Analyze and revise traffic signal timing and phasing at the following intersections:
 - Cooper Avenue and Central Avenue
 - Central Avenue and Myrtle Avenue
 - Central Avenue and Cypress Hills Street

9. Bell Boulevard

- Post signs on Clearview Expressway directing trucks to use Northern Boulevard to access the Business District.
- Post “NO TURNS FOR TRUCKS EXEPT LOCAL DELIVERY” signs with on the southbound and northbound approaches to the intersection of the Clearview Expressway Service Road and 35th Avenue, and at 26th Avenue and the Clearview Expressway Service Ramps with Wayfinding signage for the Bay Terrace Shopping Center.
- Install proper Interstate Truck Route designation signage along the Clearview Expressway for Northern Boulevard.

- Post the “THRU TRUCK ROUTE” signs at the following intersection locations:
 - Northern Boulevard and Clearview Expressway Northbound Service Road
 - TTR with through arrow - eastbound approach
 - TTR with through arrow – westbound approach
 - TTR with left and right arrows –northbound approach
 - Northern Boulevard and Clearview Expressway Southbound Service Road
 - TTR with through arrow - eastbound approach
 - TTR with through arrow – westbound approach
 - TTR with left and right arrows – southbound approach
 - Northern Boulevard and Bell Boulevard
 - TTR with through arrow – eastbound and westbound approaches
- Analyze and revise traffic signal timing and phasing at the following intersections:
 - Northern Boulevard and Clearview Expressway service roads
 - 35th Avenue and Clearview Expressway service roads
- Meet with businesses to request their cooperation in having truckers use the City’s designated truck routes in making deliveries to their establishments.
- Provide businesses and truckers with truck route information packets described in *Technical Memorandum 4, Education Program*.
- Conduct random enforcement initiatives to ensure trucker compliance with truck route regulations.

10. 56th Street, 57th Street and 58th Street

The following measures are proposed for this truck issue area:

- Post “THRU AND LOCAL TRUCK ROUTE” signs at the following intersection locations:
 - All approaches at Queens Boulevard and 58th Street delineating proper Local and Through Routes
- Post the “NO TRUCKS EXCEPT LOCAL DELIVERY” signs at the following intersection locations:
 - All approaches at Queens Boulevard and 58th Street for northbound 58th Street
 - Queens Boulevard and 57th Street – westbound approach
 - Roosevelt Avenue and 56th Street – all approaches
 - Roosevelt Avenue and 57th Street – all approaches
 - Roosevelt Avenue and 58th Street – all approaches
 - Broadway and 58th Street
 - Northern Boulevard and 58th Street
- Meet with businesses to request their cooperation in having truckers use the City’s designated truck routes in making deliveries to their establishments.
- Provide businesses and truckers with truck route information packets described in *Technical Memorandum 4, Education Program*.
- Conduct random enforcement initiatives to ensure trucker compliance with truck route regulations.

11. Ditmars Boulevard/81st Street/Hazen Street

The following measures are proposed for this truck issue area:

- Designate 81st Street between 19th Avenue and Ditmars Boulevard as a Local Truck Route. This will connect the discontinuous routes and provide access for LaGuardia Airport trucks to access locations without traveling through residential neighborhoods. In addition, all negative signage along this route should be removed
- Post “NO TRUCKS EXCEPT LOCAL DELIVERIES” signs at the following intersection approaches:
 - 94th Street and Ditmars Boulevard
NTELD on west leg on northeast and southeast corners (visible to 94th Street)
 - 23rd Avenue and Ditmars Boulevard
NTELD on north leg on northwest and northeast corners
- Post the applicable TRUCK ROUTE” signs at the following intersection locations:
 - 94th Street and Astoria Boulevard
LTR with through arrow - northbound and southbound approaches
 - 94th Street and Ditmars Boulevard
LTR with through arrow - northbound and southbound approaches
 - 23rd Avenue and Ditmars Boulevard
LTR with through arrow – eastbound and westbound approaches
 - 23rd Avenue and 82nd Street
LTR with through arrow – eastbound and westbound approaches
- Post “TRUCKS TO LGA” signage at key intersections surrounding the Airport. This includes the following intersections.
 - 94th Street and Astoria Boulevard – East, West and South Approaches
 - 23rd Avenue and Ditmars Boulevard
 - 19th Avenue and 81st Street
- Analyze and revise traffic signal timing and phasing at the following intersections:
 - 82nd Street and 23rd Avenue
 - 94th Street and Astoria Boulevard
 - 94th Street and Ditmars Boulevard
 - Astoria Boulevard and 82nd Street
- Meet with businesses to request their cooperation in having truckers use the City's designated truck routes in making deliveries to their establishments.
- Provide businesses and truckers with truck route information packets described in *Technical Memorandum 4, Education Program*.
- Conduct random enforcement initiatives to ensure trucker compliance with truck route regulations.

12. Farmers Boulevard (North of Liberty Avenue)

The following measures are proposed for this truck issue area:

- Reconstruct the southwest corner to improve the turning radius at the intersection of Farmers Boulevard and 109th Avenue and re-stripe centerline and stop bar on the west leg of the intersection.
- Post “NO TRUCKS EXCEPT LOCAL DELIVERIES” signs at the following intersection approaches:
 - Farmers Boulevard and 109th Avenue
NTELD on northbound and eastbound approaches.
 - Jamaica Avenue, Farmers Boulevard and Hollis Avenue
NTELD on south leg on southwest and southeast corners
NTELD on east leg on northeast and southeast corners
- Post the “LOCAL TRUCK ROUTE” signs at the following intersection locations:
 - Farmers Boulevard and Liberty Avenue
LTR with “diagonal right” arrow on northbound approach
 - Farmers Boulevard and 109th Avenue
LTR with left arrow on northbound approach (place on northeast and northwest corners)
 - Liberty Avenue and 109th Avenue/Brinkerhoff Avenue
LTR with right arrow on westbound approach
LTR with through arrow on southbound approach
 - Farmers Boulevard, Hollis and Jamaica Avenue
LTR with left arrow – northbound approach
- Analyze and revise traffic signal timing and phasing at the following intersections:
 - Farmers Boulevard and 109th Avenue
 - Farmers Boulevard, Jamaica Avenue and Hollis Avenue
- Post notices on NYCDOT web page about the truck route information.
- Conduct random enforcement initiatives to ensure trucker compliance with truck route regulations.

13. 195th Street (between Jamaica and Hollis Avenues)

The following measures are proposed for this location:

- Post “NO TRUCKS EXCEPT LOCAL DELIVERIES” signs at the following intersection approaches:
 - Jamaica Avenue and 195th Street
NTELD on southwest and southeast corners
 - Hollis Avenue and 195th Street
NTELD on northwest and northeast corners
- Post the new “LOCAL TRUCK ROUTE” signs at the following intersection locations:
 - Jamaica Avenue and 195th Street
LTR with through arrow – eastbound and westbound approaches

- Hillside Avenue and 195th Street
LTR with through arrow – eastbound and westbound approaches
- Hollis Avenue and 195th Street
LTR with through arrow – eastbound and westbound approaches
- Conduct random enforcement initiatives to ensure trucker compliance with truck route regulations.

14. Jewel Avenue/72nd Avenue/69th Road

The following measures are proposed to address the truck issue:

- Post “NO TRUCKS EXCEPT LOCAL DELIVERIES” signs at the following intersection approaches:
 - Jewel Avenue and Van Wyck Expressway exit ramps
NTELD on northbound and southbound approaches
 - Jewel Avenue and Main Street
NTELD on east leg facing west and west leg facing east
 - Jewel Avenue and Kissena Boulevard
NTELD on east leg facing west and west leg facing east
 - Jewel Avenue and 69th Road
NTELD on west leg of intersection facing east
 - Jewel Avenue and 108th Street
NTELD on east leg facing west and west leg facing east
 - Queens Boulevard and Jewel Avenue
NTELD for all turning movements onto Jewel Avenue
- Enhance visibility of existing positive truck route signs along Queens Boulevard, Main Street and Kissena Boulevard
- Conduct random enforcement initiatives to ensure trucker compliance with truck route regulations.
- Provide Wayfinding signage to Truck Routes at the Van Wyck Expressway/LIE Interchange and along Jewel Avenue for local truck deliveries.

15. 32nd Avenue and 35th Avenue

The local complaint is that trucks are using 32nd Avenue and 35th Avenue as an alternate to the parallel Northern Boulevard. Both Avenues are entirely residential areas. There is no apparent reason for trucks to use this street except for local deliveries.

- Post “LOCAL TRUCK ROUTE” signs with through arrow at the Local Truck Route streets that cross Northern Boulevard.
- Install Wayfinding signage along roadway where there may be high incidence of illegal traffic.
- Conduct random enforcement initiatives to ensure trucker compliance with truck route regulations.

16. 20th Avenue/14th Avenue/Parsons Boulevard

The local community has complained that trucks exit the Whitestone Expressway and use local streets to access other Local Truck Routes in the area. The streets in the area in question are designated located truck routes (this issue has been partially addressed in the discussion of College Point).

In the case of trucks traveling east of the Whitestone Expressway on 20th Avenue and west on 14th Avenue, the proposed measure is strict enforcement of the truck route regulations to produce trucker compliance. In addition, signage recommendations have been included in the College Point analysis

It should be noted that the New York State Department of Transportation, as part of the Whitestone Expressway reconstruction has posted advisory signage on the Expressway advising drivers of the truck routes on the roadway approaches.