# New York City Truck Route Management and Community Impact Reduction Study

## Technical Memorandum 1
## Traffic Policies and Regulations

**March 2007**

**New York City Department of Transportation**
**Iris Weinshall, Commissioner**

Edwards and Kelcey

**TECHNICAL MEMORANDUM 1**
**Traffic Policies and Regulations**
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# 1. PURPOSE OF TECHNICAL MEMORANDUM

The purpose of this Technical Memorandum is to review the policies and rules related to truck activity in the City as well as other major cities in the United States; highlight inconsistencies in the City's policies; and propose recommendations to develop consistency on how the streets should equitably serve all users of a neighborhood. These recommendations will encompass those rules and regulations that are included as part of the New York City Traffic Rules, as well as other regulatory mechanisms that govern the movement of trucks and commercial vehicles in New York City. These recommendations can reflect localized, Borough specific and citywide changes and will include:

- Additional definitions that reflect the different types of trucks using the streets and which trucks are permitted to use, or not use, City streets (Section 4-01);
- Narrative changes to the rules and policies, and a rationale for the changes;
- Prioritization of capacity constraints to improve the efficiency of trucking network;
- Enforcement measures and techniques; and
- Review of recently completed New York City commercial vehicle goods movement studies done by other agencies and organizations, and innovative truck regulations and polices in other cities throughout the United States.

# 2. TRUCK REGULATIONS AND POLICIES

Section 2 of *Technical Memorandum 1* has been organized to present the following information:

- Overview of Federal, State and New York City truck route regulations and network;
- Responsibilities of City agencies to enforce the regulations; and
- Recommended changes in the regulatory framework.

This section of the study will provide an understanding of how trucks are managed by New York City, how truck route regulations were developed over time, and the enforcement mechanisms that were put in place to ensure compliance with the regulations.

## a. Overview of Regulations Governing Truck Traffic in New York City

The City of New York has been regulating the movement of trucks for the better part of the twentieth century. These changes have occurred concurrently as the Federal government has set forth guidelines and regulations for truck travel on the nation's roadways. Today, the evolving nature of truck travel and transportation has established New York City as one of the most challenging jurisdictions for truck travel in the entire nation. In order to understand the current context of the truck regulations in New York City, it is important to understand the history of truck regulations on both the national level and municipal levels. New York City itself, has been regulating truck and commercial traffic in some form, and has governed the movement of vehicles on its arterials. This is a product of both the existing infrastructure and the complexity of the City's roadway system.

In terms of highway infrastructure, New York City is unique in comparison to the rest of the nation, even when compared to other major cities. This is true for the Interstate, limited access roadways and the local arterials. Most of the Interstate system and road network is made up of pre-Interstate era roadways, many constructed between 1930 and 1950, which have been linked together for the purpose of route continuity. Several proposed Interstate corridors for the region were never built, leaving the City without the traditional bypass system that is customary in some of the nation's larger cities. In addition, most of the Interstate system in New York City is comprised of pre-Interstate era roadways, which are inadequate by modern Interstate construction standards. This includes lane widths that are often less than 12 feet and curve radii that do not meet the contemporary standards. In addition, there are vertical clearance issues, substandard sight distances and ramps and acceleration lanes that are too short.

During the past fifty years, plans and regulations have been developed to accommodate commercial vehicles on New York City streets and highways in an efficient manner, while trying to minimize the impacts to local citizens, as well as rationalizing the efficient movement of these vehicles. The primary result of these initiatives is the New York City Truck Route Network, which covers nearly five percent of the City's Streets and has been in place for nearly a quarter of a century.

This section will trace the evolution of the Federal, State and City regulations, and their current implications on the movement of truck traffic both within and through New York City.

## i. Federal Truck Regulations

While there are a number of regulations that govern truck movements in the United States, those that relate to vehicle dimensions have the greatest impact on the movement of trucks into and through the region. The two primary issues to be examined in this section relate to regulations on major U.S. highways and limitations on vehicles lengths and widths, and limits on the weight of vehicles, as well as maximum length and width. These regulations have important economic consequences because trucking accounts for four-fifths of expenditures on freight transportation in the United States, and trucking costs are influenced by truck size and weight. Size and weight limits also influence highway construction and maintenance costs and highway accident losses.

The earliest Federal truck regulations to impact the City of New York were established in 1935. The 1935 Motor Carrier Act brought the motor carrier industry under the regulatory authority of the Interstate Commerce Commission (ICC). Under this act, the ICC was given the authority to regulate motor carriers and drivers involved in Interstate commerce. The ICC controlled operating permits, approved trucking routes, and set tariff rates. Prior to the 1935 Motor Carrier Act, the trucking industry was gaining an advantage over the railroad industry due to a shift in freight demand to smaller minimum shipment sizes. As such, the ultimate goal of this act was to prevent large shippers from receiving an unfair trade advantage due to lower freight costs from volume discounts. However, this also was the dawn of the automobile age and the advent of the United States highway system.

The Federal government did not begin regulating truck size and weight limits until 1956 when maximum vehicle weight and width limits were imposed on vehicles operating on the new Interstate Highway System. This represented the first time the Federal government sought to implement operational constraints, rather than economic controls. States historically had regulated the weights and dimensions of vehicles operating on State highways, but Congress believed that the large Federal investment in the Interstate system required more direct Federal controls on the weights of vehicles using the Interstate system. A maximum gross weight limit of 73,280 pounds was established along with maximum weights of 18,000 pounds on single axles and 32,000 pounds on tandem axles. Maximum vehicle width was set at 96 inches, but length and height limits were left to State regulation. States having greater weight or width limits in place on July 1, 1956 when Federal limits went into effect were allowed to retain those limits under a grandfather clause.[1]

The Federal-Aid Highway Act of 1956 called for uniform geometric and construction standards for the Interstate System. These standards were developed by the State highway agencies, acting through the American Association of State Highway and Transportation Officials (AASHTO) and adopted by the Federal Highway Administration (FHWA). Examples of design standards for the Interstate System include full control of access, design speeds of 50 to 70 miles per hour (depending on type of terrain), a minimum of two travel lanes in each direction, 12-foot lane widths, 10-foot right paved shoulder, and 4-foot left paved shoulder. Initially, the design had to meet the traffic volumes expected in 1975. Later, the requirement was changed to a more general 20-year design period to allow for the evolution of the system[2]. This is a key since much of the Interstate system in New York City was designed and built before the

[1] United States Department of Transportation. *Comprehensive Truck Size and Weight Study.* Executive Summary on-line http://www.fhwa.dot.gov/reports/tswstudy/EXECSUM4.htm
[2] Federal Highway Administration, http://www.fhwa.dot.gov/programadmin/Interstate.html, August 4, 2004.

highway design standards were substantially revised to meet the needs of large commercial vehicles.

The United States Congress increased allowable gross weight and axle weight limits in 1974, under the Federal Highway Act Amendments of 1974, in part to provide additional cargo carrying capacity for motor carriers faced with large fuel cost increases at the time. Although the legislation provided for increases in the maximum axle weight, it did not mandate State adoption of these weights.

The 1980s proved to be a time of major changes in the trucking industry, both in terms of regulation and oversight. Beginning with the Motor Carrier Act of 1980, Federal control over the trucking industry was substantially reduced. Price competition was permitted, but carriers were still required to file Interstate tariffs with the ICC. This act resulted in price competition and lower profit margins for the trucking industry. In the subsequent years, the industry evolved as a result of this and later regulatory changes. As a result, established carriers expanded into new services, and private carriers and owner-operators began operating independently as for-hire Interstate carriers. Economic deregulation eroded the relevance of many traditional distinctions between trucking companies and carriers are now described more by the market segment they serve, truckload or less-then-truckload. Once these changes came about, the truckload carriers accounted for 80 to 90 percent of all combination truck traffic.[3] Before the motor carrier industry was deregulated by the Motor Carrier Act of 1980 there were fewer than 20,000 Interstate motor carriers in the United States. By August 2002, there were more than 585,000 U.S. carriers on file with the USDOT, including for-hire private fleets, and owner operators.[4]

In 1982, the Federal government established the foundation for the current regulatory framework by which truck size and weight regulation and the movement of trucks is governed. This legislation is commonly referred to as the Federal Surface Transportation Assistance Act (STAA) of 1982 (P.L. 97-424). The primary goal of the STAA was to fund improvements to the Nation's highways, bridges and mass transit facilities by raising and restructuring existing highway taxes. Another important aspect of this statute called for uniform weight, length and width limitations on trucks using major, Federally funded highways as well as establishing nationwide standards. Under this act, the Federal government expanded its regulation and authority over both vehicle size and weight and established minimum and maximum standards for weight, width, and minimum standards for length on the Interstate system and many Federal-aid highways.[5]

In particular, Congress required the States to adopt the Federal weight limits on Interstate Highways, as well as requiring them to allow vehicles with certain minimum dimensions on a newly created "National Network" for large trucks to be designated by the Secretary of Transportation in consultation with the States.

The National Network was designated on the basis of the route's general adherence to the following criteria:

[3] United States Department of Transportation. *Comprehensive Truck Size and Weight Study, Volume II Issues and Background*. Page IV-8.
[4] American Transportation Research Institute, "The Transportation Industry", http://www.atri-online.org/industry/index.htm, from the *American Trucking Trends 2003*.
[5] Transportation Research Board Special Report 221.

1. The route is a geometrically typical component of the Federal-Aid Primary System, serving to link principal cities and densely developed portions of the States.
2. The route is a high volume route utilized extensively by large vehicles for interstate commerce.
3. The route does not have any restrictions precluding use by conventional combination vehicles.
4. The route has adequate geometrics to support safe operations, considering sight distance, severity and length of grades, pavement width, horizontal curvature, shoulder width, bridge clearances and load limits, traffic volumes and vehicle mix, and intersection geometry.
5. The route consists of lanes designed to be a width of 12 feet or more or is otherwise consistent with highway safety.
6. The route does not have any unusual characteristics causing current or anticipated safety problems.

In particular, the STAA barred states from limiting the overall length of a tractor and 48-foot semi trailer in combination or the overall length of a tractor and two 28-foot semi-trailers or trailers in combination. The length provisions apply only when these combinations are in use on the National Network or in transit between these highways and terminals or service locations pursuant to providing reasonable access to these facilities.[6] In 1984, the STAA was amended to allow States the ability to seek exemptions for Interstate highway segments if designated corridors could not safely accommodate the larger trucks that were becoming more prevalent nationwide as many of the Interstate segments in urban areas were not designed to accommodate the oversized and longer trucks.[7]

Overall, this ruling had significant impacts on the movement of trucks through New York City and in the downstate region.

Nationwide, states were required to allow access to trailers of a minimum of 48 feet. However, maximum limits were not set, and as a result, legal trailer lengths vary by State. States were also required to establish and enforce a vehicle width limit of 102 inches for the Interstate and other Federal-aid highways designated by USDOT, provided that the traffic lanes were designed to be at least 12-feet in width. Governors had the ability to petition USDOT if segments were not capable of accommodating these 102-wide vehicles and request an exemption. The fact that New York City's major highways were constructed with pre-1950's design standards, coupled with extraordinarily high traffic volumes, low levels of service and high accident rates, were of serious concern when the 1982 STAA Act was passed and continue to factor into the overall regulatory framework that trucks must abide by within the confines of New York City. When the Act was passed, New York City due to its aged infrastructure and substandard Interstate elements looked at opportunities to address its roadway limitations in the context of the existing regulations, however, these efforts did not come to fruition. In New York City, a critical component of this legislation was the provision permitting states to limit access on these roadways for certain types of vehicles.

For the most part, changes in Federal size and weight laws contained in the 1983 Highway Act and as well as those developed in 1956, were derived from a consensus of recommended practices developed by the American Association of State Highway Officials (now recognized as the American Association of State Highway and Transportation Officials). Other important

[6] 23 CFR Part 658, Sec 658,13
[7] Tandem Truck Safety Act of 1984, Public Law 98-554, 98 Stat 2829

regulatory developments, however, have not been preceded by analysis or have been unintended consequences of legislative actions. For example, the 1983 law revising the Federal limits contained a complex set of vehicle length provisions (49 USC 3111) that proved to be instrumental in the eventual legal acceptance of 53-foot-long semi-trailers on nearly all major roads nationwide. Before the law, 45 feet was the most common length and 48 feet the greatest length commonly in use; today nearly half of all semi-trailers are 53 feet.[8] Legally, 53-foot long trailers are not STAA vehicles. For this reason, the Federal regulations do not apply to 53-foot long trailers in New York City.[9]

In 1990 the Federal Omnibus Truck Safety Bill contained a provision that allowed vehicles with a width of 102-inches to use any highway outside of New York City provided that the highway had at least 10-foot wide travel lanes. It also standardized the 48-foot trailer as the maximum trailer length that is not required to use the designated truck Access Highway system. The 1990 Truck Safety Bill contained a provision that vehicles with a width of 102-inches could use any highway outside of New York City (NYC) provided that the highway had at least 10' wide travel lanes. It also standardized the 48' trailer as the maximum trailer length that is not required to use the designated truck Access Highway System, Finally, in accordance with Section 385(3)(e) of the NYS Vehicle and Traffic Law, 53-foot trailer combinations, which are not STAA vehicles were restricted to the Qualifying and Access Highway system. New York City felt that 53-foot trailers were unable to safely maneuver on City Streets, and a provision was included in the legislation that prohibited the vehicles within the City. However, a specific route was created to facilitate trips to Long Island from points outside the City. This will be discussed in further detail in the next section.

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) froze the weighs of truck tractors with two or more trailing units operating on the Interstate System at the limits actually and lawfully in effect for such vehicles in a state on June 1, 1991. ISTEA also froze the maximum length of the cargo-carrying units of CMV's with two more such units on the National Network.[10]

The ICC Termination Act of 1995 removed Federal economic regulatory oversight of the trucking industry. This Act transferred licensing and certain functions to the Federal Highway Administration and the Surface Transportation Board, both under the auspices of the United States Department of Transportation. Deregulation resulted in decreased rates due to competition, improved service, price and service options, restructured routes, a reduction in empty back hauls and simplified rate structures.

Title 49, Section 658, of the Code of Federal Regulations establishes truck length, width and weight limitations for commercial vehicles, under Federal Motor Carrier Safety Administration Jurisdiction (FMCSA). The FMCSA was established as a separate administration within the United States Department of Transportation on January 1, 2000, pursuant to the Motor Carrier Safety Improvement Act of 1999, to develop, maintain, and enforce Federal regulations that promote carrier safety, industry productivity, and new technologies. Their primary purpose is to reduce crashes, injuries, and fatalities involving large trucks and buses.

Another major federal regulation relates to the National Highway System (NHS). The NHS was established after World War II to ensure roadways important to the nation's economy, defense

[8] Ibid. Pages 36 – 39.
[9] New York State Department of Transportation website: http://www.dot.state.ny.us/info/faq.html. July 15, 2004.
[10] USDOT, FHWA, "Federal Size Regulations for Commercial Motor Vehicles", page 13.

and mobility. Although the system evolved as the Interstate system was built out, the last major change to this legislation was in 1995 under the National Highway Designation Act of 1995. Overall, this system consists of 163,000 miles and represents only 4 percent of the nation's road, although they carry more than 40% of all highway traffic, 75% of heavy truck traffic and 90% of tourist traffic. Not all roadways in New York City that are part of the NHS are designated as truck routes, and there are some portions of the Through Truck Route Network that are not part of the NHS. In addition, these road roadways are not bound under the same regulations in terms of size and weight as the National Network, which constitutes a small segment of the Interstate network in New York City. In addition, nothing in the Federal Regulations shall be construed to prevent states from applying weight and size limitations to other highways, except when the state limits would prevent reasonable access to the National Network.

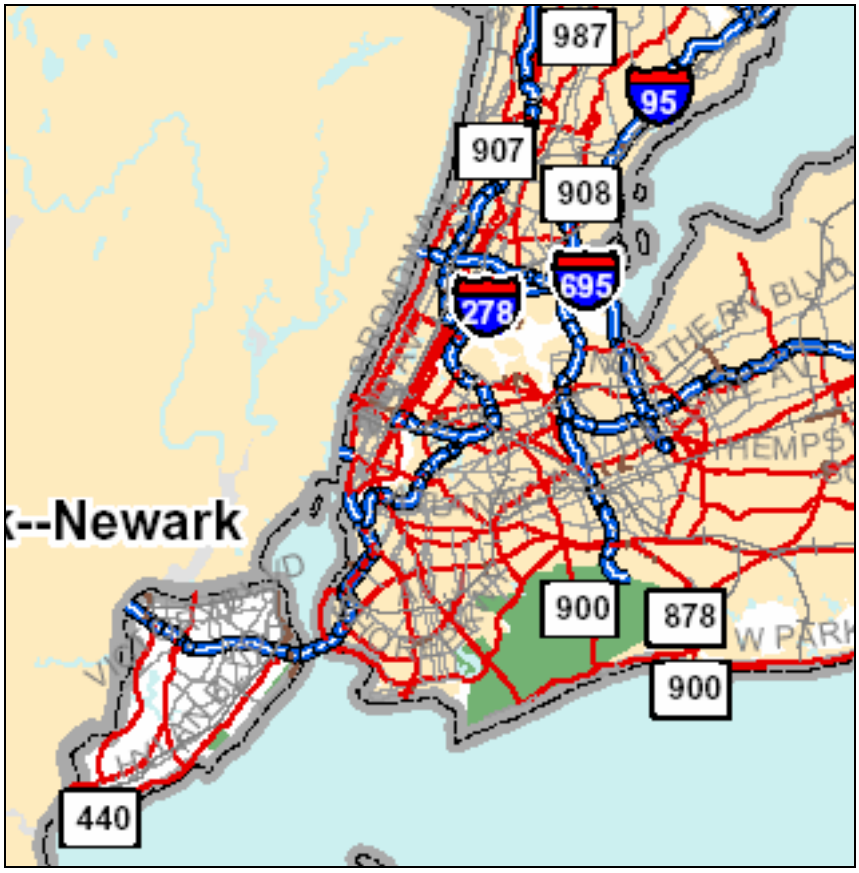
Overall, the NHS includes the following subsystems of roadways (note that a specific highway route may be on more than one subsystem:

- **Interstate:** The Eisenhower Interstate System of highways retains its separate identity within the NHS.
- **Other Principal Arterials:** These are highways in rural and urban areas which provide access between an arterial and a major port, airport, public transportation facility, or other intermodal transportation facility.
- **Strategic Highway Network(STRAHNET):** This is a network of highways which are important to the United States' strategic defense policy and which provide defense access, continuity and emergency capabilities for defense purposes.
- **Major Strategic Highway Network Connectors:** These are highways which provide access between major military installations and highways which are part of the Strategic Highway Network.
- **Intermodal Connectors:** These highways provide access between major intermodal facilities and the other four subsystems making up the NHS.

The designation of the intermodal connectors was one of the primary components of the 1995 bill. This included designated roadways to major intermodal facilities - ports, airports, rail terminals, etc. Working with the State DOTs, the Federal Highway Administration (FHWA) has identified connections to 1,166 intermodal terminals that warrant being included in NHS. The connections serve 198 ports, 207 airports, 307 public transit stations, 67 Amtrak stations, 82 intercity bus terminals, 190 rail/highway terminals, 37 ferry terminals, 58 pipeline terminals, and 20 multipurpose passenger terminals. Collectively, about 2,900 kilometers of roads and streets, which provide important connections to these terminals, have been identified for inclusion in NHS and thus are eligible for federal funding. The NHS system for the New York City region is depicted on the following page in Figure 2-1. A more detailed map showing the entire NHS is included in the Appendix.

It is important to note that most drivers are unaware of the differences between the National Network and the National Highway System. The primary differences between the two regulations will be discussed in further detail in the context of state regulations in the following section. However, it is important to note that access on the NHS system is not bound to the same length and size restrictions as those highways that are defined as part of the National Network of Qualifying and Access Highways. Therefore, many of these NHS roadways are bound by the City's maximum total length limit of 55 feet.

**Figure 2-1: USDOT – FHWA National Highway System**
**(Interstates in blue and Roadways in red)**




Nothing in the Federal Regulations should be construed to prevent states from applying weight and size limits to other highways, except when the state limits would prevent reasonable access to the National Network. Consequently, not all roadways in New York City that are part of the NHS permit trucks to travel on them. In fact, all combination vehicles that are larger in vehicle dimension and weight listed in the New York City Traffic Rules are not permitted to travel throughout most of the City, unless an oversized vehicle permit is obtained, or they are traveling along the designated Interstates segments that allow such travel.

Federal statutory limits do not by themselves dictate vehicle dimensions. State regulations apply on roads where Federal limits do not, and grandfather and permit operations of vehicles exceeding statutory limits are common. Many large trucks normally operate with dimensions below the limits (e.g., carriers specializing in commodities of low average density operate below the gross weight limit). For additional detail about the FMCSA truck length, width and weight limitations refer to Appendix D.

In summary, the following represents the current Federal regulations established for truck dimensions:[11]

- The maximum weight on any single axle (20,000 lb) and on any tandem axle, that is, any pair of closely spaced axles (34,000 lb), for vehicles on Interstate highways.

- The maximum weight on any group of axles on a vehicle (for example, the last four axles of a five-axle tractor-trailer), as a function of the span of the axle group and the number of axles, on Interstate highways (the bridge formula).

- The maximum weight of the entire vehicle (80,000 lb) on Interstate highways—States cannot impose lower weight limits than the Federal limits on Interstate highways.

- The width of vehicles – Federal law requires states to allow vehicles 102-inches wide on the National Network for Large Trucks, a Federally designated network that includes the Interstates and 160,000 miles of other roads.

- Trailer length and numbers – Federal law requires the states to allow single trailers at least 48-ft long and tractors pulling two 28-ft trailers on the National Network.

Other main provisions of the Federal regulations include:

- Grandfather exemptions – States in which vehicles exceeding a ederal limit were in operation before the enactment of the Federal limit may continue to allow the vehicles to operate indefinitely. The exemption applies to state permit operations as well as to general state limits.

- Statutory special exceptions – Federal law contains several exemptions applying to particular operations in specified states.

- LCV freeze – No state that did not allow operation of longer combination vehicles (LCVs, defined in general as multitrailer combinations having any trailer longer than 28-feet, having more than two trailers, or weighing more than 80,000 lb) on roads of the National Network before June 1991 may legalize operation of such vehicles on the National Network.

- Intrastate public transit buses – These vehicles are temporarily exempt from the axle weight limits.

- Enforcement – States are required to certify that they have effective programs for enforcing weight limits on Federal-aid roads as a condition for receiving Federal highway aid.

[11] Transportation Research Board, *Special Report 267 - Regulation of Weights, Lengths and Widths of Commercial Motor Vehicles*, 2002, Page 16 and 17.

### ii, New York State Truck Regulations

The existing truck regulations currently in place for New York State generally parallel those at the national level and in surrounding states. However, while these regulations and policies cover the entire State, there are numerous provisions within State regulations where the existing laws or policies are not applicable within the confines of New York City. These differences have been exacerbated over the past 20 years as both trends in goods movement and federal policies have created a complicated and distinct set of regulations governing truck dimensions and access within the City's boundaries. Central to this issue is the difficulty in understanding the differences between the state and federal regulations and those within New York City, and the application of both sets of rules on the various arterials which make up the New York City roadway system. In addition, due to the shear volume of daily truck traffic on both on an intra- and inter-city basis, and the regional nature of some of the City's roadways, the identification and compliance to these regulations is difficult on many levels.

The maximum dimensions for vehicles and combinations in New York State are less restrictive than those in New York City, especially relating to weight and overall vehicle lengths. The following information is specified in Section 385 of the New York State Vehicle and Traffic Laws.

**Maximum Dimensions of Vehicles and Combinations**

| | |
|---|---|
| **Width:** | 96 Inches (for school buses, 98 in) except on qualifying and access highways, the limit is 102 in. Outside New York City, the limit is 102 in, if the traffic lane is ten or more feet wide. |
| **Height :** | 13 1/2 feet (ft.) |
| **Length :** | **Single Vehicles (except Articulated buses and semi trailers)** - 40 feet inclusive of load and bumpers |
| | **Buses carrying more than 7 passengers** - 45 feet; **Articulated buses** - 62 ft. |
| | **Semi-trailer or trailer** - 48 ft. In double bottom operation each semi-trailer or trailer may not exceed 28 1/2 ft.<br><br>Outside of New York City, and in New York City on I-95 between I-287 and I-295, on I-295 between I-95 and I-495, and on I-495 between I-95 and the Nassau-Queens county line, a semi-trailer over 48 feet (but not over 53 feet) may be operated on a qualifying or specially designated access highway if the distance between the kingpin of the semi trailer and the centerline of the rear axles does not exceed forty-three feet, and if the semi-trailer is equipped with a rear-end protective device of substantial construction consisting of a continuous lateral beam extending to within four inches of the lateral extremities of the semi-trailer and located not more than twenty two inches from the surface |
| | **Combination of Vehicles** - 65 ft. inclusive of load and bumpers, except that on qualifying highways and access highways there is no limit on length, However the single vehicle length limit apply to vehicles in a combination of vehicles on qualifying highways and access highways. Also, certain vehicles are exempt from the 65 foot rule. |
| | Tractor semi-trailer-semi trailer combinations are permitted on all highways outside of New York City and Long Island, as well as on all access highways within the area by the use of a B-train assembly |

The maximum legal weights of vehicles permitted to travel on New York State Highways and Designated Highways is provided on Table 2-1. The key item of difference between the City and the State is that the State allows vehicles to have a maximum weight on all axles of a single vehicle of combination of vehicles having three or more axles to be up to 80,000 pounds versus the 73,280 pounds for New York City.

**Table 2-1: New York State Highways and Designated Highways**
**Maximum Truck Weight**

| | |
|---|---|
| Maximum load per tire, the lesser of: | 800 pound per inch width or manufacturer's tire rating. |
| Maximum wheel loading | 11,200 pounds |
| Maximum weight, one axle | 22,400 pounds |
| Maximum weight, any two consecutive axles, less than eight (8) feet apart.<br>1. Axles less than 46 inches apart, measured from axles' centers, are considered one axle. | 36,000 pounds |
| Maximum weight, any two consecutive axles eight (8) to ten (10) feet apart. Weight cannot exceed formula: | W=500[LxN)/(N-1)+(12xN)+36]; 40,000 pounds maximum. |
| Maximum weight on all axles of a single vehicle or combination of vehicles having three (3) axles or more is 80,000 pounds based on one of the following formulas: | |
| 1. For any vehicle or combination of vehicles having a total gross weight less than 71,000 pounds, the higher of the following shall apply:<br><br>a. The total weight of all axles shall not exceed 34,000 pounds plus 1,000 pounds for each foot and major fraction of a foot of the distance from the center of the foremost axle to the center of the rear most axle; or,<br>b. The overall gross weight on a group of two or more consecutive axles shall not exceed the weight produced by application of the following formula:<br><br>*W=500 [(LxN)/(N-1) + (12xN) + 36]* *40,000 pounds maximum*<br><br>where: W equals overall a gross weight on any group of two or more consecutive axles to the nearest 500 pounds, L equals distance in feet from the center of the foremost axle to the center of the rearmost axle of any group of two or ore consecutive axles, and New equals number of axles in group under consideration, except that two consecutive sets of tandem axles may carry a gross load 34,000 pounds each providing the overall distance between the first and last axles of such consecutive sets of tandem axles is thirty-six feet or more. | |
| 2. For any vehicle or combination of vehicles having a total gross weight of 71,000 pounds or greater, the formula in section F.1.b. shall apply. | |

Source: http://www.dot.state.ny.us/nypermits/index.shtml

As indicated previously, the 1982 STAA bill designated the National Network system of roadways which allow for STAA vehicles to travel. In New York City, the movement of STAA vehicles within and through the City of New York is not always an easy one to make. Much of the language in the STAA focuses on maximum limitations that states may employ on their roadways. Based upon these limitations, the New York State Department of Transportation has established a comprehensive listing of Qualifying (National Network) and Access Highways for use by Special Dimension Vehicles in New York City, the name given to the STAA vehicles in New York State.

As illustrated in Figure 2-2, the types of vehicles allowed on the Designated system were initially authorized by the 1982 STAA and subsequent state legislation, including the 1990 Omnibus Truck Safety Bill. They do not include longer combination vehicles (LCV's) such as triple 28 foot

and twin 48-foot trailer combinations. While 48-foot tandem combinations are currently allowed in New York, they are restricted to the New York State Thruway System and some immediately adjacent highways. This illustration also indicated the allowable widths and lengths of trucks that are permitted to travel on the various types of highways within New York State.

Special Dimension Vehicles may also operate on all highways within one road mile of Qualifying Highways (National Network) using the most reasonable and practical route available, except for specific safety reasons on individual routes

The following roadway segments are currently designated as National Network or Qualifying Roadways in New York City:

- I-87 (Major Deegan Expressway) - Bronx-Westchester County line (BRONX) to I-95 (BRONX); except that usage is restricted from the left lane.
- I-95 (Bruckner Expressway) - Bronx-Westchester County line (BRONX) to I-95 (Cross Bronx Expressway) (BRONX); except that usage is restricted from the left lane.
- I-295 (Cross Bronx Expressway) – I-95 (Bruckner Expressway) (BRONX) to I-295 (Clearview Expressway) (BRONX); except that usage is restricted from the left lane.
- I-295 (Clearview Expressway) – I-95 (Bruckner Expressway) (BRONX) to I-495 (Long Island Expressway) (QUEENS); except that usage is restricted from the left lane.
- I-495 (Long Island Expressway) – I-295 (QUEENS) to the Queens-Nassau County line: except that usage is restricted from the left.

In addition to the National Network, New York State has developed a system of highways accessible by large trucks (STAA vehicles) that are known as *Access Highways*. Unlike Qualifying Highways, the Access Highways do not allow vehicle combinations to travel off the access highway for any distance. The maximum trailer length not required to use the designated truck Access Highway system is 48 feet. The *Official Description of Designated Qualifying and Access Highways in New York State* lists Qualifying and Access Highways designated for use by Special Dimension Vehicles in New York as of January 1, 2005. There is some confusion as the existing *"Official Description of Qualifying and Access Highways in New York State" guidebook states that this guidebook does not list the Access Highways in New York City. It is the general consensus that these roadways do not exist, as none have been formally designated* [12]

In addition, it should be noted that there are several Interstate routes and portions of the Interstate system that are not designated in the aforementioned guidebook. While Federal regulations stipulate all Interstates would fall under STAA jurisdiction, this is not entirely clear when referring to the State handbook, or in determining the extent of where the STAA rules are effective in New York City.

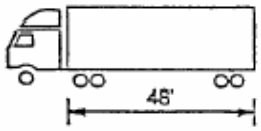
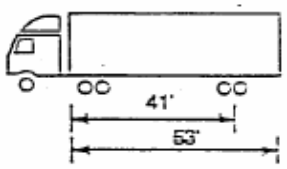
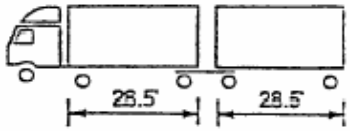
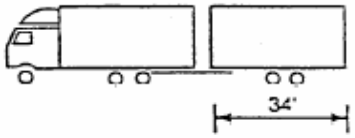
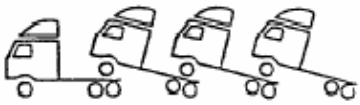
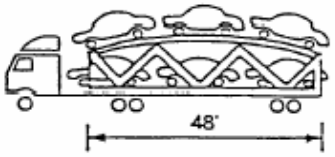
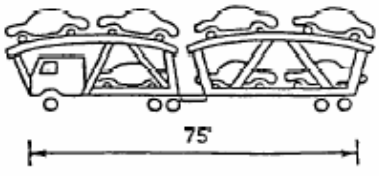
[12] New York State Department of Transportation, Traffic Engineering & Highway Safety Division, Operations Bureau. *Official Description of Designated Qualifying and Access Highways in New York State*. January 2005. Page 3.

## Figure 2-2: Allowable Widths and Lengths on New York State Highways

### *ALLOWABLE WIDTHS*

102" ALL QUALIFYING AND ACCESS HIGHWAYS; OTHER HIGHWAYS WITH 10 FT. LANES, (EXCLUDES NYC)
96" HIGHWAYS WITH LESS THAN 10 FT. LANES; WHERE SPECIFICALLY DESIGNATED; NYC

### *ALLOWABLE LENGTHS*

| | QUALIFYING | ACCESS | OTHER | |
|---|---|---|---|---|
| SEMI-TRAILER WITH CAB | 48' * | 48' * | 48' 65' |   |
| SEMI-TRAILER WITH 41' KINGPIN WITH CAB | 53'(A) * | 53' * | NA NA |   |
| TANDEM TRAILER WITH CAB | 28.5' * | 28.5' * | 28.5' 65'(C) |   |
| MAXI-CUBE | 65' | 65' | 65' |   |
| TRIPLE SADDLE MOUNT | * | * | NA |  |
| AUTO CARRIER | | | | |
| CONVENTIONAL | *(B) | *(B) | 65'(B) |   |
| STINGER-STEERED | 75'(B) | 75'(B) | 65'(B) |   |

*- UNLIMITED LENGTH NA - NOT ALLOWED
NOTE: (A) IN NYC, PERMITTED ONLY ON SPECIFICALLY DESIGNATED INTERSTATES
(B) EXCLUDING PERMITTED OVERHANG 3' FRONT AND 4' REAR
(C) EXCLUDING NEW YORK CITY, NASSAU COUNTY, AND SUFFOLK COUNTY

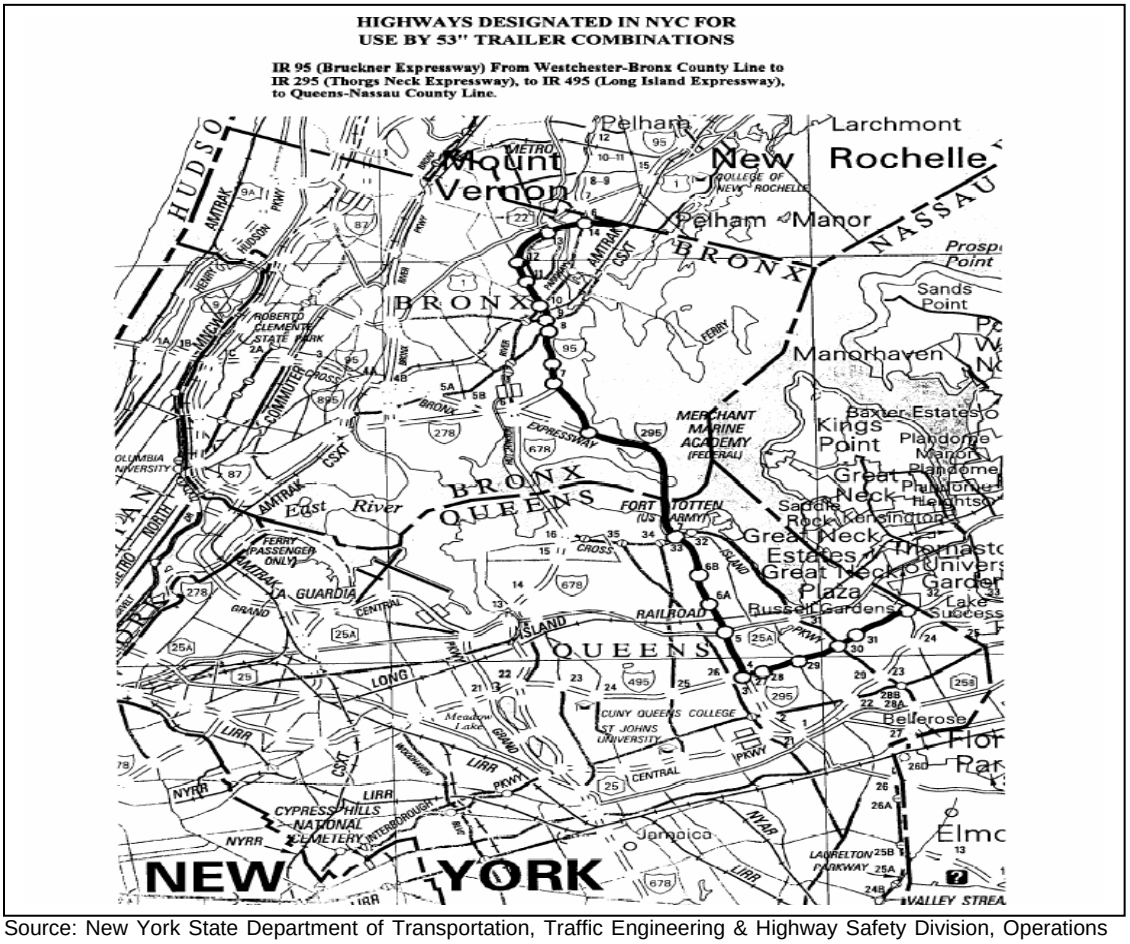
Under the 1990 Omnibus Truck Safety Bill, New York authorized the use of 53 foot trailer combinations. Per Section 385(3)(e) of the Vehicle and Traffic Law, the 53 foot trailer combinations are restricted to the Qualifying and Access Highway System. At the time, New York City was able to gain a provision in the legislation that prohibited the vehicles from within City. The primary basis of this was the perception that 53 foot trailers would be unable to maneuver effectively on City Streets.

However, in order to provide service to Long Island, one specific route corridor consisting of the following interstate highways was approved for travel to Long Island. The New York City interstate routes approved for 53 foot trailers included:

- I-95 – between the Bronx-Westchester County Line and I-295
- I-295 – between I-695 and-495 via Throgs Neck Bridge
- I-495 – between I-295 and Queens-Nassau County Line

This route is depicted below in Figure 2-3

## Figure 2-3: Highways Designated in NYC for Use by 53-Foot Trailer Combinations



Source: New York State Department of Transportation, Traffic Engineering & Highway Safety Division, Operations Bureau. *Official Description of Designated Qualifying and Access Highways in New York State*. May 2003. Page 5.

It should be noted that in 2001, the State moved to increase the kingpin distance for 53-trailers from 41 feet to 43 feet[13] . This rule was applied statewide, except in any city not wholly included within one county. The impacts of this change put New York State more in line with other states kingpin regulations and the guidelines for AASHTO design standards for determining the turning radius and design specifications.

### iii. New York City Truck Regulations

The regulation of commercial traffic and trucks in New York City predated many of the Federal and State regulations and policies that have evolved over the past 80 years. The City of New York has been regulating commercial vehicles since the 1920's when the automobile began to flourish and industry and commerce began to shape the commercial vitality of the City. Accordingly, the City has actively tried to manage the need to provide access for these vehicles, while preserving the safety and quality of life for its citizens.

*Pre-1974 Regulations and Basis for Original Truck Route Studies*

Prior to 1974, the City had numerous provisions governing the definition and operation of commercial vehicles and trucks within the City and within Manhattan in particular. Overall, the existing regulations in effect during the mid 1970s were ineffective in regulating the bulk of the truck traffic and commercial vehicles that were traveling in New York City. The basis of the Truck Route regulations were built around the premise that they only applied to vehicles "having an overall length of thirty-three (33) feet of more, including load and bumpers". Drivers were allowed to operate on non-designated streets for the purpose of delivery, loading, or servicing, but they had to proceed by the most direct route to and from a designated truck route. (Article 16, Section 180). As shown in the following borough level findings for the 1970s studies, less that 10% of overall truck traffic was regulated under these guidelines.

In addition, Article 19, Section 211 defined the limitations on the dimensions and weights of vehicles operated within the City of New York. The most significant restrictions are summarized as follows (1974):

- Maximum width
  - 96 inches (except buses and fire vehicles);

- Maximum height
  - 13 feet 6 inches;

- Maximum length (inclusive of load and bumpers)
  - 35 feet for single unit vehicles (except buses) and 55 feet for multi-unit vehicles;

- Maximum loaded weight
  - 22,400 lbs. on any one axle,
  - 36,000 lbs. on any two consecutive axles less than 10-feet apart;
  - 34,000 lbs. plus 1,000 lbs. per foot from center of rearmost axle for vehicles with 3 or more axles; and

[13] Senate Bill #4672, Chapter 452 of the Laws of 2001

- Maximum Total weight
  - 73,280 lbs.

One of the principal objectives of the original Truck Route studies was to develop a truck classification system for the purpose of regulation which would have increased the number of vehicles under control as well as facilitate the enforcement of the regulations. In the early 1970s, it was anticipated that over 93% of the registered trucks in the tri-state region were either 2 axle – 4 tire single unit trucks or 2 axles – 6 tire trucks. Three axle trucks made up only 2% and tractor trailers 4.7%. During the Truck Studies in the late 1970s and early 1980s, these trends continued, although tractor-trailers began to encompass a larger number of all truck trips. For example, in Brooklyn, counts at 19 critical intersections in 1978 found that 48.0% were two-axle/four tire vehicles, 35.7% two axle/six tire vehicles, and only 6.4% three axles single unit vehicles. Tractor-trailers comprised only 9.9% of all trucks. Comparatively, truck access and land use was a determining force in the size of vehicles that were traversing city streets. In areas like southern Brooklyn and around the Meat Market in lower Manhattan, tractor-trailers were more prevalent.

When these studies were being undertaken, the vehicle mix in New York City was drastically different than the current composition of truck and commercial vehicles in New York City today. At the time, tractor trailers comprised only a small portion of truck traffic, and four-axle tractor trailers, typically 45 to 55 feet were the largest trucks to normally enter the City. At the time, the 55 foot total vehicle length was also the design standard for roadway design and in acceptance nationally. On the City level, while there were some general citywide guidelines, each of the five Boroughs established their own rules and regulations governing the movement of trucks that were independent of one another. This created a series of Truck Route Networks and regulations that lacked the cohesiveness necessary to allow for comprehensive citywide management. The end result was that the truck rules and regulations established prior to 1974 differed from Borough to Borough, with truck routes often not connecting between Boroughs. This lack of cohesion made it difficult for trucks to travel in a manner that was efficient and easily understandable to truckers, businesses, residents, judges and law enforcement agents.

*Findings and results from the Original Truck Route Studies (1974 – 1981)*

Beginning in 1974 and concluding in 1981, NYCDOT undertook a specific Borough-by Borough review of the regulations governing the movement of trucks. The primary objectives of these studies were to:

- Develop a new truck route classification system which would increase the percentage of vehicles under control and facilitate the enforcement of regulations.
- Designate one or more Truck Route Networks which would effectively serve the needs of industry and at the same time, minimize the adverse effects on the surrounding neighborhoods.
- Develop a new set of regulations to control and enforce the truck route system.

Rather than being a cohesive citywide effort, Boroughs were studied individually and updates and changes to their routes were done progressively over a seven-year time period between 1974 and 1981. Queens and Staten Island were the first two Boroughs to update their truck routes and regulations, followed by Manhattan, and then the Bronx and Brooklyn. During the

seven-year time period it took to develop the Truck Route Network and regulations for all five Boroughs there was some confusion for truck drivers crossing between Boroughs and the New York City Police Department and NYCDOT enforcement agents as to which set of rules and regulations to apply.

From 1974 to 1981, the present day system of truck routes and regulations were developed for each Borough. A truck study was performed for each Borough to meet the goals and objectives of improving commercial and industrial areas, revising outdated truck regulations that only applied to less than 10% of the trucks operating in the region; maintaining a truck route signing program; improving the enforcement of existing regulations; and studying how other cities around the United States regulate truck movements. The impetus for undertaking this effort was similar to that of this current study. Issues such as damage to roads and private property (vibration damage to homes), protection of neighborhood residents from noise and air pollution, traffic congestion, and safety hazards for pedestrians and motorists were all at the forefront of community and business concerns.

Most importantly, these Borough truck studies created a system that was consistent and comprehensive enough to allow trucks to move throughout the City efficiently and to allow for improved enforcement. Most of the regulations developed were fairly uniform and broad enough to be applied throughout the City, unless some specific condition had to be addressed due to a unique truck movement pattern, physical constraint, land use mismatch and/or other condition that might exist within a particular location in a Borough.

Queens was the first Borough-wide new truck route and regulation study to be completed and implemented, establishing the framework and methodology upon which the remaining four Borough studies were conducted. Typically, a Borough study covered three phases: 1) Data Collection, 2) Data Analysis, and 3) Recommendations. In most of the studies an inventory of existing and potential truck routes, performance of vehicle classification counts, detailed analysis of truck movement patterns and a review of regulatory practices in other cities were performed. In addition, the Queens study included a detailed literature search. The gathering of this information, in addition to meetings that were held with public agencies, private groups and area residents and business owners, helped to identify truck regulations and physical locations that needed to be improved, as well as develop recommendations. Various stakeholders including the Queens Borough President's Office, Queens Community Boards, NYCDOT, trucking industry representatives and other agencies and private groups participated in ensuring that the recommendations and outcomes reflected the needs of all users.

The Queens study identified four major deficiencies with the existing Truck Route Network and regulations:

1. Trucks less than 33-feet in length were not regulated by New York City. As a result, less then 10% of the trucks operating in the region were covered by the 'Traffic Rules' of New York City, thus the pre-existing regulations (Article 16, Section 180) were only applicable to tractor-trailers and excluded all single-unit trucks.

2. The existing Truck Route Network was outdated. It was not known when the original ordinance was enacted, but there were many streets that no longer existed, had been renamed, undergone structural changes or were not served by the network.

3. There was no uniform traffic signage program in the City. Truck route and truck

prohibitions signs were placed in response to local community complaints rather than as part of any coordinated program.

4. The enforcement of existing regulations was a serious problem due to lack of manpower and signage, the varying definition of what constituted a truck in terms of vehicle length, and the fact that trucks were allowed to deviate off the designated truck routes for pickups, deliveries and servicing.[14]

The Queens Truck Study concluded that there was no reason for through trucks to use a majority of the roads within the Borough. A series of through truck route streets were established for use by those trucks that did not have a local origin or destination within Queens. This network consisted primarily of limited access roads (with the exception of the parkways) and the major east-west and north-south arterials serving the Borough. This ensured that virtually no point in Queens would be more than one mile from a designated route segment.[15]

As was the case under the previous "Traffic Regulations of the City of New York," a truck driver was required to remain on a designated route until reaching the intersection closest to the destination; proceed to that destination by the most direct route; and then return to the designated route network after business was completed.[16] The Queens truck study made some additions and deletions to previous truck routes based on roadway geometry (narrow roadway, no intersecting roadway, steep grade, poor turning radius), adjacent land use (i.e. residential), existing traffic, and the need to effectively serve commercial and industrial demands. A new truck routing ordinance was recommended for Queens based on the following:

- Development of new criteria to determine if a truck is governed by the ordinance from a length measurement to an axle-tire count – which could be performed without stopping the vehicle.

- Inclusion of all trucks larger than two-axle/four-tire vehicles to be governed by the ordinance.

- Exemption of all vehicles responding to an emergency from the truck routing ordinance.

- Implementation of a separate Truck Route Network for through trucks.

- Implementation of a more detailed local distribution Truck Route Network for trucks with an origin or destination within Queens.

- Implementation of a comprehensive truck route signing program.

- Simplified enforcement measures that allow a police officer to only have to check to see if a vehicle is larger than two-axle/four-tires and/or review the truck driver's trip log to determine whether a violation had been committed.

- Priority to truck route segments requiring pavement upgrading, and for pavement thickness to be increased on those roads in need of rehabilitation and that carry more

[14] Ibid. Page III-6.
[15] Ibid. Page V-4.
[16] Ibid.

than 550 vehicles per hour and truck volumes that exceed 10%.

Given budgetary limitations at the time, it was recommended that signage priority be given to only those intersections that were along Through Truck Routes with local distribution routes. If numerous truck violations occurred at a particular location, it was recommended that specific truck prohibition signs be installed at that location. These signs could not be placed in too many locations given the cost implications as well as the intended purpose of ensuring that the local streets are not overly signed, causing further confusion among truck drivers.

The truck route study conducted for Manhattan made many recommendations similar to the Queens study, but it also added the following Borough-specific recommendations:

- Through-truck trips traveling east-west were restricted to the Trans-Manhattan Expressway in upper Manhattan, 34th Street in Midtown, and Canal Street in Lower Manhattan. Through trucks were prohibited from 34th Street between 11:00 AM and 6:00 PM, Monday through Saturday. These Through Truck Routes were developed to allow the most logical flow of trucks in Manhattan given the existing truck travel flows serving areas adjacent to Manhattan and to lessen the impact to residential areas by limiting these routes to a few areas of the Borough.

- Residential areas in lower Manhattan that were surrounded by commercial and industrial land uses such as Chelsea, Chinatown, Greenwich Village, Little Italy and the Lower East Side were designated as "Limited Truck Zones" where all commercial vehicles (excluding passenger vehicles with commercial plates) would be prohibited all day except for local deliveries and servicing.

- The east-west streets in the Garment District were classified as "Limited Truck Zones" between the hours of 9:00 AM and 5:00 PM Monday through Friday.

- Trucks having an overall length of 33-feet or more were prohibited from the Financial District (11:00 AM to 2:00 PM) and Midtown Core (12:00 noon to 6:00 PM) during daytime periods. If an adequate off-street loading facility was available, then these restrictions did not apply. In the Financial District problems are caused by narrow streets, unsignalized intersections, and the lack of parking and heavy pedestrian traffic during the midday.

- "Truck-Free Roadways" (north and south limited access roadways) were designated on streets where commercial vehicles, including passenger vehicles with commercial plates are currently prohibited. Truck use of these streets required a special permit.

- "Truck-Restricted Streets" would not allow trucks to travel along these streets except to make local deliveries, loading, or servicing. These restrictions were developed based on vehicle size and the time of day.[17]

The Queensboro Bridge, also known as the 59th Street Bridge, was originally proposed as a Through Truck Route but was eliminated due to objections of the communities on the east side of Manhattan and was instead listed as a local truck route. The bridge is not linked to a limited-

[17] De Leuw, Cather & Company of New York, Inc. for the New York City Department of Transportation Bureau of Traffic Operations, *Manhattan Truck Route Study*, August 1978.

access arterial in Queens or Manhattan, and an inordinate number of turns are required in Midtown Manhattan to gain access to the bridge from the Lincoln Tunnel. It was also determined that there was adequate truck access available from the Queens-Midtown Tunnel which has a vertical height clearance of 12'-1".

In Brooklyn, one of the primary issues identified during the study was that the existing route system was outdated. Many physical and name changes had not been incorporated into the regulations, and many major roads and bridges were missing from the network (e.g. Verrazano Narrows Bridge and Brooklyn-Queens Expressway. In addition, the existing network did not serve many areas of new commercial and industrial development (e.g. Kings Plaza). One notable issue identified was in regard to signage, where truck route signs were installed on streets that were not officially part of the existing Truck Route Network creating enforcement problems. Areas such as Greenpoint/Williamsburg and Southern Brooklyn were identified as problem areas, as well as other locations that continue to be problematic today.

In Staten Island, one of the most significant issues ongoing during the time of the study was significant residential development. In the 14 years prior to the Truck Study, over 39,000 new housing units were constructed, fostering a growth in population of nearly 338,000 people. However at the time, considerable portions of residentially zoned land used remained undeveloped. At the time, Staten Island was a growing industrial center with a significant amount of industrial infrastructure along the waterfront and had an active freight rail line, Unlike today, most of the retail centers were smaller and located in residential districts although there were some pockets of major retail developments. In addition, unlike other boroughs, the existing route system and physical roadways help control the utilization of the roadway network by through trucks onto limited access arterials which all lead to bridge crossings. One of the primary recommendations resulting from the study was the designation of limited local truck routes in the central section of Staten Island, which prohibited trucks with three or more axles. This area is very hilly with steep grades, narrow roadway widths, and sharp changes in horizontal alignment, which is often difficult for the tractor-trailer combinations, and sometimes three-axle single-unit trucks to safely traverse. These roadways were designated as Limited Local Truck Routes.

In the Bronx, some of the main issues that were identified included congestion and traffic on bridges. Nearly 10% of the daily volume on all bridges was comprised of trucks. In addition, because of its nature as a hub for through truck trips there were varying peak travel periods. As stated above, many of the physical and name changes to roadways were not incorporated into the regulations and many major bridge and highways were missing from the network. Similar to Brooklyn, many of the merging industrial and business centers, such as Hunts Point, were not well served by the existing regulations.

Careful consideration was made throughout all of these studies to meet the objective of assuring that "the compatibility of Truck Route Networks in all Boroughs is under a uniform citywide regulation." This not only allowed for an ease of understanding of the truck regulations by truck drivers, business and residents alike, but it also enhanced the enforcement being conducted by police officers, traffic agents and other public employees.

*Existing Truck Route Network and Regulations in New York City*

The existing Truck Route Network and the regulations in place today are nearly identical to those put in place in 1981 at the end of the Citywide Truck Studies. Over the course of the past 25 years, there have been some amendments to the route system, although these have been localized in nature and impact.

The statutory framework for the City's regulations is found in Article IX, Section 2(c)(6) of the New York State Constitution, which gives localities the power to adopt local laws relating to "the management and use of its highways, roads, streets, avenue and property," so long as the local rules or State laws do not conflict with the State Constitution or State law. Section 1640 of the New York State Vehicle and Traffic Laws (VTL) grants the legislative body of any municipality the power to make specific laws relating to their streets. The exclusion of truck traffic and commercial vehicles from certain roadways is one of these powers enumerated in the VTL(Section 1640(a)(5).In addition, under Section 1642 of the VTL, cities with more than one million residents receive additional powers to regulate traffic. Included in these powers is additional power to prohibit or regulate the use of "any highway by particular, vehicles or classes or types thereof." Vehicle weights and the overall dimensions of vehicles are also specified within Section 1642 of the State VTL.

Based upon this authority the New York City Department of Transportation has established a Truck Route Network, as well as a set of regulations by which trucks and commercial vehicles must abide. The following represents the primary components of the regulations governing truck and commercial traffic on New York City.

*Truck Route Network*

There are nearly 20,000 miles of streets and highways in New York City. This roadway network consists of more than 1,000 miles of limited access roads, more than 7,000 miles of primary and secondary routes, and approximately 11,000 miles of local streets. The official truck roadway network consists of routes designated by the City for use by vehicles defined as Trucks under New York City law. All commercial vehicles are prohibited from using any park roadway, except if they have a permit in which case they are allowed to make a local delivery. Where service roads adjoin the main roadway to a park vehicles are required to use the service roadways and enter and leave the park at the nearest intersection or entrance in the direction of traffic. This study identified 937 miles of truck routes within the City of New York, respectively consisting of 674 and 263 miles of Local and Through Truck Routes miles (Table 2-2).

**Table 2-2: New York City Truck Route System**

| Borough | Truck Route System | | |
|---|---|---|---|
| | Local (miles) | Through (miles) | Total (miles) |
| Bronx | 132 | 40 | 172 |
| Brooklyn | 148 | 50 | 198 |
| Queens | 111 | 132 | 243 |
| Manhattan | 113 | 17 | 130 |
| Staten Island | 170 | 24 | 194 |
| **Total** | **674** | **263** | **937** |

Due to New York City's island geography, the numerous bridges and tunnels within the City and the region play an important role in the movement of goods. Five tolled bridges are part of the

Truck Route Network: Throgs Neck, Bronx-Whitestone, Triborough, Verrazano Narrows and Marine Parkway bridges; three free bridges: Williamsburg, Manhattan, and Queensboro; and two tolled tunnels: Queens-Midtown, and Brooklyn-Battery. In addition, some of the upper East River bridges controlled by NYCDOT are also part of the Truck Route Network. The PANYNJ George Washington, Outerbridge, Goethals and Bayonne bridges and Holland and Lincoln tunnels are also major commercial vehicle access points to the New York City Truck Route Network connecting to New Jersey.

*Traffic Rules and Regulation*

The laws governing the movement of trucks and commercial vehicles within New York City are found in the Traffic Rules of New York City. Although this document applies to all the roadways and street users within New York City, there are several key sections which focus on commercial vehicles and truck regulations. These include definitions; restrictions on Movement; rules pertaining to parking, stopping and standing; designation of Truck Routes and limitations upon dimensions and weights of Vehicles.

*Trucks*

For the purposes of parking, standing and stopping rules, a truck is a commercial vehicle, as defined in paragraph (i) of the definition of commercial vehicle, except for the purposes of parking, standing and stopping rules in the area bounded by 35th Street on the south, 41st Street on the north, Avenue of the Americas on the east, and 8th Avenue on the west, all inclusive, in the Borough of Manhattan, between the hours of 7 am to pm , a vehicle shall not be deemed a truck unless it complies with the provisions in Section 4-13(a) (1) of the Traffic Rules

For the purpose of the Truck Rules (Section 4-13 of the Traffic Rules), a truck is defined as any vehicle or combination of vehicles designed for the transportation of property, which has either of the following characteristics: two axles, six tires; or three or more axels.

*Commercial Vehicle*

For the purpose of parking, standing, and stopping, a vehicle shall not be deemed a commercial vehicle unless:

(a) it bears commercial plates; and
(b) it is permanently altered by having all seats and seat fittings, except the front seats, removed to facilitate the transportation of property, except that for vehicles designed with a partition, the passenger cab and a cargo area separated by a partition, the seating capacity within the cab shall not be considered in determining whether the vehicle is properly altered; and
(c) it displays the registrant's name and address permanently affixed in characters at least three inches high on both sides of the vehicle, with such display being a color contrasting with that the vehicle and placed midway vertically on doors or side panels

For the purposes of rules other than parking, stopping and standing rules, a vehicle designed maintained, or used primarily for the transportation or property, or for the provision of commercial services and bearing commercial plates shall be deemed a commercial vehicle

Vehicles bearing commercial or equivalent registration plates shall not be deemed trucks or commercial vehicles unless they are permanently altered and marked as required

Section 4-13 of the Traffic Rules provides the complete listing of the entire Truck Route Network and the regulations pertaining to the use of these roadways. Currently, there are three primary types of truck routes within the City which are classified as follows: 1) Through Truck Routes; 2) Local Truck Routes; and 3) Limited Local Truck Routes. In addition, there are additional restrictions in place on the movement of trucks in Limited Restriction zones.

*Through Truck Routes*

Through Truck Routes require any vehicle or truck combination designed for the transportation of property with two axles, six tires, or three or more axles making trips with neither an origin nor destination within a particular Borough to stay on the Through Truck Routes and thereby minimize their intrusive use of the local street network. For the most part, these roadways comprise of the Interstate system, as well as the primary arterials in each Borough that provide through movements across the Borough along corridors which are not served by limited access roadways. Queens has the most lane miles of Through Truck Routes due to its geographic position between Brooklyn and Long Island and the nature of truck trips both entering and leaving the Borough.

*Local Truck Routes*

Local Truck Routes apply to the same size trucks permitted under the Through Truck Routes (two axles, six tires, or three or more axles) to service deliveries and trips within a Borough and gain access to key corridors that are best designed to accommodate such trucks. A driver with an origin or destination for the purpose of delivery, loading or servicing within the respective Borough, may only operate such vehicle over the designated local network, except that an operator is permitted to travel off the Local Truck Routes to make a delivery and/or pickup. This shall be accomplished by leaving a designated truck route at the intersection that is nearest to their destination, proceeding by the most direct route, and then returning to the nearest designated truck route by the most direct route. If the operator has additional destinations in the same general area, they may proceed by the most direct route to their destination without returning to a designated truck route, provided that the operator's next destination does not require that they cross a designated truck route.

Limited Local Truck Routes

Limited Local Truck Routes only apply to Staten Island. These routes are restricted to commercial vehicles with 2 axles and no more than 6 tires, and prohibit vehicles with three or more axles. If a truck is traveling on either a local or limited local truck route, and is stopped by a law enforcement agent, who determines that the truck is not making a nearby pickup, delivery via their bill of lading or is having their vehicle serviced, then they can receive a traffic summons.

*Limited Truck Zones*

Limited truck zones are located only in Manhattan. These zones are in effect 24 hours a day, seven days a week and limit through truck traffic to certain designated streets, only if such vehicles are making local deliveries. These zones are located in: Chelsea, Chinatown, Greenwich Village, Little Italy, and the Lower East Side. The Garment District also has a similar

truck movement restriction, but it is only in effect from 9:00 AM to 5:00 PM, Monday through Friday. In addition, there are limitations in Midtown and the Financial District on the maximum length of vehicles, limiting these vehicles to 33 feet or less during various times of the Day.

The following Figures illustrate the Truck Routes for each of the five Boroughs:

**Figure 2- 4: Bronx Truck Route Map**

**Figure 2- 5: Brooklyn Truck Route Map**

**Figure 2- 6: Lower Manhattan Truck Route Map**

**Figure 2- 7: Manhattan Truck Route Map**

**Figure 2- 8: Queens Truck Route Map**

**Figure 2- 9: Staten Island Truck Route Map**

*New York City Dimensional Restrictions*

As discussed earlier, the regulations currently in place in New York City are more stringent than the established state regulations pertaining to vehicle dimensions and weights. These regulations and size limits have remained constant over the past 30 years. This is due in large part to the City's aging infrastructure and roadway alignments which make travel by larger vehicles more difficult due to substandard geometric constraints on many of the city's roadways. In addition, states are permitted to impose lower weight limits than the Federal limits on Interstate highways, if a bridge cannot safely accommodate vehicles up to the 80,000 lbs weight limit. Such is the case in New York City, when vehicles weighed much less than they currently do and the volume of traffic traversing the bridges was not as heavy as it is today.

The current restrictions are as follows:

- Vehicles not exceeding 13'6" in height, 8' in width, and 55' in length can travel on Interstates and truck routes.
- Vehicles exceeding any of these dimensions must obtain a daily over-dimensional vehicles permit for each trip (going and coming back).
- Exception: Federal STAA vehicles not exceeding 13'6" in height, 8'6" in width, 48' trailer length, and the lower of the bridge formula weight or 80,000 pounds, moving household goods can travel on Interstates and truck routes.
- STAA vehicles not moving household goods are limited to one-mile access to and from the exit.
- 53-foot trailers are limited to travel only on portions of I-95, I-695, I-295, and I-495 from the Bronx-Westchester County line to the Queens-Nassau County line. 53-foot trailers carrying non-divisible loads must apply for a New York City Permit.
- Maximum weight limit for vehicles is 73,280 pounds or less, depending upon axle spacing. The legal weight limits are found below in Table 2-3

**Table 2-3: Legal Truck Weights in New York City**

| Per Inch of Tire Width | Any One Wheel | Any One Axle | Any Two Axles 2 | 3 or More Axles |
|---|---|---|---|---|
| 800 lbs | 11,200 lbs | 22,400 lbs | 36,000 lbs | 73,280 lbs [3] |
| | | | | |

**NOTES:**

ALL vehicles must obey posted capacity or height clearance of all structures.

1. A Vehicle equipped with solid rubber tires is permitted up to 80% of legal load for pneumatic tires.
2. When such axles are spaced less than 10 feet, but not less than 46".
3. Maximum weight limit is computed as 34,000 lbs + 1,000 lbs per foot of the distance from the center of the foremost to the rear axles. 73,280 lbs is the outer limit for all cases.

*New York City Truck Dimensions and Access*

As discussed previously, there is a system of federally designated highways commonly referred to as the National Network, which are bound by federal STAA regulations. Within New York City, these vehicles are allowed to operate on a limited number of roadways and under certain stipulations in accordance with the STAA bill.

The most common carrier and classification of trucks in New York City are those that are not carrying household goods. Under this subset, 48' trailers not moving household goods, regardless of total length, up to 13'-6" in height and 102 inches (8'–6") in width are allowed to travel along the Interstate and *within one mile of the exit*. According to the New York State Department of Transportation, STAA vehicles may operate on all highways (State and Local) within one mile of the National Network (Qualifying Highways) *using the most reasonable and practical route available, except for specific safety reasons on specific routes*. These vehicles may not travel off an Access Highway for any distance. For vehicles moving household goods, this subset includes 48' trailers, regardless of total length, up to 13'-6" in height and 102 inches (8'-6") in width to travel on the Interstate system, as well as the local and through truck routes. However, "household goods" are generally considered a divisible load.

Also, as discussed previously, the total length limitation for a vehicle not operating pursuant to the STAA bill in New York City is 55 feet in total length. These vehicles may be up to 13' 6" in height and 8' (96 inches) in length. These vehicles are allowed full access on the Interstate, Local and Through Networks. In addition, daily overdimensional permits are issues only for non-divisible loads except for vehicles hauling poles, girders, column or similar loads, where a permit is required if the total length exceeds 60 feet.

Finally, 53 foot trailers are limited to travel only on certain portions of I-95, I-295, I-695 and I-495 from the Bronx-Westchester line to the Queens-Nassau County line. However, 53-foot trailers carrying non-divisible loads are required to apply for a New York City permit to legally non-designated routes in New York City

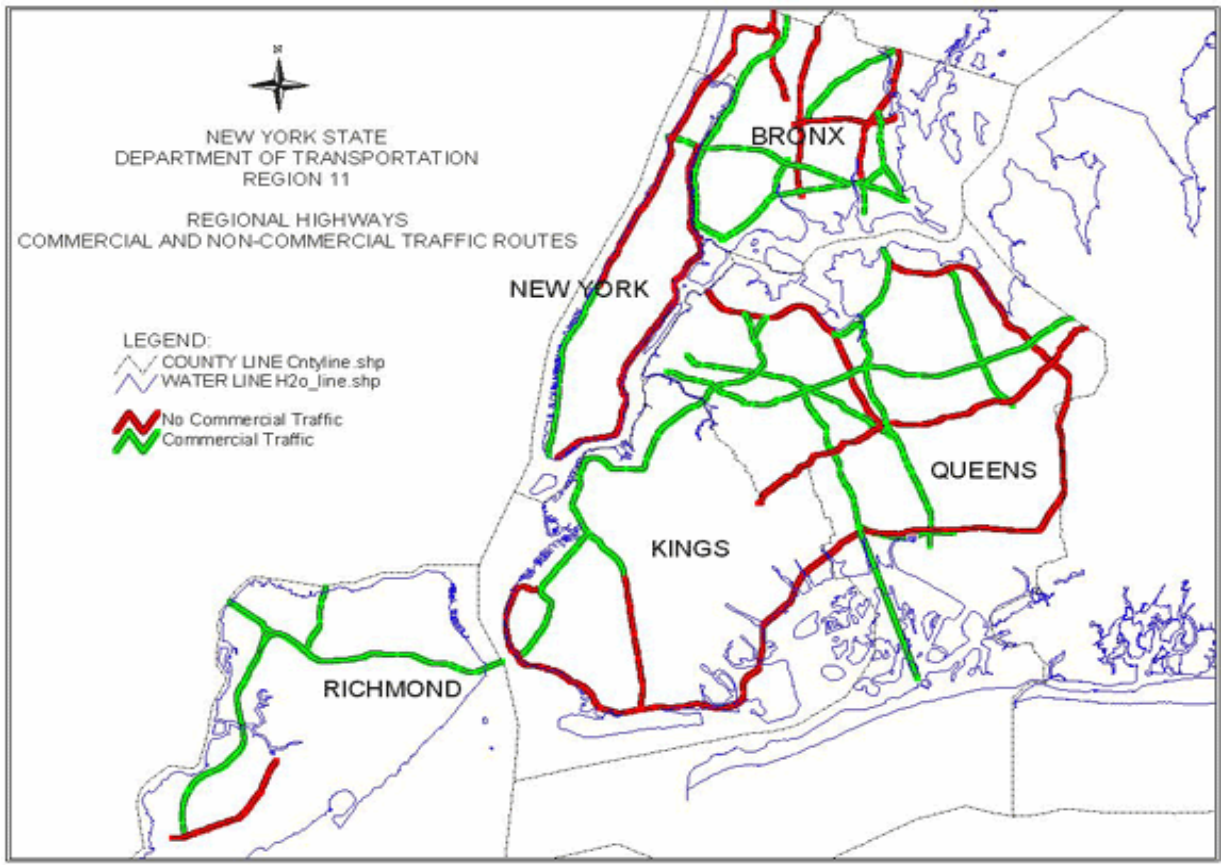
Overall, these differences in regulations, coupled with the STAA regulations have created a complicated system for drivers to effectively be aware of what roadways allow which type of vehicle. These differences and issues will be discussed further in the following section.

*Parkway Prohibition of Commercial Vehicles*

New York State and New York City prohibit all truck and commercial vehicles (vans, pick up trucks, panel trucks) from traveling on "parkways", which are designed for passenger-car use. The NYSDOT – Region 11 (New York City) office has posted on its' website in an area entitled "Highways for Commercial Traffic" that commercial traffic includes all vehicles with commercial license plates and buses. They further state that these restrictions are necessary because several bridges over New York City's parkways have low clearances prohibiting tall vehicles from crossing under them.[18] Figure 2-10 shows the NYSDOT Region 11 regional highways that do and do not allow the movement of commercial vehicles.

[18] New York State Department of Transportation. http://www.dot.state.ny.us/reg/r11/r11glance/page3.html. July 29, 2004.

**Figure 2-10: New York State Commercial Traffic Routes in New York City**




However, there are two exceptions in the City for allowing commercial vehicles on parkways. The first exception is on a portion of the Grand Central Parkway (GCP) in Astoria, which allows commercial vehicles under 12'-6" in height to travel on a limited portion of the GCP between the Triborough Bridge and the Brooklyn-Queens Expressway. The second exception is that buses are allowed to travel along NYSDOT traffic routes showing "no commercial traffic", as long as they obtain the proper vehicle permit from the NYCDOT.

*Restrictions on Access by Commercial Vehicles on Local Arterials*

Prior to the 1974 studies, there were several roadways that were defined as "Truck-Free" or "Truck-Restricted". The universe of Truck-Free roadways precluded any vehicle that had a commercial license plate, and did not allow commercial vehicles to operate, enter, stop, stand or park on any of the designated streets. These included roadways such as the Brooklyn Bridge, Henry Hudson Parkway, West Side Highway (W. 46th Street to W. 72nd Street). Like the "Truck-Free" roadways, the "Truck-Restricted" streets applied to any vehicle bearing a commercial license place. The intent of the restriction was that no truck shall operate, enter, stand, stop, or park their vehicle on any of the designated streets at any time, except for the purpose of delivery, loading or servicing on said street. The driver would enter (leave) the truck restricted street via the closest available street leading from (to) a designated truck route in the desired direction, subject to all other restrictions. While proposed, this language was not adopted into the Traffic Rules. This has made it difficult for drivers to find which streets are designated as "restricted" streets other than from on-street signage.

*Delineation of Truck Routes*

The City of New York delineates trucks routes through the use of signage. The City currently utilizes a variety of standards and sign designs to provide both positive and restrictive messages. The current signage system, as shown in Figure 2-11, is based upon a set of positive reinforcing signs providing drivers with routing instructions and delineating the designated truck routes. In certain cases, negative signage is also places at locations throughout the City, indicating restrictions for commercial vehicles. Typically, these signs do not constitute an outright prohibition on trucks, but limit access to local deliveries. The positive signs that have a white background with black lettering that conform to MUTCD standards carries regulatory authority while the common application of the green background and white lettering that is used in variety of application does not. Additional information on the issues relating to the current application of signage is presented in *Technical Memorandum 3, Signage Program* . It should be noted that negative signage need not be present to enforce the truck route regulations.

**Figure 2-11: Truck Route Signage**


Curbside Regulations

The Department of Transportation puts a strong emphasis on providing parking opportunities for commercial vehicles throughout the City. One of the most ambitious examples includes the Midtown Commercial Vehicle program. Begun in 2000 and expanded in April 2003, the Department implemented a program that charges vehicles a fee depending on the amount of time spent at the loading zone during the busiest times of the day (7:00 AM to 6:00 PM). Commercial Vehicles are charged $2 for one hour, $5 for two hours and $9 for three hours of parking for loading and unloading. Commercial vehicles are not permitted to stand on streets in this area of Manhattan (43rd to 59th Streets from 2nd to 9th Avenues) from 7AM to 7 PM unless they have parked, purchased and displayed receipt on dashboard in parking spaces controlled by muni-meters. This graduated pricing structure maximizes curbside utilization by encouraging turnover of commercial vehicles.

The use of muni-meter parking areas is limited to a maximum of up to three hours. Businesses are able to purchase debit cards with memory chips for use by their drivers, who are thereby not required to carry any cash for the meters.

Vehicles with commercial plates, regardless of type or size of vehicle are prohibited from parking on residential streets between the hours of 9:00 PM and 5:00 AM. When parking is not restricted, a commercial vehicle cannot be parked in any area, including residential areas, for more than three hours. Except where otherwise restricted, from 14th Street to 60th Street, 1st Avenue to 8th Avenue, between 7:00 AM and 7:00 PM daily, except Sunday, vehicles must park parallel and close to the curb, occupy no more than ten feet of roadway space from the nearest curb, not be backed into a parking space at an angle, and parked for no more than three hours.

Within the "Blue Zone" of Manhattan (from the northern property line of Frankfort Street, the northern property line of Dover Street, the eastern property line of South Street, the western property line of State Street, the centerline of Broadway and the centerline of Park Row) parking in not permitted Monday through Friday from 7:00 AM to 7:00 PM, unless ordered to do so by a law enforcement officer or permitted by posting of signage. Parking in the Garment District (35th Street to 41st Street, between Avenue of the Americas and 8th Avenue) to load and unload goods, between the hours of 7:00 AM and 7:00 PM, including Sundays, is restricted to trucks and vans bearing commercial plates, unless otherwise signed. Parking is not permitted in the limited truck zones of lower Manhattan (Chelsea, Chinatown, Greenwich Village, Little Italy, and Lower East Side), except to make a delivery, load or service a vehicle within the zone.

Throughout the City trucks are not permitted to idle for more than three minutes while parking, standing or stopping unless the engine is being used to operate a load, unloading or processing device. Trucks are also permitted to double-park if there is no available parking or designated loading zone within 100 feet of their delivery area, parking is permitted at the curb, and the vehicle is actually being loaded or unloaded at the same time when they are double parked.

*Permitting of Overdimensional Vehicles*

The New York City Department of Transportation employs a different permitting system than the one currently in place by the New York State Department of Transportation. The State entities (the New York State Department of Transportation, the New York State Thruway Authority and the New York State Bridge Authority) have each established procedures for permitting vehicles that are over legal dimensions and/or weight across the highways which they own and operate in a manner that ensures public safety.

The primary difference between the City and State permitting process relates to the fact that the City does not issue over-dimensional permits for divisible loads. It should be noted that a NYSDOT Divisible Load Permit does not authorize the operation at permit weights over local roads or roadways under the jurisdiction of the New York State Thruway, MTA Bridges and Tunnels, the New York State Bridge Authority and any other Bridge or Tunnel Authority or any roadway within the boundaries of New York City

Generally, the permits issues by NYCDOT are daily permits and are required for each trip (going and coming back). Vehicle operators can call the City of New York's 311 number to obtain information on how to acquire the proper daily permit for over-dimensional vehicles.

## Figure 2-12: Overdimensional Truck Permit Policies

**OVERDIMENSIONAL TRUCK PERMIT POLICIES**

| Width | Length | Height | Weight | Time of Travel & Stipulation | Access Restrictions |
|---|---|---|---|---|---|
| **SURVEY REQUIREMENTS** | | | | | |
| >12' | >80' | >14' | >150,000lbs | | |
| **POLICE ESCORT REQUIREMENTS** | | | | | |
| >16'(2Lane H'Way) & 18"(MultiLane H'Way) | >140'/>200' | >16' | 200,000lbs | 140' on Two Lane & 200' on Multi Lane Highways | In addition to Police Escorts, Certified Escort; **is required. Also required when special conditions exist as deemed necessary by DOT** |
| **TIME OF TRAVEL** | | | | | |
| 8'1" to 10' | <100' | | | Mon-Thurs 10 am-4 pm(160) & Fri 10am-3pm(161) | Truck Routes |
| >10' | <100' | | | Mon-Thurs:10pm-5:30am (162) Sat:12:01-5:30am-FriNite(163) Mon:12:01-5:30am-SunNite(164) | NO DAY MOVES, Except Interstates/Truck Routes |
| 10'1"-11'11" | <100 | | | Mon-Fri:11am-2pm(166) | GW Bridge, ONLY Interstate on (I95,I678,I295, I495) No Local Streets |
| - | >100' | | | Mon-Thurs:10pm-5:30am | NO DAY MOVES/Truck Routes |
| | | | | **No moves allowed on Friday before Midnight** | |

**STIPULATIONS**

| Width | Length | Height | Weight | Stipulation | Description |
|---|---|---|---|---|---|
| | | | | | All oversize vehicles must have front and rear Red warning flags at least 24" square |
| >10' | | | | 167 | Two flashing yellow lights at each end |
| >11' | OR>65' | | | 168 | When traveling Non-Interstate, must have a rear escort vehicle + the sign. All others, (on Interstate)must have "Over-size Load" sign. |
| >14' | | | | 169,171 | A lead escort and a rear escort vehicle, equipped **With "Over-size Load" sign.** Note 169 excludes 168 if it applies. |
| | >55' | | | 170 | Clearance lights at 20' intervals along the sides **When traveling at night only.** |
| >14' | OR>80' | OR **>13'6"** | | 171 | Warning sign and two steady yellow lights attached **To the rear of the load.** |
| | >100 | OR >15' | | 16+Height Pole | Manually typed: 169+Proper height pole attached & rear escort vehicle, both with "Over-sized Load signs |

STIPULATIONS: **(160)** Oversize Day Travel 10AM-4PM, **(161)** Oversize Day Travel 10AM-3PM-FRIDAYS, **(166)** Oversize Day Travel 11AM-2PM **(Interstate Only)** **(162)** Oversize Night Travel 10PM-5:30AM, **(163)** Oversize Night Travel 12:01AM-5:30AM-**SATURDAYS**, **(164)** Oversize Night Travel 12:01AM-5:30AM, **MONDAYS**

It should be noted that the City dimensional restrictions may be different than those in place on many of the region's tolled bridge and tunnel facilities operated by the MTA Bridges and Tunnels and the Port Authority. The rules at these facilities vary, however in many cases the regulations vary in terms of providing for both weights and lengths that are either higher or lower than those in place on New York City arterials. For example, the Holland Tunnel limits vehicles to a maximum width of eight feet (8'), while the Lincoln Tunnel has a maximum width of eight feet six inches (8' 6")

## b. Responsibilities in Management of the Truck Route System within the New York City Department of Transportation

There are multiple units within NYCDOT that are involved in formulating, implementing and managing truck route plans, policies, and regulations. These units consist of the Office of Traffic Planning, Office of Signs and Markings, Division of Bridges, Office of Construction Management and Coordination, and the Joint Operations Traffic Center and Traffic Management Center. More recently, the DOT's Office of Strategic Planning has been charged with some responsibility for the management of the Truck Route Network, as it pertains to the Truck Route Study.

Currently, the Office of Traffic Planning and the Office of Strategic Planning are responsible for analyzing truck route issues and drafting regulations and policies. Many of the truck route studies, such as those in Red Hook and Hunts Point were conducted by the Office of Traffic Planning. They also represent the NYCDOT in coordination efforts with Federal, state and other city and public agencies. This Office of Traffic Planning is also responsible for CEQR and project analysis and, accordingly, has significant impact in the overall management of truck traffic citywide.

The Office of Signs and Markings in the Traffic Operations Bureau is responsible for the safe and efficient movement of motor vehicles (including trucks), bicycles and pedestrians utilizing signs, markings and other traffic control devices. The Office of Signs and Markings maintains in a state of good repair 1.3 million traffic signs and 69 million feet of roadway markings citywide utilizing in-house staff and contractors.

The Division of Bridges is responsible for hundreds of bridges in New York City, including the eight major East River and Harlem River crossings. NYCDOT does not oversee any tolled bridges or tunnels. The bridges not under NYCDOT jurisdiction are the responsibility of the Metropolitan Transportation Authority or the Port Authority of New York and New Jersey. The Division of Bridges also houses the NYCDOT Truck Permit office and is responsible for permitting over-dimensional vehicles to travel within the City of New York.

The Office of Construction Management and Coordination (OCMC) develops the construction activity traffic stipulations for permits to ensure that road work impacts are minimized on the local businesses, traveling public, and residents. The OCMC Streets unit reviews all roadway and building construction on City streets and non-tolled bridges, and develops traffic operating procedures for daily permits or capital construction projects. These permit requests originate from the construction industry and other governmental agencies. OCMC Streets interfaces with the rest of NYCDOT and NYSDOT, resident engineers, City agencies, Community Boards, elected officials and the general public to resolve construction issues or problems related to traffic, and works closely with the major utilities to ensure that their scheduled work is done expediently and with the least impact upon the public.

OCMC Highways is responsible for coordination and enforcement of the City's review for any construction on limited access highways, expressways, parkways or toll bridges. The projects normally involving this office are long-term capital projects currently averaging more than $3.3 billion in construction cost. This office's responsibilities include: reviewing the impact of these projects, determining appropriate days and hours of operation, developing work time stipulations, lane availability stipulations and necessary detours; acting as the focal point for

securing all necessary consents and permits required of City and other agencies; preparing Maintenance and Protection of Traffic (MPT) requirements for the construction stages, developing operational procedures and providing locations of storage areas.

NYCDOT does not oversee capital construction projects on the City's streets and highways. Under a reorganization of City agencies that took place in 1996, this responsibility was transferred to the Department of Design and Construction (DDC).

The Joint Traffic Management Center Traffic (JTMC), is a joint operation between the NYCDOT, NYSDOT and NYPD. The current JTMC operation monitors 225 traffic video surveillance cameras, 20 fixed variable message signs and 20 portable variable message signs. The NYCDOT Traffic Management Center maintains an intersection management operation for 6,000 computerized centrally controlled signalized intersections and a website that shows 100 cameras posted along most of the critical locations in the City.

## c. Additional Regulations in Effect in New York City

Apart from the New York City and State Department of Transportations, the Port Authority of New York and New Jersey and the Metropolitan Transportation Authority – Bridges and Tunnels have regulations which govern truck movements into and out of the City. These regulations are typically not concurrent with City regulations. In some cases, the limitations may be more restrictive on certain facilities, while on others, more lenient and in line with the existing state regulations. In addition, at Tunnel facilities operated by both the MTA Bridges and Tunnels and the Port Authority, there are specialized restrictions that are in place due to the geometric constraints of these facilities. For the most part, all tunnel facilities were built over 50 years ago and are not designed for the larger, heavier and taller vehicles commonplace today.

*Port Authority of New York and New Jersey*

The PANYNJ is responsible for the operation and management of all tunnel and bridge crossings linking New Jersey and New York City. The PANYNJ provides vehicular access on the following crossings: Holland Tunnel, Lincoln Tunnel, George Washington Bridge, Goethals Bridge, Outerbridge Crossing, and Bayonne Bridge. In addition to the truck width, length and weight restrictions mandated in the PANYNJ Traffic Rules and Regulations, the PANYNJ has some regulations in place at certain facilities that affect the movement of trucks. One of the most notable restrictions is at the Holland Tunnel where access is limited to trucks and commercial vehicles only in Class 1,2 & 3 (small two and three-axle single-unit trucks with a maximum width of 96”). There is a ban on larger single unit vehicles and all tractor trailers in Class 4, 5, & 6. In addition, commercial traffic is banned from entering the Holland Tunnel eastbound into New York City and encouraged to use the Lincoln Tunnel and George Washington Bridge as alternates. The Holland Tunnel also has a 12 foot, 6 inch limit on height.

At the Lincoln Tunnel, widths are limited to 96 inches (8 feet) , while all bridges operated by the Port Authority have 102 inch ( 8 feet, 6 inches) regulations. Height Limits at the Holland Tunnel are 13 feet. It should also be noted that the George Washington Bridge limits commercial traffic to the upper level of the bridge. This was implemented after 9/11 for security purposes. While trucks are legally entitled to travel over these bridges, they still require permits for 102” trucks.
Metropolitan Transportation Authority (MTA) – Bridges and Tunnels

MTA Bridges and Tunnels is responsible for the operation of several bridge and tunnel crossings that link portions of New York City. These include the following crossings: Triborough Bridge, Throgs Neck Bridge, Verrazano-Narrows Bridge, Bronx-Whitestone Bridge, Henry Hudson Bridge, Marine Parkway Gil Hodges Memorial Bridge, Cross Bay Veterans Memorial Bridge, Brooklyn Battery Tunnel and the Queens Midtown Tunnel. In addition to width, length and weight restrictions that are different from those established by New York City, there are some restrictions in place that have an impact on truck flows within the City. The most notable instance is the current restrictions on the Throgs Neck Bridge, where the MTA has recently begun to enforce the 80,000 lbs restriction on the bridge. In this case, vehicles are limited to traveling in the two center lanes of the bridge and time of day restrictions and maximum weight restrictions over the 80,000 lbs restriction are in place. While these vehicles may be legally crossing the bridge, their travel on City arterials is not. While many of these trips are confined to the Interstate system which can handle these types of loads, there are instances of these vehicles either originating or ending their trips from locations within the confines of the City

## d. City Regulations – Issues and Concerns

One of the most common issues affecting the management of truck traffic in New York City is the difficulty in understanding the regulations currently in place by all relevant agencies and transportation providers. This includes the regulations taken on their own or in combination with the regulations established on either another level or by another agency. These issues are described in detail in this section:

### i. Review of City Traffic Rules

On the local level, the City has established its own rules and regulations to govern truck traffic. These regulations have commonly been cited by truckers and drivers about their ambiguity or lack of clarity. Based on a review of the Traffic Rules, the following problems were identified:

1. A “truck” is defined in Section 4-13 (a)(1) as “any vehicle or combination of vehicles designed for the transportation of property which has either of the following characteristics: two axles, six tires; or three or more axles.” This definition is less stringent than the definition of a truck as defined in Section 4-01 of the Traffic Rules as applied to parking regulations. Based on this definition, “commercial vehicles” are defined as having commercial plates, permanently altered rear seats, display of registrants name and address permanently affixed in characters at least three inches high on both sides of the vehicle in a contrasting color, and being used primarily to transport property or for commercial service. Also, those vehicle bearing commercial or equivalent registration plates from other states or countries shall not be deemed trucks or commercial vehicles unless they are permanently altered and marked. In Section 4-01 the definition of a “truck” for the purpose of parking is the same as listed for a commercial vehicle as defined in Section 4-01, with the exception that vehicles with two axles, four tires are allowed to park their vehicles within the Garment District of midtown Manhattan. This restriction, although for a small area, would preclude some of t e smaller panel vans and trucks used by an increasing number of businesses and overnight courier companies. For the most part, New York City is unique in definitions based upon operating situations.

From the driver's perspective, these two definitions may create some confusion when determining their vehicles applicability to truck routes and commercial parking. Complicating matters even farther is the New York State Department of Motor Vehicle (DMV) definition of commercial vehicles and trucks.

2. The truck route maps for each of the Boroughs do not completely correspond to the narrative description of the Through and Local Truck Routes as contained in Section 4-13 of the Traffic Rules. Prior to the implementation of this Study, the existing maps were difficult to decipher and understand. In addition, because of the design and format of the maps, some streets in the narrative are not shown on the Borough truck route maps.

3. The Borough of Staten Island includes a third category of truck route – "Limited Local Truck Route Network", which is not shown on the truck route map. Only trucks with two axles, six tires may use the Limited Local Truck Route Network. Thus, truck drivers that rely on the map and do not read the narrative would assume that trucks could use those streets designated as part of the Limited Local Truck Route Network.[19]

4. While changes in street names that have occurred during the past 20 years are shown on the maps, the changes are not always reflected in the narrative of the regulations. In other cases, the spelling of street names may be incorrect.

5. There is inconsistency in the listing of certain streets as both Through Truck Route streets and Local Truck Route streets. Some of the streets that are Through Truck Route streets are also listed as Local Truck Route streets. For example in Staten Island, Richmond Parkway is listed as part of both the Through and Local Truck Route Networks. There are also instances where service roads of highways may or may not be designated as truck routes, or within different route classifications.

6. Some streets that cross Boroughs are designated as part of the Through Truck Route Network in one Borough but are only part of the Local Truck Route Network in the adjacent Borough. For example, Grand Avenue is a Through Truck Route in Queens but changes to a Local Truck Route street in Brooklyn. In this instance, the routing favors an eastbound movement from Brooklyn. However, an westbound truck from Queens traveling outside the borough would encounter the local designation once entering Brooklyn and would be operating illegally on the route.

7. The term "Local Delivery" is not defined in the Traffic Rules. This language, typically used on restrictive or negative signage, has varying interpretations. It is generally assumed that these signs refer to the immediate corridor where the sign is posted. Given that the Truck Route Network represents only 5% of the roadway network, trucks are legally allowed to operate on the rest of the roadways to access their destination. In general, drivers should not be required to travel more than ½ mile of a route to access their destination, and should do so at the intersection closest to their destination and via the most direct and reasonable route. In addition, there are no specific provisions for roadway restrictions for commercial vehicles.

8. Only the Borough of Manhattan definition for Local Truck Routes (Section 4-13 (d)(2)) provides language in the routing requirements that the movement of trucks should take into account existing street directions and turn restrictions. This is due to the fact that

there are many locations citywide whereby turning restrictions may be in place at intersecting truck routes. Accordingly, vehicles are required to follow these regulations and utilize the most direct route that is consistent with these restrictions.

9. The Traffic Rules only provide a limited number of the height restrictions citywide. In addition, the height restrictions that are listed do not encompass all of the height restrictions that exist along the designated routes. It is estimated that there are several hundred locations where there are clearance restrictions, many of which are on streets that provide local access for trucks. In addition, the stated height restrictions are dated and may not reflect actual field conditions. Currently, there is no detailed listing of these restrictions or resources advising motorists of the protocol for posting of this signage. As detailed in Technical Memorandum 3: Signage. State regulations stipulate that Vertical Clearance signs be posted one foot under the actual width.

10. At numerous locations citywide and in some of the Special Restriction Zones, there is a length limitation of 33 feet. This regulation dates back to before the previous Truck Route Study. Prior to this study, the 33 foot limit was the maximum limit for vehicles that did not have to follow the Truck Route Network, and as a result, this criteria was used to limit access by larger trucks. In addition, these dimensions were considered the de-facto standard for single unit trucks. However, with the regulations adopted in the 1970s and early 1980s, the maximum size for a single unit truck as stipulated in the City's Traffic Rules is 35 feet. There are some Single-Unit trucks that fall between 33 and 35 feet. From a driver's perspective, this is sometimes confusing in terms of understanding maximum dimensions

11. Existing regulations prohibit Through Truck Trips along 34$^{th}$ Street between the hours of 11:00 AM and 6:00 PM. With the existing restrictions on the Holland Tunnel, especially in the inbound direction, truck traffic cannot legally travel from New Jersey to Queens and vice versa. In addition, vehicles that would be traveling from Lower Manhattan to the other boroughs via the Queens Midtown Tunnel or the Lincoln Tunnel would also be illegal during the specified times.

12. The bridges connecting boroughs are not included in the Truck Route regulations in Section 4-13. The limits of each truck route corridor are broken down into segments with distinct starting and end points. For example, in the borough Brooklyn, the approach to the Manhattan Bridge is designated as the Flatbush Extension from the Manhattan Bridge to Fulton Street and on the Manhattan side Canal Street is designated as a Through Route from the Manhattan Bridge to West Street, even though Canal Street continues to be a local route past this location to Chrystie Street. One particular location that has been identified as problematic is the Pulaski Bridge connecting Brooklyn and Queens. There are no corresponding references to this route in the regulations as the bridge approaches only intersect the existing truck routes. In addition, these bridges have approaches which are not always classified or included in the regulations, as well as routing restrictions in terms of access to/from certain roadways on the structures themselves.

13. It is unclear if the service roads of the Expressways and Interstates in New York City are bound by the existing traffic rules governing truck movements. In many cases, the service roads are an extension of the roadways and are designated with identical names. For example, portions of the Long Island Expressway are signed as truck routes

while other locations are not. These roadways should be signed accordingly and entered into the Traffic Rules.

### ii. Issues Relating to Vehicle Dimensions

With the multitude of differing regulations in the downstate region, as well as different regulations established by the various transportation agencies in the region (MTA Bridges and Tunnels, Port Authority of New York & New Jersey, New York State Department of Transportation, and the City Department of Transportation), trucks operate in a constrained environment in New York City. Most interstates outside of New York City were designed to accommodate truck trailers that are 102-inches wide, 13'-6" high, and 53 feet or more in length (unlimited combined cab and trailer length) While trucks of this size are permitted access to several of the regions bridges and tunnels, they cannot safely travel on many of New York City's older bridges, tunnels, and roads due to vertical clearance restrictions, insufficient roadway widths, weight limits, lack of shoulders and tight curvature to name a few.

These are the primary reasons why the City has remained restrictive in their limitations on vehicle dimensions over the past 20 years as no major infrastructure improvements have been made to the transportation system that would allow for a relaxation of these rules.

It is argued that if longer and wider trailers are allowed to travel within New York City then truck productivity could be improved. (The difference is akin to the productivity boost the railroads gained by changing from single to double-stack container trains.) The case for larger trucks relates to the way in which freight is presently transported by truck. Freight moves on pallets or in containers for easy and quick loading and unloading. Wooden pallets are typically 4 feet by 4 feet or 8-feet wide by 4-feet long and containers are typically 10, 20, and 40 feet long with a nominal width of 8 feet. The exact exterior dimensions for one manufacturer of a 20-foot dry freight container is 19'-10½" long by 8'-0" wide.[20]

It is assumed that the 102-inch dimension on trailer width improves productivity. In the case of a typical trailer, the extra three inches on each side makes it possible to build the trailer so that the interior width is at least 8-feet. Eight-foot long pallets can now be stored widthwise across the trailer, or two 4-foot by 4-foot pallets can be stored side-by-side, increasing the carrying capacity by one hundred percent. Products such as plywood, hardboard, etc. that are manufactured in 8-foot lengths or widths, can be carried inside the trailer and fill the space. On open trailers, the same notion applies with ample room for tie-downs. For containers similarly designed to have interior dimensions of 8-feet, they can now sit on the trailer without an overhang. Wasted space is eliminated and productivity is increased.[21]

Trailers that are 102-inches wide by 53-foot long allow far greater productivity in transporting combinations of containers and pallets than does the maximum size trailer presently allowed within the City. It also prevents the load from shifting, thus improving the stability of the trailer.

[20] Rennselaer Polytechnic Institute, Polytechnic University, Cornell University, Region 11 University Transportation Research Center and Region 11 New York State Department of Transportation. *New York City Arterial Goods Movement Study*. March 5, 2003. Page 6-2.
[21] Ibid. 6-2.

*Issues Relating to the 55-Foot Total Length Restriction*

Within the confines of New York City, and on the City's arterials, the NYCDOT sets more stringent regulations on truck dimensions and access. The most striking difference between the City and surrounding regions relate to vehicle length. Semi-trailers, inclusive of both the cab and trailer are limited to 55-feet in total length.

Twenty years ago the 55 foot truck length limit was the design standard set forth in *"A Policy on Geometric Design of Highways and Streets"* by the American Association of State Highway and Transportation Officials (AASHTO) which is the guideline used by the Federal Highway Administration to help formulate Federal highway design standards. When the City developed the dimensional constraints over twenty years ago, the accepted truck size standards at that time in the highway design profession was for semi-trailers 55-feet in total length and 8'-6" in width. Of the three truck tractor-semi-trailer combinations mentioned in the AASHTO guidelines in 1982, the WB-50 was considered critical for design purposes. The WB-50 design vehicle was 55-feet in total length, which included the truck cab and the tractor-trailer combination, with the trailer section typically being up to 40-feet in length.[22]

Currently, many of the Interstate highways and truck routes in New York City can safely accommodate the WB-50 Intermediate semi-trailers that were the predominate semi-trailer commercial vehicle over 20 years ago, but not the larger trucks that are primarily operating outside of the City. For example, the WB-62 and WB-65 Interstate semi-trailers can have an overall length of 68'-5" and 73'-5", respectively. The WB-62 is the design vehicle with a 48-foot trailer as adopted by the STAA of 1982. The WB-65 is a design vehicle with a 53-foot trailer as grandfathered in the STAA of 1982. Furthermore, according to the last AASHTO design guide the WB-65 or 67 truck, which is 102-inches in width and up to 73'-5" should generally be the minimum size design vehicle considered for the design of intersections on freeway ramp terminals with arterial crossroads and for other intersections on state highways and industrialized streets that carry high volumes of traffic and/or that provide local access for large trucks.[23] Typically the WB-62 and WB-65 semi-trailers are 13'-6" in height which also presents a problem in New York City since there are dozens of locations throughout the City where such vehicles would not be able to meet the vertical height clearance restrictions.

However, industry has moved away from the smaller types of trailers as they are no longer being produced or service a distinct industry such the food industry or beverage distributors. Some of the more common smaller trailers also include the rail/waterborne containers placed on rolling chassis, all of which would typically fall under the 55-foot limit.

In reality, most truck operators are using trailers that present a challenging situation for tractor trailer operators. The bulk of tractor trailers in use today typically exceed the City's length restrictions. As per the STAA regulations, the federal guidelines and State Vehicle and Traffic Law establish the 48 foot trailer as the maximum trailer length that is not required to use the designated truck Access Highway system.[24] This restriction is only specific to the State Vehicle and Traffic Laws as the City of New York's Traffic Rules are only focused on the overall length of a trailer combination from bumper to bumper, cab inclusive, not the length of the trailer.

[22] "A Policy on Geometric Design of Highways and Streets", American Association of State Highway and Transportation Officials, @ 1984, Chapter II, pages 25-31.
[23] AASHTO, *A Policy on Geometric Design of Highways and Streets*, 2001, page18.
[24] http://www.dot.state.ny.us/traffic/desig_hwy.html

Therefore, in most cases the trailer portion of the tractor is under the legal length, but when it is attached to a power unit, it exceeds the total length restriction. For out-of-state drivers and for regional truck travel throughout the rest of the state, they may be more accustomed to the 65 foot limit in place on the rest of the State's non-designated roadways. In addition, the industry may not be able to tailor vehicles for specific use within the City. It should be noted that the State's rulebooks also govern allowable widths to 96" on all highways with less than 10 foot lanes, where specifically designated, and throughout New York City. Both the City and State rule books clearly state this element, however many of the new trailers regardless of length are 102" in width due to the logistical benefits of this design.

Enforcement of vehicles with trailers smaller than 48 feet but with an overall length between 55 and 65 feet is difficult due to the issues involved in effectively stopping and measuring the vehicles in the field, as well as the ability to clearly identify a vehicle as being overlength. In addition, it is not always clear if the vehicle is operating under the provisions of the STAA regulations.

*Issues relating to 65-Foot Trailers and Unlimited Overall Length*

One of the biggest issues relating to vehicle dimensions and truck travel in New York City is an understanding of the regulations relating to STAA vehicles over 55 feet and the limitations or boundaries of where they are allowed to operate. Currently, there is no signage that is posted to notify drivers of these length restrictions or STAA roadways, so compliance is dependent upon driver knowledge of the rules pertaining to truck access on New York Highways. This includes knowledge of which roadways constitute the National Network of Qualifying and Access Highways. While many drivers are made aware of the 53 foot restriction on City streets, they are also aware of the fact that federal regulations prohibit states from imposing a length restriction of less than 48 feet on a semi-trailer operating in a truck tractor – semi-trailer combination. There is also the perception that all Interstate roadways are part of the National Network, as well as the misconception that roadways part of the National Highway System (NHS) are part of the National Network of roadways and are applicable to the STAA rules.

The vehicles required to follow the National Network of roadways in New York State consist of the following vehicles: 48' (L) x 102" (W) trailers, twin 28'-6" (L) tandem trailers, maxicubes, triple saddlemounts, conventional auto carriers, stinger-steered auto carriers boat transporters and beverage semitrailers. In New York, STAA vehicles are a subset of a class of vehicles called special dimension vehicles. Special dimension vehicles include the above list plus one additional vehicle combination: 53' trailers with a 41' kingpin distance. However, the 53' trailers are limited to only a small portion of the network.

According to the State's *Official Description of Designated Qualifying and Access Highways in New York State*, the following roadways are the only identified Qualifying roadways, as the listing does not include Access Highways in New York City.

- I-87 (Major Deegan Expressway) - Bronx-Westchester County line (BRONX) to I-95 (BRONX); except that usage is restricted from the left lane.
- I-95 (Bruckner Expressway) - Bronx-Westchester County line (BRONX) to I-95 (Cross Bronx Expressway) (BRONX); except that usage is restricted from the left lane.
- I-295 (Cross Bronx Expressway) – I-95 (Bruckner Expressway) (BRONX) to I-295 (Clearview Expressway) (BRONX); except that usage is restricted from the left lane.
- I-295 (Clearview Expressway) – I-95 (Bruckner Expressway) (BRONX) to I-495 (Long Island Expressway) (QUEENS); except that usage is restricted from the left lane.
- I-495 (Long Island Expressway) – I-295 (QUEENS) to the Queens-Nassau County line: except that usage is restricted from the left.

The remaining interstate system (comprised of the entire I-278 corridor in Queens and Brooklyn and Staten Island, portions of the I-87 and I-495 and the I-678 corridor - Van Wyck and Whitestone Expressways) are not included in any description of Qualifying or Access Roadways by either the New York City or New York State Department of Transportation. The only reference to STAA regulations is in Section 4-15(a) (2) which specifies that "the provisions of this section shall not apply to any vehicle authorized by the Federal Surface Transportation Assistance Act of 1982, as amended, when such vehicle is operating pursuant to the provisions of such Act." In addition, on the NYCDOT website, there is the following reference, "Federal STAA vehicles not exceeding 13'6" in height, 8'6" in width, 48' trailer length, and the lower of the bridge formula weight or 80,000 pounds, moving household goods can travel on Interstates and truck routes. STAA vehicles not moving household goods are limited to one-mile access to and from the exit."[25]

In addition, some of the roadways not included in the official descriptions of the National Network include some interstate roadways that are not up to current interstate standards, as they were built over 70 years ago. This includes substandard geometries, inadequate lane widths, height and weight restrictions, chronic congestion and other operational and engineering constraints that would preclude larger vehicles from safely using these roadways.

In addition to the route designation, there are also issues relating to reasonable access. In New York State, Special Dimension Vehicles or STAA vehicles are permitted to operate on all highways within one road mile of Qualifying Highways (National Network) using the most reasonable and practical route available, except for specific safety reasons on individual routes. On Access Highways, they are required to stay on the designated corridor. On all other routes, and for vehicles not operating under the provisions of the STAA act, it is reasonable to assume these vehicles would be bound to the City's regulations.

Cumulatively, these regulations are difficult to decipher and understand what the applicable rules are in regard to vehicle access and movement to/from these roadways. The appropriate city, state and federal agencies should confer to clarify and reconcile issues relating to the STAA rules regarding allowable vehicle dimensions.

[25] http://www.nyc.gov/html/dot/html/permits/commperm.html

*Issues relating to 53-foot Truck access*

All trucks carrying trailers 53 feet or longer, regardless of what they are carrying, are prohibited from traveling within or through New York City, except for a portion of the Interstate System that allows regional 53 foot trailers to travel through the New York City region to points north and south, and areas to the east in Long Island. These larger tractor-trailer must utilize portions of the New England Thruway and Bruckner Expressway (I-95), the Throgs Neck Expressway/Throgs Neck Bridge (I-295) and portions of the Long Island Expressway (I-495) to accomplish this movement. As stated earlier, any 53' trailer with a non-divisible load making a delivery in New York City is required to obtain a permit

The use of 53 foot trailers on city streets is also problematic, as it occurs illegally in many areas throughout the City, given the fact that these containers have become the defacto "standard" by which freight is shipped in the United States. Freight typically moves on pallets or in containers for easy and quick loading and unloading. These pallets typically are 8 feet wide by 4 feet long and come in varying lengths. The typical dry van is built so that the interior of the trailer is 8 feet in width and two 4 foot by 8 foot pallets can be stored side by side or a single 8 foot pallet widthwise. The argument for such vehicles is increased productivity and the need for fewer trucks because of the increased carrying capacity of these vehicles. In some cases, haulers have resorted to maintaining two separate fleets one for deliveries to suburban warehouses (e.g. within New Jersey) that service the City and another for deliveries to locations in the City. This is especially true in regard to the Air Cargo industry and interests at John F. Kennedy Airport in Southeastern Queens. Several studies and recommendations by both industry and other governmental agencies have highlighted the need to expand the 53' route to Kennedy Airport along the Van Wyck Expressway which in its southern portion has undergone major improvements which were done in conjunction with the AirTrain project. In the northern portion of this roadway, from the Whitestone Bridge to the Kew Gardens Interchange, several improvements have already been completed or in the pipeline. One of the logistical benefits of this route to Kennedy Airport is the fact that the roadway has a terminus within the confines of the airport. Therefore, vehicles traveling to this destination are not required to leave the designated roadway at any point while traveling from the airport to points outside the City.

Another deficiency in the designation of the current 53-foot trailer route relates to the George Washington Bridge and Cross Bronx Expressway. This corridor is one of the most critical trade corridors in the nation. Although the George Washington Bridge (GWB) is part of the National Highway Network and can safely handle all of the larger trucks that are traveling in the United States, it is not a legally designated entry point by the City of New York for trucks that are hauling trailers greater than 48-feet in length or 96-inches in width. Although this is the only option for trucks with 53-foot trailers coming from the west of the Hudson River and headed towards Long Island and New England, New York City does not allow such trucks greater than 96-inches in width or 48-feet in length to travel in the City unless they are moving household goods to residences, obtain an oversized vehicle permit, or are traveling along the designated 53-long trailer route, which it is not part of.

## e. Compliance and the Role of Enforcement

The recommendations from the borough truck route studies completed between 1976 and 1981 produced the framework for the current truck route regulations. The truck routes were designed to be self-enforcing, guiding trucks to routes that were easily accessible, direct, free flowing and capable of sustaining heavy truck traffic. It is believed that the absence of informational signage should not annul the enforceability of the regulation. In some cases more direct or less congested routes existed, but these routes passed through areas that were highly residential. It was in these areas that instances of non-compliance was most likely to occur and where enforcement efforts would be focused.

The adopted truck route regulations were supposed to promote compliance in the following ways:

1. The proposed local Truck Route Network was designated in sufficient detail to leave no area more than a mile from a designated truck route.

2. A comprehensive and uniform truck route signing program was recommended to aid drivers in locating routes and staying on them.

Enforcement was facilitated by:

1. Requiring only an axle-tire count to determine if a truck was governed by the truck route regulation. Previously, the truck had to be stopped and measured in order to determine its applicability under existing regulations.

2. Requiring a truck driver to carry written evidence of his origin and destination, thereby enabling a police officer to determine whether an infraction had occurred.

While verification was simplified, the public's perception has been that the truck route regulations are not being enforced. The ideal enforcement strategy of assigning a number of police officers to patrol the streets on a full-time basis, or even a more realistic part-time basis, has been infeasible due to other pressing needs for the deployment of NYPD officers (especially after 9/11), the high volume of truck traffic on City streets, and other traffic enforcement that is done by the NYPD.

Today, the promulgation of the truck route regulations involves various City and State agencies and departments. The NYCDOT is responsible for the development of regulations for traffic operations and parking on the City streets. Enforcement is primarily the responsibility of the NYPD. Finally, the Administrative Law Courts of the New York State Department of Motor Vehicles are responsible for the adjudication of most of the summonses that are issued for truck route violations and moving violations. In addition, the Department of Finance is involved in the adjudication of curb-side violations and tickets for all motor vehicles, including commercial vehicles, as well as developing parking ticket programs for commercial vehicles. The Department of Finance is also involved in the collection of fees in relation to the Commercial Vehicle Tax Stamps.

Enforcement is performed by various groups within the NYPD. There are two distinct Bureaus that are responsible for enforcement. The first is the Patrol Serviced Bureau which encompasses the 76 precincts throughout the City, as well as the eight Borough Commands.

These units are tasked with overall law enforcement initiatives within their precincts. The precincts are supplemented by a Borough Task Force which deploys officers to those precincts that require additional manpower to staff specific operational initiatives. It should be noted that these officers have a multitude of tasks to perform, mainly ensuring the safety of the public while enhancing the quality of life for City residents.

The second NYPD unit focused on the enforcement of motor vehicle laws is the Transportation Division This group is charged with managing mobility on City streets while upholding and enforcing the traffic rules of New York City. Under the command of the Chief of Transportation is the Traffic Control Division (TCD). Within the TCD there are several distinct units charged with truck enforcement responsibilities. Within the Highway District, the Highway Patrol and Motor Carrier Units serve to enforce regulations on the City's limited access arterial network, while also targeting over-dimensional and unsafe vehicles. These units are primarily focused on the City's 186 miles of limited access highway. In addition, under the TCD are the Manhattan Traffic Task Force Motor Carrier Unit and the Truck Enforcement Unit which establish daily truck inspection stations within Manhattan with a focus on identifying trucks that are operating in an unsafe manner or should be pulled from service due to a safety or operational defect. Finally, Traffic Enforcement Agents (TEAs) are also involved in the enforcement of truck regulations. Most TEAs are deployed to direct traffic and to issue parking tickets and summonses for moving violations.

In most instances, police services in the communities are affected/influenced by the requests and/or complaints that the Borough Commanders receive from local Council members, Community Boards, NYCDOT and the public. One of the shortfalls of truck enforcement in the NYPD is that precinct officers have limited training in the truck route regulations. Given that precinct officers are tasked with a multitude of duties, there are few opportunities to assign officers on a regular basis to enforce truck route regulations. In addition, while illegal movement of trucks on non-designated truck routes may be concentrated in a few locations throughout the City, it is difficult to consistently and efficiently enforce the truck routing regulations along these roadways. For the most part, precincts tend to deploy selective enforcement initiatives based on complaints received within the respective neighborhoods. In some cases these efforts result in a high number of summonses over a relatively short duration of time. At other times, there may be a high number of legal truck movements on these routes and accordingly a limited number of summonses for illegal travel.

For the purposes of this study, the NYPD compiled a summary of the summonses that were issued by borough during October (833) and November (798) of 2003. This information suggests that some borough commands had focused more resources on issuing violations along truck routes than others. Precinct and patrol service bureaus in Queens North, Brooklyn South, Queens South and Brooklyn North were the most active in issuing truck route summonses to vehicles traveling off City designated truck routes. The highest number of summonses was issued in Queens North (521) and Brooklyn South (335).

At the outset of this study, a comprehensive mechanism had not been established by the NYPD to document truck-related violations. While TrafficStat provides some insight into this process, this information was not consistently tracked on a daily, weekly or monthly basis citywide, nor was the information easily broken down to track where, when and the type of violation or to identify trends and/or borough and citywide averages. Just as CompStat is used to measure changes in crime statistics, TrafficStat may be better utilized to monitor the effectiveness of strategies to ensure that truck complaints are addressed.

Some of the more frequent truck-related violations cited by the Borough Task Forces include: trucks traveling off-route, overweight trucks, and illegal parking. A primary cause for off-route and overweight violations is the utilization of high-technology software, specifically Global Positioning Systems (GPS) that truck companies use to select delivery travel routes. These GPS packages rely on software programs such as "Street Maps" or "MapQuest". While these software tools give accurate routings for automobiles, they do not identify truck routes, or provide information on weight, height, and width restrictions and are therefore not sufficient for trucks.

Another problem is truckers relying on regular maps sold by companies such as Hagstrom and Rand McNally. These maps delineate streets designated as principal arterials in yellow and truckers assume that they can travel along these streets. The AASHTO design manual indicates that the principal arterial system serves the major centers of activity of urbanized areas, the highest traffic volume corridors and carries most of the trips entering and leaving the urban area as well as most of the through movements.[26] However, not all of the principal arterials are designated truck routes. This issue is discussed in more detail in *Technical Memorandum 4, Education Program*.

Based on feedback from the NYPD Sergeants from the precincts, the Borough Task Forces and the Supervisor of the Administrative Law Judges, a major cause of the dismissal of truck summonses may be attributed to the judges' lack of understanding of the truck route regulations. For example, in August 2004 78% of summonses issued in Staten Island were found not guilty or dismissed versus 38% in Manhattan North, with the City-wide average being 51%. There is no clear explanation for the differences in the rates in which summonses issued to truck drivers are guilty or not guilty. However, two key factors can partially explain the differences: (1) some law enforcement officers are not filling out tickets properly, and (2) some administrative law judges are misinterpreting the regulations and fail to uphold the regulations.y.

Truck Enforcement Strategies

The NYPD and NYCDOT are working together to develop citywide enforcement strategies. Borough Commands have implemented different initiatives to address specific truck problems. For example, the NYPD Queens South Task Force implemented the Boot, Enforcement, Summons Truck (B.E.S.T) Program as a means to help combat parking violations. The B.E.S.T program focuses on trucks that commit overnight parking violations.[27] This program was initially begun as a pilot and is being considered for expansion given the success it has had in reducing the amount of overnight truck parking violators. Additionally, the Brooklyn South Task Force has undertaken successful initiatives by setting up checkpoints at various areas identified by the public as "trouble spots".

The NYPD and the Department of Transportation should use TrafficStat to gauge the effectiveness of specific strategies to reduce truck route violations and the City should implement a program to track truck-related violations and better identify those areas that warrant additional enforcement and/or engineering solutions. In addition, the Office of Freight Mobility should play an essential role in tracking problem areas and working collaboratively with

[26] A Policy on Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials, Chapter I, page 15.
[27] Meeting with New York City Department of Transportation, Edwards and Kelcey, Inc, New York Police Department, August 12, 2003.

the Police Department in enforcement initiatives, as well as utilizing traffic engineering tools to address truck issues both on and off route.

Most importantly, NYCDOT and the NYPD have begun to develop a comprehensive truck route education program for precinct personnel which is outlined in Technical Memorandum 4: Education Program. This includes the creation of a Truck Route Placard program in four precincts where patrol officers are provided the memo book inserts of the routes and applicable rules to help facilitate enforcement efforts.

# 3. CHANGES IN CONDITIONS SINCE THE ADOPTION OF THE NEW YORK CITY TRUCK ROUTE NETWORK AND REGULATIONS

This section reviews the growth in demand for goods movement; changes to the New York City's land use/zoning and its' implications; the City's roadway and bridge infrastructure needs; revisions to the United States Department of Transportation regulations governing truck dimensions and weights, revisions to the New York State Department of Transportation truck regulations; advances in truck fleet and equipment; revisions to truck operations; and changes to the City's Truck Route Network.

## a. Growth in Demand for Goods Movement

During the past 20 years the City has experienced a 35% increase in truck volumes with no significant change in the number of truck route miles (street capacity) to accommodate this demand. In addition, due to changed transportation and travel patterns, infrastructure to accommodate to these traffic patterns, conflicting regulations at the local, state and Federal levels, increased roadway congestion, changes in shipment methods (just-in-time delivery), and security issues resulting from 9/11, the trucking industry has been confronted with many roadblocks.

As the population of New York City and Long Island increases, the demand for consumer goods will increase, requiring increased freight movement. The flows of goods from trading partners to points to the west of New York City and international trade has continued to grow over the years and does not show any signs of changing. Although the growth of containerized international trade in the Ports of New York and New Jersey will take some of the burden off of the trucking industry, trucks will still be the primary mode to move goods from the ports to their final destinations.

Since the trucking industry is the major freight mode in terms of expenditures in the nation, failure to improve trucking industry operations will have a direct impact on the local, national and global economy. Most local deliveries will continue to be made by truck since the street and highway network provides access to all land parcels and there is a lack of rail sidings to service many of the distribution, industrial and manufacturing area of the City. As such, provisions need to be made to improve trucking industry operations in order to sustain the growth of the New York City economy.

## b. Land Use

Over the past thirty years, New York City's land use and development policies have recognized the changing role of the industrial sector from one of leading the local economy to that mainly of a supporting one. The evolution of the industrial sector towards distribution and away from manufacturing has made many industrial land uses more compatible with non-industrial land uses and activities. This compatibility has resulted in not only a broader mix of land uses in a wider variety of locations, but also the transformation of formerly industrial areas to vibrant mixed-use neighborhoods. In some sections of the City, the truck routes and regulations that were last comprehensively revised between 1974 to 1981 no longer conform to the change in land use from industrial and manufacturing to mixed use and residential, increasing some of the quality of life issues associated with this type of traffic on designated routes. An example is the Meatpacking District in Lower Manhattan. This area was one of the City's most regulated

neighborhoods following the previous truck study, however most of its industrial and commercial uses have since moved away from the area. In its place, residential and smaller scale commercial and retail establishments emerged. However, a substantial portion of the regulatory measures for the area are still intact.

Three themes reflect the changes in land use and zoning conditions in industrial areas since the last comprehensive revision of the New York City truck route regulations between 1974 and 1981. The three themes are related to: 1) the changing nature of industrial uses; 2) the relaxation of zoning regulations governing industrial and manufacturing areas to allow greater residential and mixed use; and 3) the arrival of "big box" retailing establishments. To complement these themes, six examples of industrial areas in Manhattan, the Bronx, Queens, and Brooklyn are presented.

### i. Theme #1: Redefinition of Industrial Uses

Since 1978, the definition of what is an "industrial use" has expanded and as a result, almost all of the land uses that are located in areas zoned for industrial uses are in fact, not production-based manufacturing but rather warehouse and distribution facilities for goods produced elsewhere. The production-based manufacturing uses that remain are small firms in niche markets such as food production, furniture design fabrication, and printing. These uses are no longer the environmentally harmful oil refineries and mass production plants of the past, but they do generate more truck trips.

The industrial sector increasingly provides products and services for firms and households in New York City and the surrounding region. There has been significant growth in food distributors; for example, one of the world's largest food distribution centers is located in the Hunts Point section of the Bronx. In addition to warehouse and distribution facilities, a large component of industrially zoned land area consists of government and public utility uses, including public transportation yards, airports, port facilities, water and sewer services, solid waste disposal, and vehicle and equipment parking. As indicated elsewhere, JFK air cargo activities generate nearly 8,500 truck trips daily.

The most recent uses to be considered industrial use are automotive repair facilities, such as body shops, car painting and salvage operations, and parking lots. According to "Making it in New York", a report released by the Municipal Arts Society (MAS) and the Pratt Institute Center for Community and Environmental Development (PCEED) in 2001, over the past ten years, auto-related uses have increased over 33% in New York City, especially in Queens and Brooklyn. Furthermore, a significant amount of auto-related uses, approximately 20%, was converted from manufacturing land. Because these uses essentially require only ground floor use, they are able to take advantage of one-story buildings and partially vacant lots, which are often readily available in the City's industrial areas.[28]

[28] The Pratt Institute Center for Community and Environmental Development, *Making it in New York: The Manufacturing Land Use and Zoning Initiative*, June 2001, Pages 58-59.

### ii. Theme #2: Regulatory Changes

Under the 1961 New York City Zoning Ordinance, three types of industrial districts were adopted. These districts, M1 (Light Manufacturing), M2 (Medium Manufacturing), and M3 (Heavy Manufacturing), permitted a broad mix of manufacturing, industrial, commercial, retail, community facility and recreational uses, but prohibited any residential uses.[29] These regulations were designed to meet the needs of the expected future economy by reserving an appropriate amount of land for industrial use, protecting residential areas by separating them from industrial uses, and reducing conflicts among different uses by providing for a grouping for compatible uses.
In the last thirty years a new premise was accepted due to the changing nature of industrial uses, residential and industrial uses could co-exist and in most cases were quite compatible. However, the impact of truck activity within the industrialized zones was never established.

Beginning in the 1970s, the City adopted regulations, which promoted a mix of residential, commercial and light industrial uses in industrial districts. Not only did residential and commercial development increase the property values in industrial districts, it also provided much need housing and services for the City's expanding population.

The following are examples of special purpose districts and other designations that have been adopted by the City to support mixed-use development:

- Loft Zoning:

  In 1971, to address widespread industrial vacancies and a growing pattern of illegal residential conversions in Manhattan manufacturing districts, the New York City Department of City Planning (NYCDCP) introduced an amendment regulating conversions in the SoHo and NoHo neighborhoods. Commonly known as "Loft Zoning", these modifications removed impediments to residential conversions in designated loft areas while balancing the need of industrial establishments.[30]

  Following the transformation of SoHo and NoHo into an upscale residential and commercial area, converting loft buildings, legally or illegally, into residential, retail and office uses, has become even more popular throughout the City. In places where industrial uses are declining, such as Greenpoint-Williamsburg, the DUMBO section of Brooklyn, Tribeca in Manhattan, and Hunters Point in Queens artists and artisans seeking live-work spaces have in part sparked conversion trends, which has contributed to the gradual gentrification of these areas.

  Additionally, the high price of commercial space in prime areas of Manhattan has encouraged companies seeking traditional office uses to move into these industrial areas of Manhattan, Queens, and Brooklyn. High-technology companies, like telecommunications and new media, have grown at a tremendous rate in New York City and many have found older industrial buildings appealing and as a result have taken over numerous loft buildings.

[29] New York City Department of City Planning website, http://www.nyc.gov/html/dcp/html.
[30] New York City Department of City Planning, *Citywide Industry Study: Zoning Technical Report*, January 1993, Page 12.

- Special Purpose Districts:

  Industrial-residential mixed-use areas in New York City were approved in 1973 when the first Special Mixed Use District was created in the Northside of Williamsburg. A special purpose district is used to either protect a particular area from development pressure or to preserve its appearance. In addition to Northside, there are four other Special Purpose Districts which apply specifically to industrial-residential mixed use: Coney Island, Franklin Street in Brooklyn, Hunters Point in Queens, and Lower Manhattan.[31]
- M1-D District:

  In 1989, New York City adopted a generic manufacturing district generally known as M1-D districts. The M1-D zoning designation is very restrictive, and is directed towards industrial preservation with some infill residential development. While the M1-D legitimizes residential uses in manufacturing districts by permitting rehabilitation and enlargements, new residential development requires authorization from the New York City Planning Commission. To date, this district has been mapped in Dutch Kills, Queens, Sunset Park West, and 4th Avenue in Brooklyn.[32] Truck routes in all of these areas are limited.

- Special Mixed Use District MX:

  In 1997, the NYCDCP introduced the generic Special Mixed Use District to allow for more flexible development of manufacturing land including waterfront areas. MX is aimed at revitalizing existing mixed-use communities by lifting restrictions on the development of manufacturing zoned land. It allows as-of-right development of a wide range of residential, commercial, community facility and industrial uses, with some restrictions based on noxious/hazardous materials consideration. Since the MX district is the least restrictive of the manufacturing districts and it does not address manufacturing preservation, this type of district is likely to transform neighborhoods from mixed residential-commercial-industrial to mixed residential-commercial areas. Currently, there are two MX districts in New York City.[33]

Often the designation of mixed use has produced a blanket transformation of the area from industrial to residential and commercial uses. Furthermore, property owners have begun to anticipate the rezoning of industrial areas and opt to either keep their property vacant or to use the property for parking rather than acquire new industrial tenants because they expect to receive a higher price for their land once it is rezoned for residential or commercial uses.

Even without the sanction of formal rezoning actions, land use changes in industrial and mixed-use zones have been accomplished on a property-by-property basis through variances granted by the New York City Board of Standards and Appeals (BSA). For example, according to the MAS and PCEED, between January 1997 and June 1998, the BSA approved thirty-nine variances in the South Williamsburg section of Brooklyn alone.[34]

[31] The Pratt Institute Center for Community and Environmental Development, *Making it in New York: The Manufacturing Land Use and Zoning Initiative*, June 2001, Page 40.
[32] Ibid, Page 41.
[33] Ibid, Page 42.
[34] Ibid, Page 28.

### iii. Theme #3: Development of Medium and Big Box Retail

Following the recommendations of the 1993 NYCDCP publication, "The Citywide Industry Study", the City began to encourage light and medium manufacturing zones to be used as sites for suburban-style retail developments, such as Home Depot and Staples.[35] Due to the dense development and lack of available space in New York City, some of the chains have squeezed into much smaller spaces then they are accustomed to occupying. Since 1996, about 40 large retail stores have opened throughout the City. Examples include a Home Depot in Brooklyn's Sunset Park neighborhood, Metropolitan Avenue in Queens, and an ABC Carpet and Home in Brooklyn's DUMBO neighborhood. However, these types of stores are not being welcomed by all residents and local merchants, as some formerly industrial neighborhoods, which are in shifting to a more residential character, like West Chelsea, have taken legal actions to prohibit large-scale commercial development.

In addition, many of these companies typically generate truck traffic, both in terms of retail users and deliveries. The big-box retailers typically have their own fleets or suppliers that are dedicated to these companies and deliveries. These trucks are typically long-haul trailers that are used throughout the country, and in many cases, may exceed the legal length restrictions in New York City

### iv. Examples of Rezoned Mixed-Use Neighborhoods

Example #1: Bronx: Hunts Point

The Hunts Point area lies on the Hunts Point peninsula and is bound roughly by the East River, the Bronx River, and the Bruckner Expressway. Historical land use development in the area has followed two paths, one residential and one industrial. Medium density residential development occurred in the northwest quarter of the peninsula and industrial development occurred adjacent to the residential development and along the coastline. The construction of the Bruckner Expressway in the late 1950's, separated the area from the rest of the Borough, and as a result linked the residential uses in the area with the industrial uses.

Throughout the 1960s and 1970s, while the residential uses in the area were rapidly deteriorating, the industrial businesses in the area were growing and prospering. In the 1960s, as a result of a joint New York City-New York State effort to consolidate the City's food related businesses in a single location, part of the area became the site of the Hunts Point Food Distribution Center (HPFDC). By the late 1970s, the HPFDC became the site of 40 percent of the meat and 80 percent of the produce distribution in the New York metropolitan area.[36] There have been no major zoning changes in the area over the past thirty years. The majority of the area is zoned M1, M2, or M3 with the exception of the northwest quarter, which is zoned for medium-density residential uses.

In 1980, the New York City Economic Development Corporation designated parts of the area as an In-Place Industrial Park. Fourteen years later, the area was designated as a New York State Economic Development Zone and a Federal Empowerment Zone. The local, state, and national

[35] New York City Department of City Planning, *Citywide Industry Study: Zoning Technical Report*, January 1993, Pages 52-55.
[36] The Pratt Institute Center for Community and Environmental Development, *Making it in New York: The Manufacturing Land Use and Zoning Initiative*, June 2001, Appendix E, Page 42.

designations have helped lure more industrial uses to the area. Today, the HPFDC is home to seven food-related distribution uses, including the largest produce market in the United States.[37]

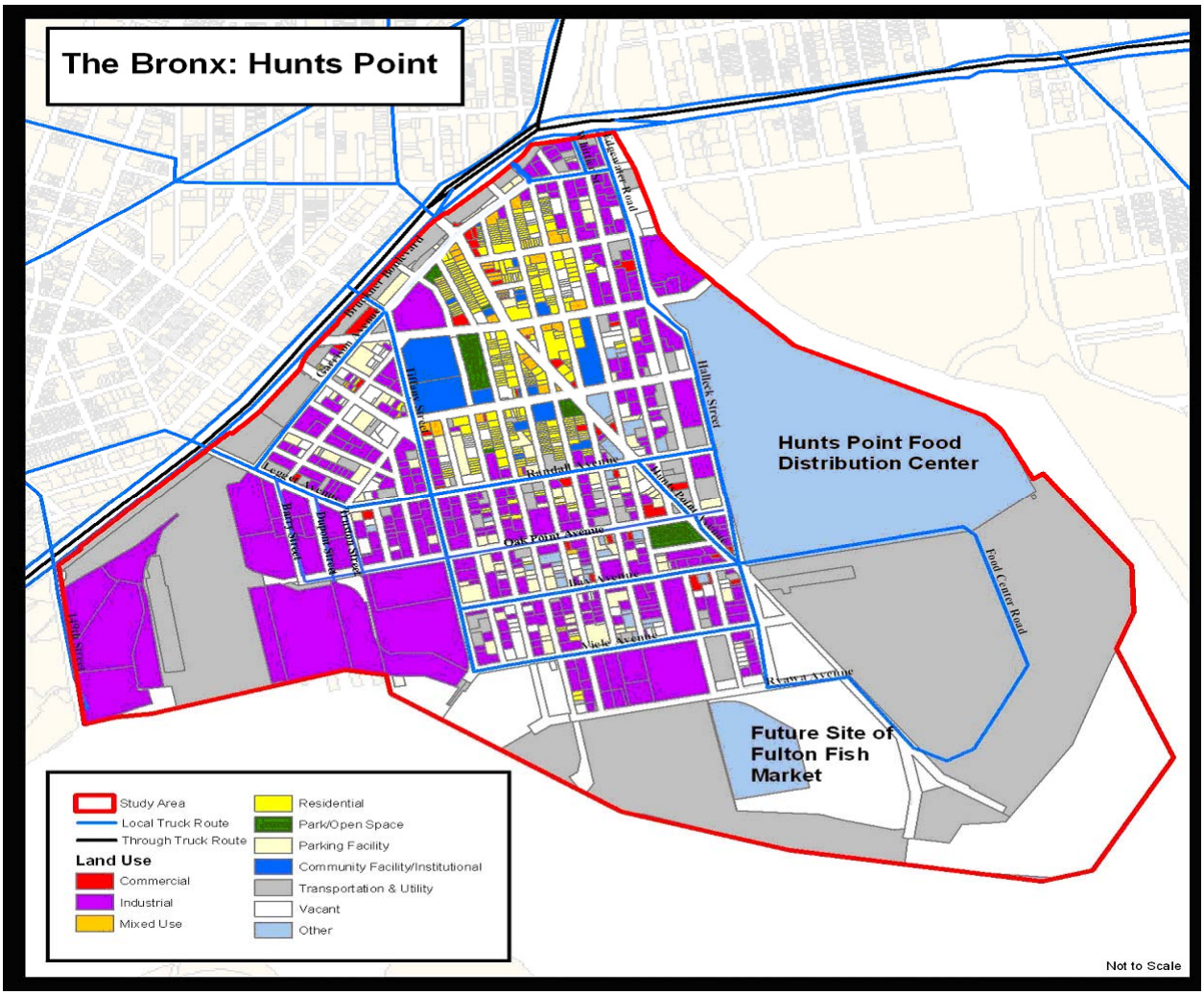
Furthermore, the Fulton Fish Market relocated from lower Manhattan to a vacant parcel within the HPFDC. According to Bronx Community District 2, the construction of the Fulton Fish Market will bring over 700 new trucks a night, hundreds of additional smaller vehicles, and over 1,000 new employees to the area.[38] In addition to the HPFDC, there are numerous light industrial uses, which include garages, auto salvage yards, private waste transfer stations, and various warehouses and distribution facilities.[39]

As a result of the many jobs created by the HPFDC and other new business in the area, the once abandoned residential uses are now occupied and there is a growing demand for more housing. The population in the area has been increasing for the past twenty years.[40] Figure 3-1 shows the land use of the Hunts Point neighborhood (note: the truck routes on this map need to be updated to reflect recent changes). These development changes have also prompted a NYCDOT community initiative to modify the truck routes serving this area.

To address the safety, noise and air pollution issues that were caused by trucks traveling through residential areas which often contained community facilities requiring special protection, in 1998 the NYCDOT implemented a series of improvements, including speed reducers, all way stops and raised medians to calm traffic throughout the residential Hunts Point area. A joint effort involving area residents, local community groups, the Community Board, local elected officials, the trucking companies, Hunts Point Market, NYCEDC, NYPD, NYSDOT, and NYCDOT developed the truck route modifications which were implemented on July 21, 2004 by the NYCDOT to further separate trucks from entering the residential section of the peninsula, where schools and playgrounds are also located. Additional safety improvements have been implemented since then to improve safety for all users, as well as improve the quality of life of the residential neighborhoods bordering the Market.

[37] Ibid, Appendix E, Page 42.
[38] Bronx Community District #2, *Statement of District Needs,* 2004, Page 10.
[39] New York City Economic Development Corporation, *Draft Environmental Impact Statement Fulton Fish Market at Hunts Point*. Urbitran Associates. May 2001, Pages 26-40.
[40] Bronx Community District #2, *Statement of District Needs,* 2004, Page 3.

**Figure 3-1: Hunts Point Land Use**




Similar to the methodology proposed as part of this study to modify truck routes - the existing land use, accident location and location of community facilities, as well as the physical geometric considerations were taken into consideration to develop these new truck routes and eliminate ones that no longer served the local community's interest. The new NYCDOT truck routes in this area made use of wider, less residential streets as truck routes while preserving smaller, residential streets. In addition, new signage has been installed to better delineate the route into and out of the peninsula. The NYPD Truck Enforcement Unit will continue to ensure that truckers follow the newly designated truck routes through this area of the Bronx. More traffic details about this initiative is available in Section 3 of *Technical Memorandum 2, Truck Routing Analysis*.

In addition, in March 2005, Mayor Michael R. Bloomberg unveiled the Hunts Point Vision Plan, a comprehensive planning and development framework that will promote a competitive business environment and a sustainable community on the Hunts Point peninsula in the South Bronx. The plan is the result of the work of the Hunts Point Task Force, which was formed in spring 2003 to provide a forum for addressing critical concerns about Hunts Point. Through the Office of the Deputy Mayor for Economic Development and Rebuilding, the Bloomberg administration

worked closely with community leaders and elected officials—whose vision and commitment were key to realizing this effort—to identify a diverse group of business owners, local constituents, elected officials and government agencies who would bring energy and experience to the charge.

The Task Force created the Hunts Point Vision Plan to set an agenda for development policy in Hunts Point for the next twenty years, with an emphasis on recommendations that can be implemented in the near term. The Vision Plan covers a comprehensive set of issues and will promote a vibrant cultural life, an accessible and attractive waterfront, a healthy residential community and a solid industrial base that provides good employment opportunities for local residents. A synopsis of the Hunts Point Vision Plan can be found in Figure 3-2.

**Figure 3-2: Hunts Point Vision Plan**

Example #2: Brooklyn: Greenpoint–Williamsburg

The Greenpoint-Williamsburg area is bound roughly by the East River, the Williamsburg Bridge, the Brooklyn Queens Expressway, and McGuinness Boulevard. More than ten designated truck routes, including one through truck route, traverse the area.

The area was developed more than 100 years ago during Brooklyn's industrial age when large factories, refineries, and shipyards dominated the waterfront. The upland areas of Greenpoint-Williamsburg housed the workers and within these areas, homes and factories intermingled creating a pattern of mixed use that still characterizes the area today.

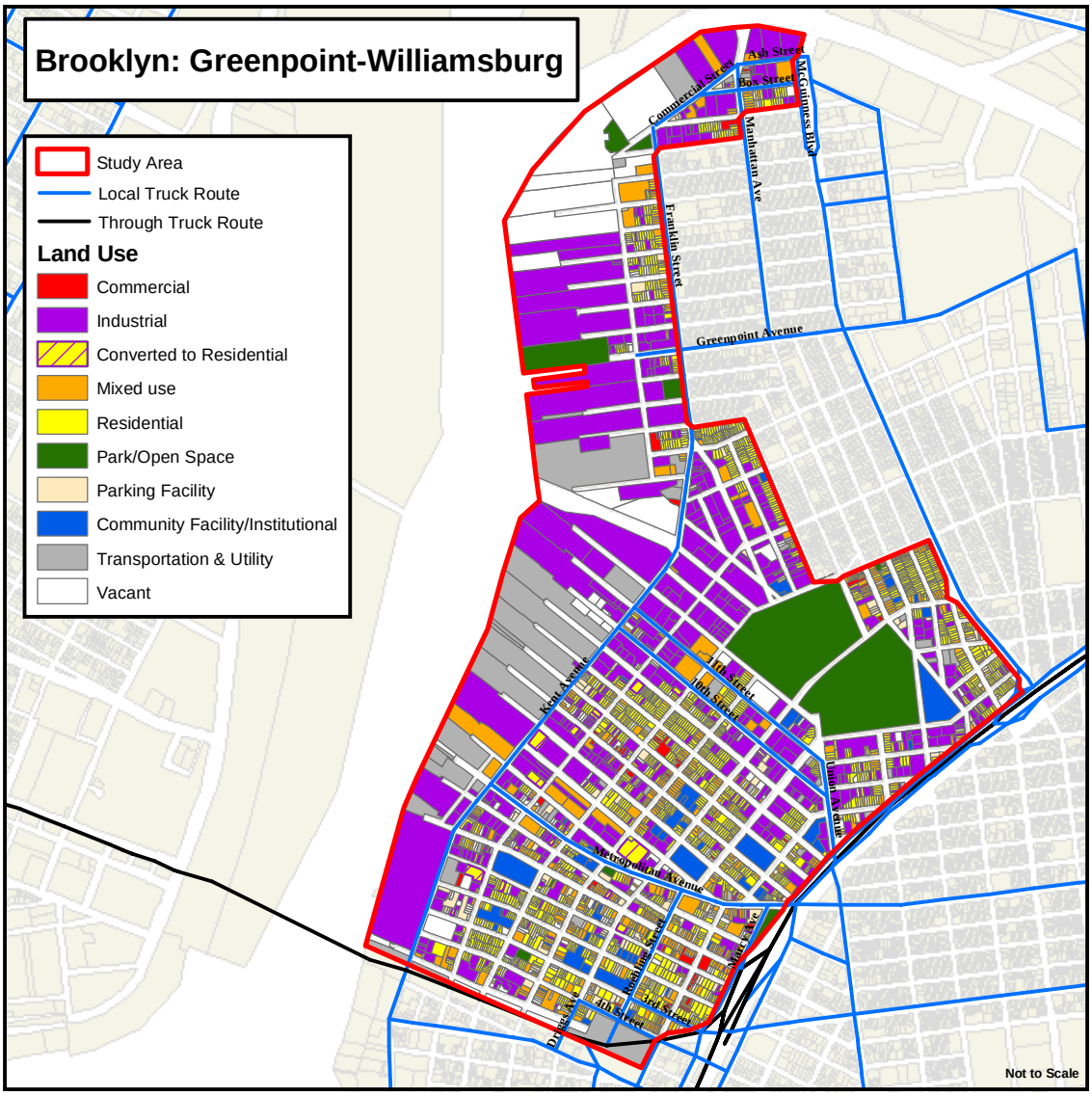
Over the years, the area has grown and adapted to changing economic conditions. The refineries and shipbuilders have departed, and new generations of businesses, entrepreneurs, artists and residents have emerged. In the upland portion of the area, two commercial spines, lined with retail stores, restaurants and bars have developed along Bedford Avenue and Havemeyer Street.

On the waterfront, many of the major industries are gone or vastly diminished. The last major industrial use, the Domino Sugar Plant, closed its refinery in January 2004 after 148 years of operation. Currently, the waterfront is mostly comprised of abandoned warehouses and empty lots. NYCDCP documented that any remaining industrial activity in the area has shifted toward non-manufacturing uses such as wholesale, distribution of food and beverages, furniture, and apparel, as well as construction-related uses.[41]

Additionally, according to a report prepared by the NYCDCP, the Greenpoint-Williamsburg area lost approximately 40 percent of its industrial jobs between 1991 and 2002. The NYCDCP confirmed this data by conducting land use surveys, which revealed that large manufacturing employers are no longer present in the area and that there has been a significant increase in legal and illegal residential conversions[42]. Furthermore, the MAS and Pratt Institute Center for Community and Economic Development documented that according to the Brooklyn Borough President's Office, there are three times as many requests for variances for conversions of industrial properties to residential uses from the BSA in the area's community district than in any other Brooklyn community district.[43] Figure 3-3 shows the land use of the Greenpoint-Williamsburg neighborhoods.

[41] New York City Department of City Planning website, *Greenpoint-Williamsburg Land Use and Waterfront Plan: Decline in Industrial Activity*, http://www.nyc.gov/html/dcp/html/greenpointwill/html.
[42] Ibid.
[43] The Pratt Institute Center for Community and Environmental Development, *Making it in New York: The Manufacturing Land Use and Zoning Initiative*, June 2001, Page 3.

**Figure 3-3: Greenpoint-Williamsburg Land Use**

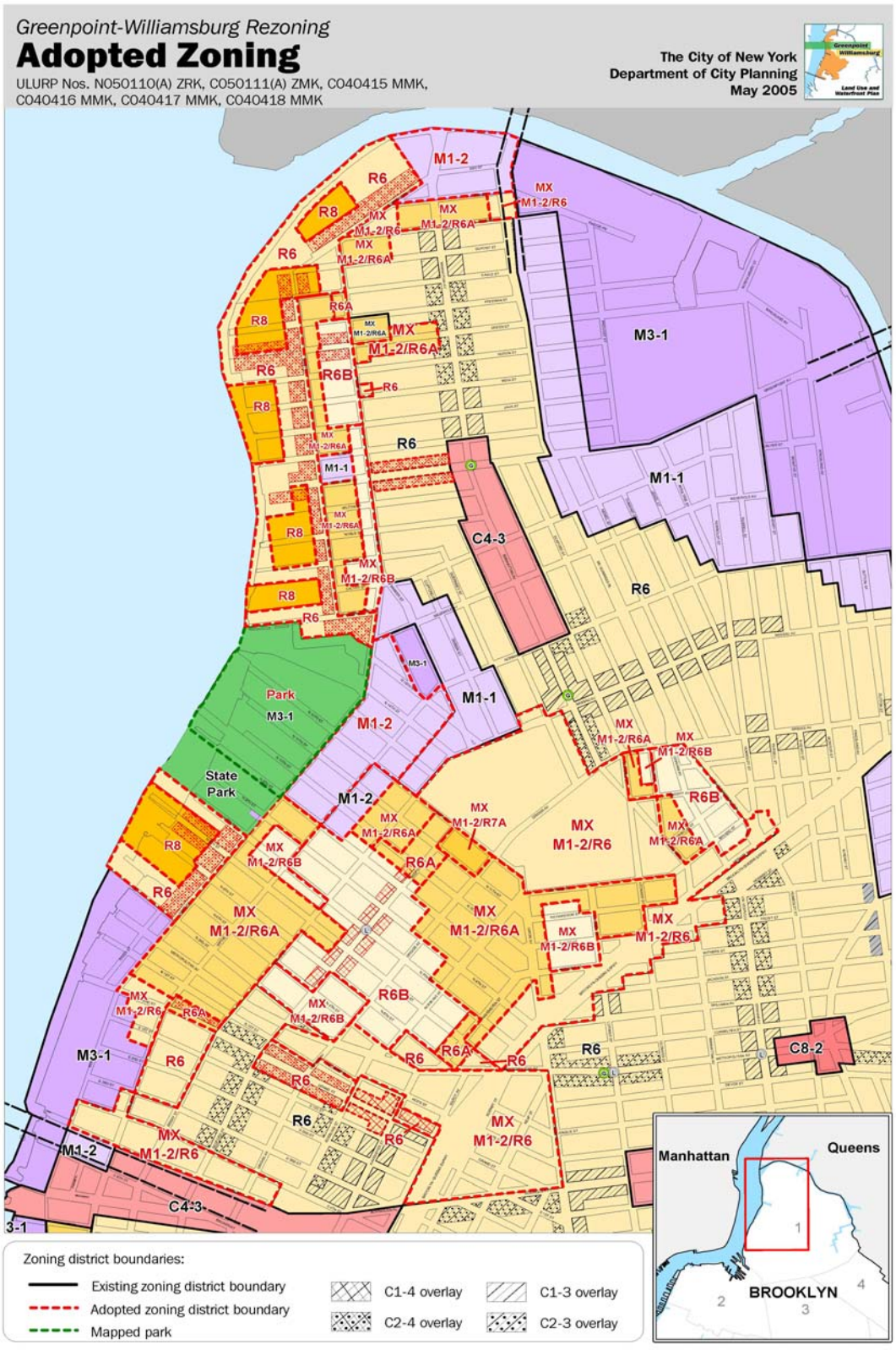



In recognition of the increased pressure for residential development, NYCDCP adopted new zoning regulations in May 2004 to permit light industrial and residential uses to coexist, as well as a blueprint for new public open spaces along the waterfront. These zoning changes did not include any changes to truck route streets in the area. The existing zoning in the area reflects the historical background of the area rather than the exiting land uses. Blocks nearest the waterfront are zoned M3, a district that still accommodates heavy industrial uses. The upland sections of the area are zoned M1, a district that permits light industrial and some commercial uses. Any existing residential land uses do not conform to the current zoning.[44]

The adopted zoning regulations are depicted on the following map (Figure 3-4)

[44] New York City Department of City Planning website, *Greenpoint-Williamsburg Land Use and Waterfront Plan: Existing Zoning*, http://www.nyc.gov/html/dcp/html/greenpointwill/html.

**Figure 3-4: Greenpoint-Williamsburg Adopted Zoning**



Currently, new residential uses are either not permitted at all or in a limited way in two Special Purpose Districts that were established in the 1970s in recognition of their mixed use character.

- The Special Northside Mixed Use District, created in 1976, has two mixed use components: primarily residential R(M) areas, and primarily industrial M(R) areas. Specified industrial uses are allowed by special permit in R(M) areas. Most residential development is allowed only by special permit in M(R) areas. According to the NYCDCP, only a handful of special permit applications have been filed since the district was created. Nevertheless, residential use has spread and, in areas designated for primarily industrial use, manufacturing activity has declined sharply.[45]

- The Special Franklin Street Mixed Use District is essentially a residential district that permits a limited number of industrial uses by special permit. According to the NYCDCP, since 1975, nearly all of the industrial uses have left and, in the past two years, three new residential buildings have been constructed in the district.[46]

The NYCDCP proposal builds on the Greenpoint and Williamsburg 197-A Plans, which were officially adopted in January 2002, as well as the NYCDCP "Plan for the Brooklyn Waterfront" that was released in 1994. All three initiatives stress the need to enact comprehensive zoning changes that reflect that land use changes that have taken place in recent decades. Also, recommended is the promotion of new non-industrial uses on the waterfront, especially where land uses have recently changed or where vacant and underutilized properties suggest potential for beneficial change.[47]

Example #3: Brooklyn: Down Under the Manhattan Bridge Overpass (DUMBO)

The DUMBO area is bound roughly by the East River, the Brooklyn Bridge, the Manhattan Bridge, and Prospect Street. Seven designated truck routes, including one through truck route, traverse the area.

Throughout the 19th century, the area was a bustling commercial and manufacturing center. Tubal Cain Iron Works, Sweeney Metal Works, Yuban Coffee and Spices, and the Robert Gair Bottle Cap and Cardboard Box Manufacturing, were only a few of the manufacturers located in the area. However, the combination of the opening of the Manhattan Bridge in 1909, the decline of maritime freight movements, and the construction of the Brooklyn-Queens Expressway in the 1950's, caused the area to be completely isolated from the rest of New York City. As a result in the late 1950's and early 1960s, the major manufacturers began to leave the area leaving many of the warehouses vacant. Substandard manufacturing and sweatshops were the primary uses throughout the 1970s and early 1980s, when artists began to illegally use the vacant warehouses as live-work spaces.[48]

The development of illegal residential conversions continued in the area throughout the 1990s. In 1998, as a response to this growing trend of mixed-use development in the area, the

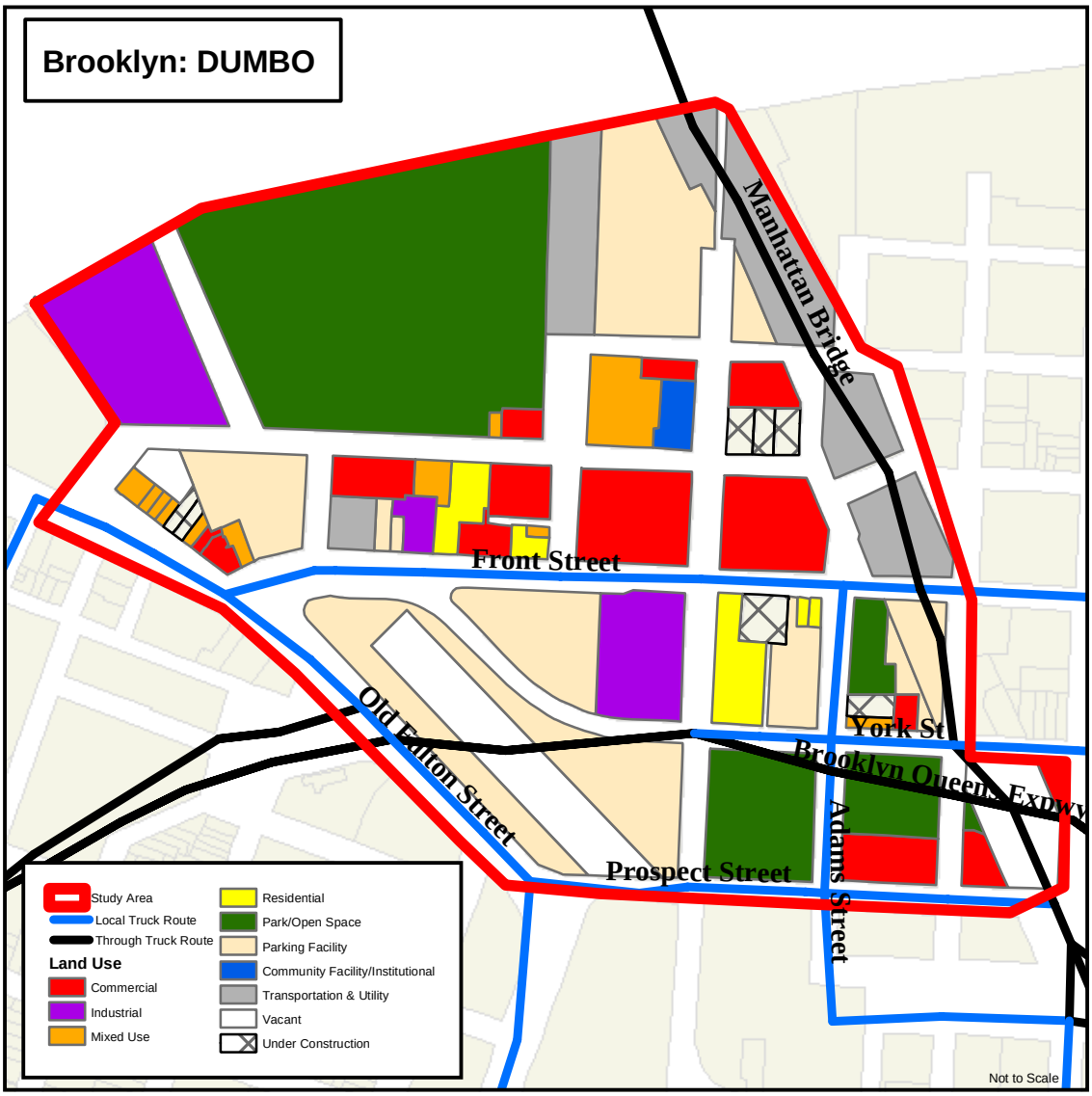
[45] Ibid.
[46] Ibid.
[47] New York City Department of City Planning website, *Greenpoint-Williamsburg Land Use and Waterfront Plan: Land: Land Use Framework*, http://www.nyc.gov/html/dcp/html/greenpointwill/html.

[48] DUMBO Business Improvement District, *District Plan*, Pages 2-4.

NYCDCP formally rezoned the area to permit legal residential development.[49] Prior to the rezoning, the area was zoned M1 and M3; both designations do not permit any residential uses.

Since the rezoning in 1998, new residents, office tenants, and retailers have located within the area and have helped it emerge as a vibrant mixed use community. The legal housing stock includes hundreds of condominium units and rental apartments, the majority of which are located in converted warehouses. Figure 3-5 shows the DUMBO land use.

**Figure 3-5: DUMBO Land Use**




In addition to residential conversions, many commercial conversions have taken place. The area has over 2,000,000 square feet of commercial office space and as a result the area has become home to new media, design, architecture, internet-related and finance companies. Numerous restaurants, bars, and small neighborhood retail uses, which cater to both the

[49] New York City Department of City Planning website, http://www.nyc.gov/html/dcp/html.

residential and commercial communities, are located throughout the area.[50] Recently, medium and big box retail stores have located in the area. Two large furniture companies, ABC Carpet and Home and West Elm have opened stores sized at least 20,000 square feet within the area.

Although the area is no longer a manufacturing center, a few light industrial uses still continue to operate. Some of the spaces that were used for manufacturing are now used for less intensive industrial uses, including warehousing goods ranging from novelty items to legal storage. Also, the area has increasingly become a center for craft shops and artisans. Over 500 artist's studios, numerous art galleries, theater companies, and other arts organizations have located in former warehouses.[51]

Example #4: Queens: Hunters Point

The Hunters Point area is located in Long Island City between Court Square and the Queens West development on the East River waterfront. Six designated truck routes, including four through truck routes, traverse the area.

A mix of residential, industrial, and commercial land uses has long-defined the area. In the 1860's the area surfaced as a transportation hub, a position hastened by the construction of the Long Island Rail Road terminal and reinforced in later decades with the development of Sunnyside Yard and the IRT Flushing subway line. Over time, residential, industrial, and commercial uses were constructed around these infrastructure projects.

In 1961, despite prevalent concentrations of residences in the neighborhood, manufacturing zoning districts were established throughout the area to foster the expansion of industrial uses. However, as industry began to shift towards more distribution and trucks began to dominate freight movement, the 100-year-old warehouses could not adequately support the needs of manufacturers. According to NYCDCP, due to the age of the industrial building stock in the area, many of the buildings have small floor plates, occupy lots measuring less than 5,000 square feet, and have poor loading facilities. In addition, the area's narrow streets are unable to adequately accommodate truck traffic and routine loading activities related to modern manufacturing operations. As a result, manufacturing companies left the area for more efficient facilities to accommodate their needs.[52]

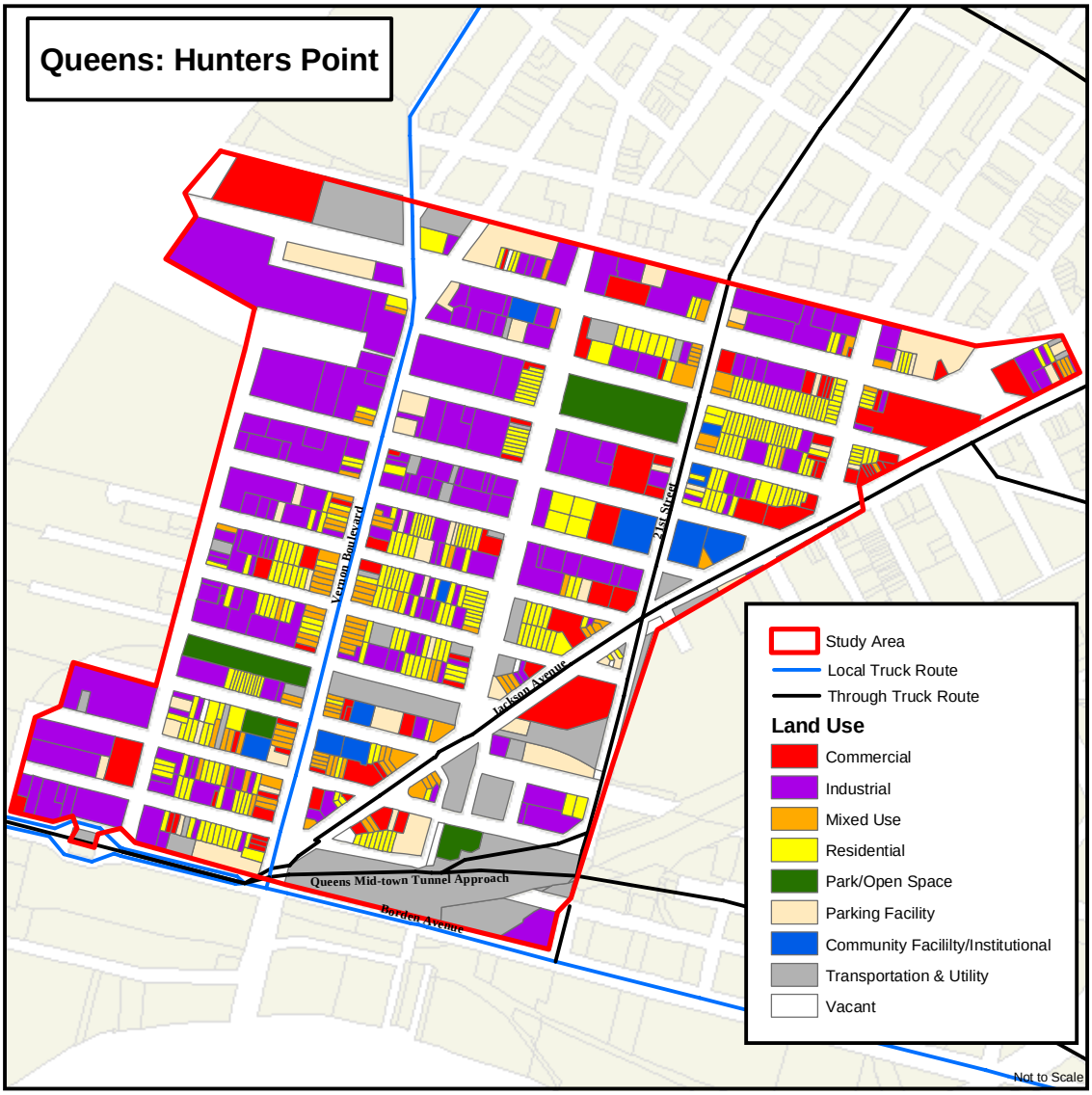
The NYCDCP first tried to address the area's changing character when it established the Special Hunters Point Mixed Use District in 1981. The special district regulation allowed new manufacturing and commercial uses as-of-right. The provisions also permitted very limited as-of-right enlargements and alterations of existing residential buildings and new infill residential construction.[53]

Today, the area is a mix of light industry, housing, commercial enterprise, and cultural activities. The area's industrial uses have shifted from manufacturing to an assortment of semi-industrial and entrepreneurial activities such as warehousing, jewelry production firms, wholesale baking businesses, construction companies, and visual art enterprises.[54] In recognition of the changing

[50] Two Trees Management website, http://www.dumbo-newyork.com/.
[51] Ibid.
[52] New York City Department of City Planning website, *Hunters Point Subdistrict Rezoning, Planning Framework*, http://www.nyc.gov/html/dcp/html/hunterspoint/hp1.html.
[53] New York City Department of City Planning, *Citywide Industry Study: Geographic Atlas of Industrial Areas*, January 1993, Page 257
[54] New York City Department of City Planning website, *Hunters Point Subdistrict Rezoning, Existing Zoning,* http://www.nyc.gov/html/dcp/html/hunterspoint/hp1.html.

character of the area, the NYCDCP has recently proposed zoning changes that reflect the land use changes that have taken place in recent years. The rezoning proposal would pair a light industrial district and a residential district creating mixed-use contextual zones.[55] Figure 3-6 shows the land use in the Hunters Point neighborhood.

**Figure 3-6: Hunters Point Land Use**




The proposed mixed-use regulations would create opportunities for about 300 housing units in new buildings that will blend into the established neighborhood scale as well as promote the conversion of former industrial spaces to residential units. While continuing to sustain the existing semi-industrial development in the area, the proposal would also allow a broad range of commercial uses, including stores, restaurants, artist studios, small theaters, and custom

[55] New York City Department of City Planning website, *Hunters Point Subdistrict Rezoning, Proposed Zoning,* http://www.nyc.gov/html/dcp/html/hunterspoint/hp1.html.

printers. Additionally, in almost all circumstances residential, community facility, commercial, and most light industrial uses will be allowed as-of-right.[56]

Example #5: Manhattan: West Chelsea

The West Chelsea area is bounded generally by Tenth and Eleventh Avenues from West 30th Street south to West 16th Street. Four designated truck routes, including one through truck route, traverse the area.

The area originally developed as a manufacturing area that complemented the other industrial uses along the Hudson River waterfront. From the 1930's through the 1950's, the area was a significant producer of industrial goods and helped contribute to New York City becoming an international center of commerce.[57] Adding to the industrial nature of the area was the development of the High Line, an elevated freight railroad, which stretched from 34th Street south to Gansevoort Street.

The decline of the New York City industrial sector during the past three decades has left many properties in the area, including the High Line, vacant or underutilized. While the industrial sector has diminished, residential populations in adjacent communities have substantially increased, leading to greater housing demand and pressure for residential development in the area. However, most of the area is currently zoned for light industrial and commercial uses, and any existing residential buildings are non-conforming uses, as well as any additional residential development is prohibited.[58]

In the late 1990s, to the disfavor of area residents and the surrounding community, there was pressure to develop big-box retail uses in parts of the area. In a letter addressed to the Chair of the Board of a major big-box company, Manhattan Community Board #4 stated that the community felt that the increased vehicular traffic, more specifically truck traffic, generated by a large commercial use would be detrimental to the arts district that surrounds the area.[59]

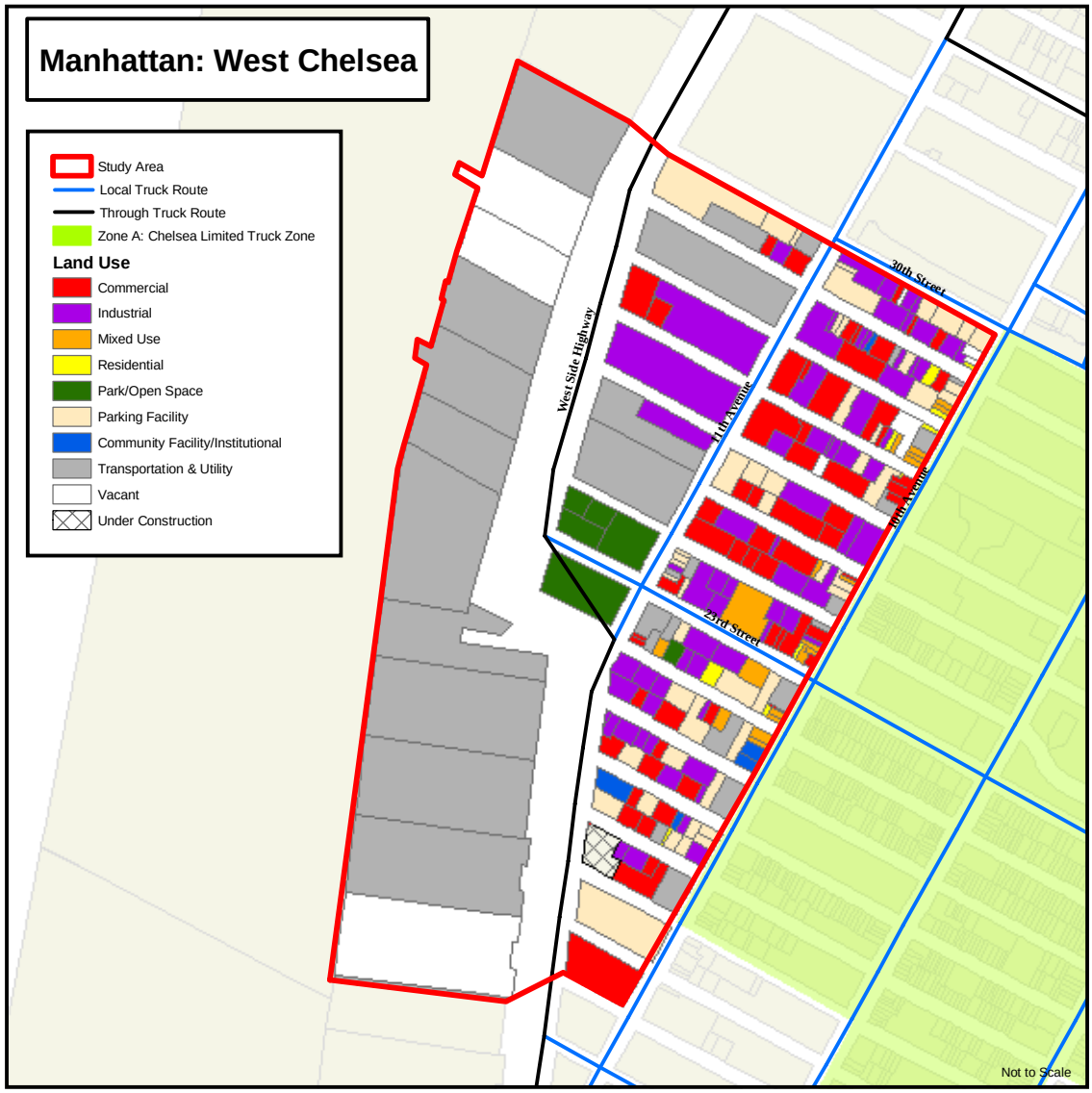
In response to this growing pressure for large scale commercial development, the residents of the area and the surrounding community worked with the NYCDCP to rezone parts of 23rd Street to permit mixed-use development, which included residential, light industrial, and small scale commercial uses. Large-scale retail or big-box development was strictly limited.[60] Since the rezoning, over 300 residential units have been constructed on 23rd Street between 10th and 11th Avenues.[61]

Currently, the area is mixed use in character. There are light-industrial uses mingled among art galleries, restaurants, nightclubs, boutiques, residences, and adult entertainment venues. To help organize the land uses and guide future development in the area, the Department of City Planning amended the zoning text and map in the West Chelsea area in Community District 4. This rezoning and the creation of the Special West Chelsea District should provide opportunities for residential and commercial development, facilitate the reuse of the High Line as a linear

[56] New York City Department of City Planning website, *Hunters Point Subdistrict Rezoning, Proposed Zoning,* http://www.nyc.gov/html/dcp/html/hunterspoint/hp1.html.
[57] New York City Department of City Planning website, *Special West Chelsea District Rezoning Proposal,* http://www.nyc.gov/html/dcp/html/westchelsea/westchelsea1.html.
[58] Ibid.
[59] Letter from Manhattan Community Board #4 to Mr. Jeffrey Brotman, Chair of the Board of Costco, January 6, 2000.
[60] New York City Department of City Planning, *New York City Zoning Ordinance*, 2002.
[61] Garbarine, Rachelle. "Rental Units Set at Ex-Costco Sites in Manhattan." The New York Times, 12 July 2002.

open space, and enhance the surrounding neighborhood's thriving art district.[62] Figure 3-7 shows the land use in the West Chelsea neighborhood.

**Figure 3-7: West Chelsea Land Use**




[62] Department of City Planning website, *Special West Chelsea District Rezoning Proposal*, http://www.nyc.gov/html/dcp/html/westchelsea/westchelsea1.html.

Example #6: Manhattan: Tribeca

The Tribeca area is bound by Canal Street to the north, Murray Street to the south, Broadway to the east, and the Hudson River to the west. Eleven designated truck routes, including three through truck routes, traverse the area.

During the latter part of the 19th century and the first half of the 20th Century, the area was New York City's main food distribution center. Most of the land uses in the area were warehouses and distribution facilities for meat, poultry, vegetables, and dairy products that were imported from elsewhere in the Untied States and in turn sold to stores and restaurants throughout the City. In addition to food distribution, the area included other industrial uses such as textile manufacturing firms and wholesaling companies.[63]

Starting in the 1950's, with the increase in trucking and the size of the vehicles used for freight movement, many trucks found that they could not maneuver easily on the area's narrow, cobblestone streets. Parallel with the shift in freight movement was the shift of industrial operations out of New York City and one by one the wholesaling and manufacturing businesses moved elsewhere, and all of the food concerns relocated to Hunts Point in the Bronx.[64]

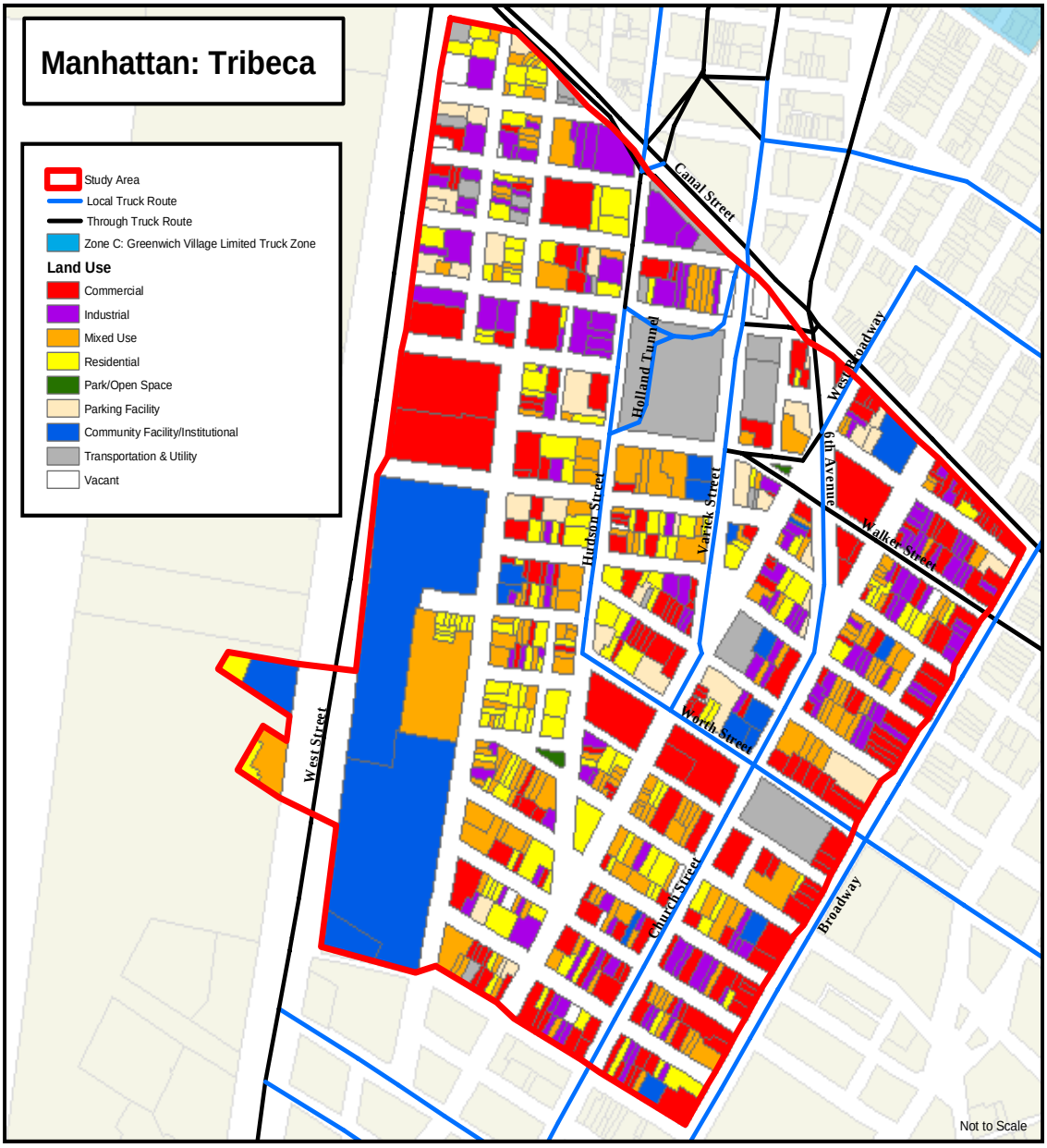
In 1961, despite the rising number of abandoned or vacant warehouses, manufacturing zoning districts were established throughout the area. However, by the early 1970s artists began to move into the abandoned warehouses. In 1976, the Lower Manhattan Mixed-Use District was created. This district, which includes part of the area, is an effort to preserve industry in Lower Manhattan while permitting a limited number of conversions of small loft buildings.[65]

By the middle of the 1980s, the area's built form had been altered little, yet the area has experienced significant land uses changes. Residential uses, scattered and isolated two decades ago, now dominate many blocks that had traditionally housed light manufacturing and wholesale trade activities. According to the United States Census, the residential population of the area grew from 243 in 1970 to over 5,000 by the beginning of the 1980s and over 20,000 by 2000. Furthermore, the public schools serving the area have experienced such significant overcrowding that a new kindergarten through eighth grade school is planned for Lower Manhattan.[66]

In 1998, the area became part of the Special Tribeca Mixed-Use District. This district was established to protect light industrial uses and to encourage stability and growth in the Tribeca neighborhood. This designation permits light industrial and controlled residential uses to coexist where such uses are deemed compatible, and to provide a limited amount of new housing at an appropriate density.[67] While there are no longer heavy industrial uses in the area, light industrial uses, specifically printing, publishing, and graphic arts firms, are intermingled with the residential and commercial uses that dominate the area. Figure 3-8 shows the Tribeca land use.

[63] Tribeca Organization website, www.tribeca.org/history.aspx.
[64] Ibid.
[65] New York City Department of City Planning website, Lower Broadway/Lower Manhattan Mixed-Use District, http://www.nyc.gov/html/dcp/html/pub/lmmstudy.html.
[66] New York City Department of Education website, www.nycenet.edu.
[67] New York City Department of City Planning, *New York City Zoning Ordinance*, 2002.

## Figure 3-8: Tribeca Land Use



### c. Delivery Strategies of Businesses

Reliability and predictability are the most important characteristics of freight transportation. These factors have become increasingly critical to shippers and receivers of freight because of revolutionary changes in business practices such as lean manufacturing methods, small factory and retail inventories, and just-in-time delivery of goods. Trucks increasingly play a pivotal role in the supply chain. Just-in-time delivery requirements underlie much of the growing concern and frustration of motor carriers with chronic urban congestion and its effects on travel time and reliability.

Businesses also have been outsourcing the manufacture and assembly of goods, reaching lower cost labor but necessitating long-distance shipments, which also may figure in just-in-time manufacturing and retailing systems. Because of the increasing integration of points in the supply chain, just-in-time requirements affect all facets of this chain – shipper, distribution, warehousing, and delivery to retailers. According to some estimates, as many as 50 percent of all firms will be operating under just in time manufacturing or retailing systems within the next few years.

The New York City region's truck freight network is severely congested. Automobiles account for most of the congestion, yet the congestion is a major problem for freight movement because of the travel delays it causes. It also erodes the ability of the truck freight network to provide reliable and predictable freight service. When roads and highways are saturated, traffic flows are unstable; the frequency of incidents both minor and major increases; the time required for traffic flow to recover increases exponentially; and reliability disappears. A one- or two-hour delay can mean a shutdown of manufacturing operations for a day, the loss of considerable retail sales, or a missed train or air flight with a delay of a day in a domestic shipment or a missed boat or plane with a week's delay in an international shipment. This translates to a loss of revenue for the shipper/manufacturer/merchant, affecting their competitiveness and profitability, but just as directly it impacts the motor carrier's operating costs.

Motor carriers are in business to deliver goods to customers. Meeting schedules are paramount, and strongly impacts a carrier's costs and its profitability. Carriers incur substantial costs as a result of delays due to congestion, incidents, and other traffic conditions, including:

- Increased fuel consumption;
- Increased driver duty hours;
- Duplicate shipments sent to avoid just-in-time penalties;
- Penalties for non-on-time performance; and
- Loss of revenue that results from idle time.

The impact of congestion on a carrier's ability to meet customer commitments is considerable when just-in-time deliveries are compromised – involving established delivery windows and set delivery times. Peak-hour congestion can be especially deleterious when deliveries are expected during a narrow window in the morning, or when pickups are allowed only from 2:00 PM to 4:00 PM. Planning for delays and lower speeds is a part of a carrier's business practices, but it increases operating costs and lowers profit margins. Moreover, missing a delivery window outright frequently results in fines on the carrier. In some cases, duplicate shipments are sent to avoid these penalties. Additionally, the carrier may "lose" money when congestion results in fewer loads picked up and delivered in a day (when payment is on a per-load basis). Penalties also may be incurred when delays cause driver hours of service violations and the attendant

fines and late deliveries. Overall, congestion increases truck travel time and decreases reliability of delivery. The result is higher trucking costs in the region. The combination of congestion with tolls and labor costs means that it costs about twice as much to move an intermodal container within the region as it does to move a container elsewhere in the U.S.

The storage of goods is also an important part of the distribution process. New technologies and management systems have reduced the need for inventory and storage time, and therefore for traditional warehouses. Just in time delivery involves the transfer of goods from factories to stores or manufacturing facilities with no need for warehousing. Goods arriving at a warehouse are cross-docked with the use of sophisticated warehouse management system (WMS) software. With this software, goods are unloaded from the delivery trailer to another trailer that will take them to their designated facilities. Retail facilities and manufacturer's take advantage of this efficient delivery system by eliminating inventories. Sales are scanned and data is forwarded to the store's replenishment system, which determines when more products need to be ordered. This same replenishment system is also used by manufacturing companies, where supplies are ordered on an as-needed basis.[68]

Although a just-in-time system is favored because it supports the faster and easier movement of cargo, it can be a burden for the trucking industry. Drivers are confronted with both the legal requirement to pull over when tired, and the economic requirement to deliver on time. Just-in-time delivery can also be a burden to the transportation network. The lack of warehousing and inventory associated with just-in-time delivery has increased the demand for more frequent delivery in smaller quantities. However, smaller quantities do not necessarily equate to deliveries by smaller trucks. This results in more truck traffic and the use of larger trucks, which often store cargo during transport for delivery to several sites. The introduction of larger trucks and more frequent deliveries within the City increases congestion and blocks traffic on local roads during delivery.

A business survey conducted as part of study during 2003 reveals that 17% of them maintain just-in-time delivery, which is a number that is projected to increase in the future. The survey also revealed the following:

- Deliveries were balanced throughout the week.
- Seventy-five percent did not have scheduled delivery times.
- 7 AM to 11 AM was the most frequent delivery time.
- Thirty-three percent required less then thirty minutes to load/unload their trucks.
- Sixty-four percent required greater than thirty minutes to load/unload their trucks.
- Seventeen percent maintain just-in-time delivery.
- Half would take deliveries before or after their normal business hours (i.e. before 7:00 AM or after 7:00 PM)
- Less than 10% were familiar with the truck regulations and routes near their businesses.

The last two results are particularly noteworthy. Half of the businesses surveyed would take deliveries before 7:00 AM or after 7:00 PM and less than ten percent of businesses are familiar with the truck regulations and truck routes to their businesses.

New industrial, manufacturing and commercial (i.e. big box retail) businesses should select single unit trucks for pick-ups and deliveries which can more easily maneuver on the local City

[68] Cambridge Systematics Inc., prepared for the New York Metropolitan Transportation Council. *Regional Freight Plan, Task 2 Description of Freight Transportation System in the Region*. July 2001. Pages 2-1 and 2-2.

streets. Businesses should also verify their manifest for their deliveries of pick-up of goods to ensure that the correct address is on the manifest. This is particularly a problem in Queens where there are locations with “Street”, “Avenue”, “Place” and “Road” names that can easily confuse many drivers, if the wrong address is given to the trucker. CD’s and pamphlets can be developed by NYCDOT with the truck regulations and network on them and distributed to businesses so that they assist in informing their drivers. Recommendations in *Technical Memorandum 4, Education Program* will detail some of the methods that NYCDOT can utilize to make more businesses aware of the truck route regulations and network.

# 4. IMPACT OF BRIDGE AND HIGHWAY RECONSTRUCTION

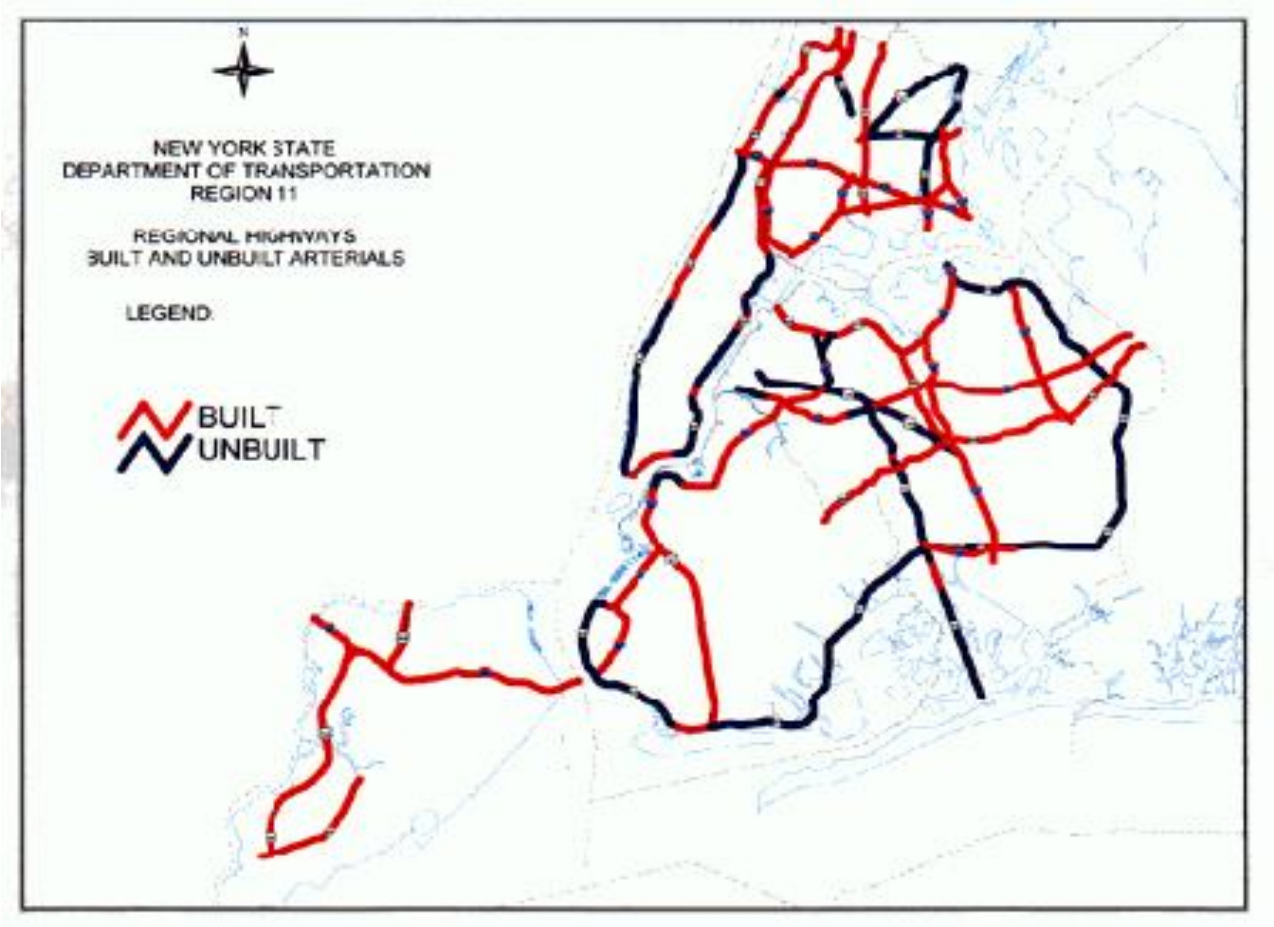
There are nearly 20,000 miles of streets and highways in New York City. This roadway network consists of more than 1,000 miles of limited access roads, more than 7,000 miles of primary and secondary routes, and approximately 11,000 miles of local streets. Over the course of time some of these roadways and bridges have deteriorated to the point where repair, rehabilitation and/or replacement is necessary.

In the years following World War II, legislation was passed defining arterial highway system plans for urban areas across the State. The State arterial system in NYSDOT's Region 11, as described in the New York State Highway Law (Section 349-f) consists of 41 arterial highways or highway segments. A number of the arterials were never constructed such as Shore Front Parkway in Staten Island, or the Bushwick Expressway in Brooklyn and other arterials such as Richmond Parkway in Staten Island were only partially built. The routes actually built total approximately 235 centerline miles (1,400+ lane-miles) of limited access and non-limited access arterials. Beginning with the passage of Federal aid highway legislation in the 1950's, most of the newer arterial mileage has been built by the State and is owned by the State.

Ownership of the system is divided between the City and State with the State acquiring additional segments of City owned arterials as they are reconstructed to current State/Federal standards by the Department. The Highway law committed the NYSDOT to completing the State Arterial System in New York City. In New York City there are currently approximately 155 miles of built (State owned) arterials and 95 miles of unbuilt (City owned) arterials. As per the highway law, the City-owned mileage will be brought into State ownership as it is reconstructed to current standards. Historically, most of the mileage incorporated into State ownership took place several decades ago. More recently, the rate of acquisition has slowed but continues on a fairly regular basis. Figure 4-1 shows the NYSDOT built and unbuilt highway system in New York City.[69]

[69] New York State Department of Transportation, http://www.dot.state.ny.us/reg/r11/r11glance/page2.html, September 22, 2004.

## FIGURE 4-1: NYSDOT REGION 11 BUILT AND UNBUILT HIGHWAYS




These state-owned roadways, as well as the City owned roads, require billions of dollars to keep them in a state of good repair. Bridges are also one of New York City's primary transportation infrastructure concerns, as New York is a bridge-dependent city. Bridge rehabilitation is currently and will continue to be a major focus of the City's capital improvement program.

Much of the deterioration of bridge and highway infrastructure in New York City is due in large part to the heavy loads carried by trucks and the increase in daily traffic volume. In the years to come, many of the reconstruction projects that have been delayed due to financial constraints will need to be carried out. The work required to make these repairs, will in turn lead to construction delays and detours that will have to be mitigated through careful advanced planning by the NYCDOT, NYSDOT and others so as to allow truck drivers to reach their destinations in such a way that minimizes the impacts to local communities.

These reconstruction projects raise two critical freight mobility issues:

1. These projects will, in many cases, require a significant diversion of trucks to detour routes. As these detour routes are formulated, consideration must be give to the input on truck mobility and the impact of trucks on the communities.
2. A number of these projects provide opportunities for geometric improvements to key freight corridors that will better facilitate goods movement.

Overall, the list of ongoing or proposed projects encompass nearly every corridor which is integral for goods movement. This includes a significant portion of the Interstate system such as the I-278 corridor, major bridges such as the Goethals and Kosciusko Bridges and other critical arterials which carry a significant number of truck trips. Maintaining accessibility during these construction projects will be critical to ensure the movement of trucks into and out of the City.

In addition, there are numerous other initiatives which should also be taken into account in terms of reconstruction of infrastructure relating to Goods Movement. This includes significant investments into rail infrastructure, such as the Oak Point Freight and Harlem River Yards, improvements to Staten Island rail access and other proposed projects which could provide for improved flows of goods into and out of the City.

# 5. TRUCK REGULATIONS AND POLICIES IN OTHER UNITED STATES CITIES

## a. Introduction

This section presents information on how other cities in the United States manage goods movement by truck, while also taking into consideration the concerns of the trucking, business and residential communities. This is not a best practices guide, but rather a brief snapshot of what other cities around the United States are doing to address goods movement, via trucking, and any related complaints that are made by the local communities. The contents of Section IV includes the methodology utilized, a summary of the business and trucking industry survey results, and concluding remarks contrasting what the City of New York and twenty-one other cities around the United States do to manage truck traffic and reduce community impacts. The Appendix at the end of *Technical Memorandum 5* contains the actual responses provided by the survey respondents and their contact information.

## b. Methodology

This section explains the methodology that was utilized to gather the necessary information to complete this subtask. Four steps were undertaken to complete this work effort.

First, twenty-one cities were identified as places to contact based on the size and complexity of their goods movement network in comparison to New York City. The cities contacted ranged in size population from 124,000 to 3,695,000 and include the following: Atlanta, Baltimore, Boston, Buffalo, Chicago, Dallas, Denver, Detroit, Houston, Indianapolis, Los Angeles, Miami, New Haven, Philadelphia, Pittsburgh, Portland (Oregon), Sacramento, San Francisco, St. Louis, Seattle and Washington, D.C.

Second, to obtain the most recent and relevant information on truck route management and community impact reduction the Federal Highway Administration – Office of Freight Management and Operations, Transportation Research Board, and University Transportation Centers that specialize in good movement and freight management were contacted. Since these organizations have staff and/or members who are experts in the area of goods movement and freight management research this was a logical first place to begin our research effort.

Third, Metropolitan Planning Organizations and some State Departments of Transportation were contacted. Information gathered from these first two groups of contacts, enabled us to obtain additional public sector engineering and transportation planning contacts in twenty-one cities around the United States who possess local expertise in goods movement.

Fourth, individuals were contacted in the twenty-one cities identified and asked to provide us with information to ten questions that were developed to seek information about how their city's transportation agencies regulate truck movements and address community concerns that are brought to their attention. This survey process to collect the necessary information took place over a four-week period from mid-February to mid-March 2004. Individuals were asked to respond to the following questions:

1) Does your city have truck routes designated by city resolution?
2) What are the total miles in the city street network?
3) What are the truck route miles in the city street network?
4) Is accident data on truck routes/other city streets readily available?

5) Are there any complaints about trucks using non-truck route streets?
6) What are the goods movement problems and issues in your city?
7) Is there any enforcement of truck route regulations? If so, by whom?
8) How are truck routes identified?
9) Does the city have any special truck signage?
10) Is there any other information of value that you can provide?

The information obtained from those whom responded formed the basis of a comparative assessment of what other cities around the United States are doing to move goods into, out of, and within their municipal boundaries. Some information was obtained via telephone interview, reviewing city/state and MPO websites, as well as studies that have been completed or are underway. E-mailing the survey questions was found to be the most efficient and effective method to obtain the necessary responses to the questions provided, although some interviewees preferred to conduct the survey over the phone. The next section of this paper presents the survey results.

## c. Survey Results

Out of the twenty-one cities contacted, eighteen (86%) provided us with information of varying levels of detail to include in this report based on the availability of resources to the interviewee in the short time frame that we requested information, and the first hand level of knowledge that the interviewee had about goods movement and trucking regulations and issues. Information from the cities of Denver, Houston and St. Louis was not available in time to include in this study and limited information was obtained from Atlanta and Buffalo. The information contained in this section of the report follows the same sequential order of the survey questions. Results obtained from the survey is provided in the write-ups along with additional information of value. In general, many of the interviewees indicated that they often looked to New York City as a leader in the regulation of truck movements. Additional information about the actual survey responses provided and contact information is available in the Appendix.

Officially Designated Truck Routes

Every city that responded to the question of whether or not they had some type of officially designated truck route by city resolution noted that they either had an officially designated truck route, a *de facto* system of truck route streets, and/or truck bypass routes. *Fifty percent (9 of 18) of the cities had some form of officially designated truck streets. More specifically, thirty-nine percent (7 of 18) of the cities have an officially designated system of truck routes designated by city resolution. Eleven percent (2 of 18) of the cities had truck routes that were designated by the state. Fifty percent (9 of 18) of the remaining survey respondents said they did not have any officially designated truck routes by city resolution.* The nine cities with officially designated truck routes varied in population from 124,000 (New Haven) to 2,900,000 (Chicago), with most cities ranging in population from 300,000 to 600,000.

New Haven does not have any truck routes that were designated by city resolution, but instead were authorized by the State Traffic Commission, in consultation with the local Traffic Authority. Indianapolis has a truck route along a 12-mile section of Meridian Street, which is a major downtown north/south through street, but this truck route was also not designated by city resolution. The City of Portland designates the function (classification) of all streets within the city limits, including those designated to function as truck streets. These classifications include both city streets and highways or arterials under the purview of the state. Portland's Street

Classification and Description Policies are contained within the Transportation System Plan (Chapter 2, Transportation Element), an element of the City's Comprehensive Plan. The City's Comprehensive Plan, and hence, the Street Classification and Description Policies, are adopted by ordinance.

Percent of City Streets that are Truck Routes

Three of the seven cities (Chicago, Dallas and Portland, Oregon) that had officially designated truck routes by city resolution were able to provide us with both the total number of street miles and truck route miles. *In Chicago approximately 16% of the street network is designated as truck streets.* There are 880 miles of designated truck streets (along boulevards) out of 3,775 miles of street and 1,900 miles of alley in Chicago. *In Portland, Oregon approximately 13% of the street network is designated as truck route streets*. There is 480 miles of designated truck streets out of 3,805 miles of improved street in Portland. In Dallas there is 225 miles of designated truck streets out of 11,445 *lane miles* of city streets.

Availability of Accident Data on Truck Route and/or Other City Streets

In most cases vehicle accident information was available through both the city police and traffic engineering departments, with one MPO (Southeast Metropolitan Council of Government, Detroit) maintaining its own crash information database. *Forty-four percent (8 of 18) of those surveyed reported that their department does not maintain an accident database on truck routes and/or other city streets that is readily available. Thirty-nine percent (7 of 18) reported that they did have such a database*. Three interviewees were unable to provide any information as to the availability of accident data in their cities.

Sacramento has a database that can indicate accident history, but it cannot separate out truck accidents. Washington D.C. has identified problem truck accident locations and it is apparent that truck accidents are common at some intersections where there is a high volume of trucks.[70] About 10% of all accidents involve trucks. However, trucks constitute only about 5% of traffic. Trucks are over-represented in accident rates relative to their percentage of total traffic.[71]

Complaints Received About Trucks Using Non-Truck Route Streets

Responses to the question about complaints generated from trucks using non-truck routes were received from eighty-three percent (15 of 18) of those cities surveyed. *Two-thirds of the respondents (10 of 15) reported that the most frequent complaint their department received was related to trucks driving on local streets in residential areas*. Truck related complaints were likely to be generated from persons residing in close proximity to commercial/industrial areas and in neighborhoods that were changing over from commercial/industrial use to residential use. Respondents also received complaints about trucks traveling before and/or after the permitted hours of operation on designated truck routes (2); trucks idling (2); overweight vehicles (2); trucks double parking (1); lack of overnight parking (1); elimination of truck parking from city streets (1); lack of enforcement of truck regulations (1); and quality of life issues pertaining to safety, speed, size, and noise (1). Portland reported that their "No Trucking" signage was

[70] *District of Columbia Motor Carrier Management and Threat Assessment Study Preliminary Findings*. Volpe National Transportation Systems Center, Research and Special Programs Administration, U.S. Department of Transportation. October 2003. Page 12.
[71] *District of Columbia Motor Carrier Management and Threat Assessment Study: Final Draft for Review*. U.S. Department of Transportation, Research and Special Projects Administration, Volpe National Transportation System Center. April 2004. Page 27.

confusing because it allows local deliveries and not the outright banning of all trucks, which is what some truckers and areas residents believe, is the case.

Types of Goods Movement Problems

The types of goods movement problems mentioned by the respondents (14 of 18) were similar in nature to the responses given to the question of what complaints their departments received by trucks using non-truck route streets. *Three of the highest reported goods movement problems reported were: trucks using residential streets (8); oversized, over height, and overweight vehicles (7); and curbside loading (7).* Those responses were followed in order by: inadequate street/bridge condition and dimension (4); trucks using local streets (3); trucks double parking (3); lack of street network available for trucking due to new restrictions (2); trucks idling (1); congestion (1); at-grade rail crossings (1); limited resources for improvements (1); truck conflicts with pedestrians, bicyclists, and transit (1); freight/industrial proximity to residential/commercial areas (1); insufficient enforcement (1); border restriction mismatch (1); high truck volumes (1); speeding (1); and construction noise and vibration (1).

In the downtown area of Chicago, double parking and the misuse of loading zones have been problem areas requiring greater enforcement. Chicago has mandated that double parking be considered a moving violation, rather than simply a parking violation, thereby increasing the penalty and making it possible to tow a vehicle for a double parking offense.[72]

Enforcement of Truck Route Regulations

*With regard to the enforcement of truck route regulations, in twelve of the eighteen cities the local city police were the law enforcement agency responsible for addressing infractions of this nature*. *In six of the cities the State police enforced truck regulations on State highways and Interstates.*

Identification of Truck Routes

*Eight of the eighteen (44%) cities have officially designated truck routes by either city resolution or state authority (Table 5-1). All of the cities with officially designated truck routes utilized mapping and/or signage to identify truck routes*. Five of the cities identify truck routes by truck route maps and six utilize truck signage to identify truck routes. Three of the seven cities (Dallas, Sacramento and Seattle) identified truck routes with both signage and mapping. Among the cities that used truck route signage most used the standard MUTCD truck rouge sign white background and black lettering. Seattle and Dallas have special color truck signage with dark background (green and black) and white lettering. New Haven has a city map showing truck routes, but it is in need of being updated. Portland noted that they update their truck route maps every five years.[73]

*Ten of the eighteen (56%) cities do not identify truck routes either via signage, maps or any other method of communication, which was not surprising given that they do not have any officially designated truck routes.* However, several of the cities use signage and/or maps to identify truck bypass routes. Detroit has an official city map that showed truck routes, as did the County and MPO, and is in the process of identifying truck routes for possible future designation. Indianapolis uses signage with white background and black lettering to identify

[72] Ibid; page 19.
[73] Ibid. Page 28.

truck and bypass routes.

**Table 5-1: Identification of Truck Routes**

| City | Truck Map | Truck Signage |
|---|---|---|
| Chicago | | X |
| Dallas | X | X |
| Indianapolis | | X |
| New Haven | X | |
| Pittsburgh | | X |
| Portland | X | |
| Sacramento | X | X |
| Seattle | X | X |

*Other Information of Value*

Several survey respondents mentioned that their MPO was involved in goods movement by conducting studies and/or holding freight forums composed of City, State, MPO and any other public or private sector freight interests. Currently, several of the cities interviewed mentioned that they are in the midst of employing strategies and/or conducting studies to improve the regulation of the truck traffic and reduce community impacts.

Baltimore, Maryland

Baltimore DOT has created Local Truck Zones to protect roadways in certain neighborhoods from being unnecessarily used by through trucks. Permanent signs notify truck drivers of restricted areas and provide alternate routes for trucks passing through the Local Truck Zone. The only time that the Baltimore DOT uses Variable Message Signs is to alert drivers of new truck restrictions, as was recently done on Dundalk Avenue. The Baltimore Metropolitan Council (MPO) has a Freight Movement Task Force that is working towards improving truck stops, improving truck signage and developing enforcement and education initiatives. The Task Force is working with the Maryland DOT to develop a new map of truck routes.[74]

Boston, Massachusetts

The Boston Transportation Department (BTD) manages freight movement on local streets to minimize the impacts on residential neighborhoods and preserve truck access for businesses. BTD has encouraged responsible truck access in the city by:

- Requiring that all business-related parking including loading activities be on-site.
- Designating loading zones on city streets for commercial vehicle access up to one hour.
- Prohibiting commercial vehicles with a capacity greater than one ton from parking on all city streets between 9:00 PM and 8:00 AM, and on Sundays, except when loading or unloading.
- Requiring that commercial vehicles that back into curbs on city streets provide an

[74] Ibid. Page 16.

unobstructed roadway of at least 20 feet on two-way streets (10 feet on one-way streets).
- Ensuring that trailers and semi-trailers that are parked on city streets be attached to a motor vehicle capable of towing it.
- Prohibiting heavy commercial vehicles from transporting hazardous material on certain streets and tunnels in the region.[75]

BTD is actively pursuing various proposals to minimize the impacts of truck traffic, while also preserving industrial areas in the Back Streets area. The City is trying to encourage Back Street businesses to develop good neighbor policies such as:

- Meeting with neighborhood groups to address quality of life issues;
- Enhancing pedestrian safety;
- Encouraging trucks to use the region's highways and other limited-access roads, thus avoiding neighborhood streets;
- Reorienting public facilities away from truck access conflicts, loading areas and community life;
- Encouraging business related parking to be on-site; and
- Stricter enforcement of the law prohibiting idling of engines for more than five minutes.[76]

Truck access improvements have also been studied and several truck bypass roads are being considered along underutilized rail rights-of-way. Truck access improvements were studied in South Boston, East Boston and Charleston, with future improvement identified in the Newmarket/Crosstown and Allston/Brighton districts. The impact of freight operations and rail service on truck usage is being evaluated as part of the Beacon Park freight facility. The *South Boston Truck Route Study* recommends roadway improvements that will keep trucks off of residential streets and ensure that they have a more direct route to the Boston Marine Industrial Park, Gillette and United States Postal Service facilities, located in the Fort Point District. Work is continuing on the implementation of a truck route bypass road in East Boston on right-of-way that CSX is abandoning and that City is interested in. A grade separated bypass road on this abandoned rail corridor could also be used to provide bus rapid transit service. A study will be done to develop a Medford Street Bypass Road by preserving the rail right-of-way to Moran Terminal in order to possibly use it in the future as a freight bypass road.[77]

The City of Cambridge outside of Boston has been actively engaged in regulating truck movements in their City. In January 2003 an ordinance was enacted to restrict through nighttime truck traffic traveling between 11:00 PM and 6:00 AM along certain streets. Truck routes were implemented through an extensive outreach program that provided information to truck drivers and trucking companies through pamphlets, websites and telephone hotlines. The City police in Cambridge enforce regulations in the ordinance. The City has found that the acceptance of designated routes by truck drivers and trucking companies depends, in part, upon the condition of the roadways used for the approved routes. Roads in good condition are much more likely to be used and welcomed by drivers.[78]

[75] *Access Boston 2000-2010*. Boston Transportation Department. March 2003. Page 101.
[76] Ibid. Page 107.
[77] *Access Boston 2000-2010*. Boston Transportation Department. March 2003. Page 108.
[78] Ibid; pages 17 and 18.

Chicago, Illinois

Both the City of Chicago DOT and the Chicago Area Transportation Study (CATS) MPO are actively engaged in goods movement. CATS manages the Intermodal Advisory Task Force which is responsible for planning improved freight facilities and educating the public about the importance of freight movement to the local economy. The Chicago DOT maintains viaduct clearance information on its website (http://www.cityofchicago.org/Transportatoin/viaduct/). Viaduct clearance data is available by street in tabular format for the entire City or you can click on a map of different wards and see a list of streets that have viaduct clearance restrictions in a particular area of the City. In Chicago, the maximum width, height and length of tractor trailers and semi-trailers is the same as New York City's.

Dallas, Texas

When the City of Dallas Department of Public Works and Transportation designs new truck routes it ensures that the pavement can withstand the weight of the trucks that will use it. The City of Dallas prohibits trucks from passing through streets in the central business district, parks and other areas in the City, except when making local deliveries. Freight loading zones are in effect between 6:00 AM and 6:00 PM, except Sundays and major holidays, unless signs or marking specify otherwise. In a loading zone the maximum amount of time to load and unload vehicles is 30 minutes unless special permission is granted from the Chief of Police or the Director. It is an offense for a truck to travel off a designated truck route on streets adjacent to single-family and duplex residences between 10:00 PM and 6:00 AM on any day.

The North Central Texas Council of Governments (MPO) is involved in goods movement, having just produced a Truck Route Network for hazardous materials and completed a survey of local trucking firms. The survey contained 21 total questions and space for comments and was completed by 20 respondents. The following responses to their survey questions are of particular interest to the NYCDOT truck management study:

- Ninety percent found that the increased use of Dynamic Message Signs to relay information about road conditions and travel times is helpful or very helpful.
- Sixty-five percent would find it helpful if there was more public data on current road conditions and travel times for dispatchers to transmit via in-cab communication devices to drivers.
- Respondents were mixed as to how helpful lane restrictions would be to them and thought that it would not be helpful to support any local ordinance that limits truck idling time.
- Many respondents did not find it helpful or harmful to implement a local ordinance requiring businesses to accept deliveries at night, but more thought it would be helpful to them, rather than harmful.
- Most would find it helpful if major manufacturing or retail locations were required to provide additional on-site truck parking.
- A large majority would find it helpful if there are rest areas in downtown Dallas and downtown Forth Worth where truckers could get directions, buy fuel, obtain real-time travel information, rest, connect to shore power, etc.
- When asked if they would make more deliveries at night if a local ordinance was passed that required businesses to accept deliveries 24-hours per day, nearly half said they would not change, forty-two percent would deliver at night, and eleven percent would not deliver at night.

- In the comments area some of the recommendations made were: physical improvements, prioritization of use of message signs, and a program where trucks would be qualified for 90 days to be exempt from random DOT stops.

Detroit, Michigan

The City of Detroit DOT is in the process of identifying truck routes. The Freight Committee of the Southeast Metropolitan Council of Governments (MPO) is currently developing a background paper on goods movement.

Los Angeles, California

In the Los Angeles area several studies have been done to identify truck routes, truck bypass routes and truck lanes. The City of Los Angeles created a Traffic Action Team to respond to traffic emergencies and other special circumstances, including circumstances involving trucks.[79] The highly charged nature of designating truck routes has prevented them from being implemented, although there are several streets in the City that are *de facto* truck routes. The Southern Council Association of Governments (MPO) produces several goods movement studies a year and discusses freight issues at their Good Movement Advisory Committee. The Metropolitan Transportation Authority is also involved in truck movement. The METRANS University Research Center is another institution that performs research and goods movement studies. The Ports of Los Angeles and Long Beach have several efforts underway to minimize impacts to residences. Several studies completed have considered the possibility of building publicly financed truck tollways and concluded they would make enough money to be financially feasible.

Miami, Florida

The City of Miami and Miami-Dade MPO has tried to designate truck routes, but they have faced community opposition when attempting to implement such trucks routes, which has stopped the process from moving forward due to the politically sensitive nature of this issue. Outreach efforts have been made to the freight community and the general public. A newsletter was produced to show the public the important role that trucks play in moving freight in the region, as well as other information of interest pertaining to trucking. The Miami-Dade MPO is undertaking a *Trends in Heavy Truck Traffic Management Study* to research trends in the management of heavy truck traffic in major cities throughout the United States and the world, to find out what works best to reduce motorists' concerns and maintain the movement of goods.

New Haven, Connecticut

There is an environmental research and education program in New Haven to reduce the impacts of truck traffic air pollution on local residents. In 2003, the City Planning Department was awarded an EPA Healthy Communities grant. This grant will allow the City to implement their risk reduction strategy by encouraging voluntary retrofitting and use of ultra-low sulfur diesel by private diesel fleets and organizing a local ultra low sulfur diesel fuel buying group that will help speed up the process to get the fuel program up and running.

[79] *District of Columbia Motor Carrier Management and Threat Assessment Study Preliminary Findings*. Volpe National Transportation Systems Center, Research and Special Programs Administration, U.S. Department of Transportation. October 2003. Page 28.

Portland, Oregon

The City of Portland, Transportation Planning Division of the Office of Transportation is in the process of producing a Freight Master Plan. The Freight Master Plan "will emphasize freight mobility and access to regional and state highways, industrial areas, intermodal and terminal facilities, centers, main streets, station communities, and at the interface of residential neighborhoods and freight districts. Research and analysis will focus on the identification of system needs and deficiencies, opportunities, street project design and project prioritization." Portland is considering innovative ways to fund freight-oriented projects such as: the use of weight and miles fees, truck regulation fees, and a fee based on the truck traffic generated by a particular business. Portland is very strict about truck activity around construction sites. Every major construction project requires a truck management plan, which must include information about the staging and idling of trucks. Portland also coordinates with the State of Oregon to distribute permits for overweight trucks.[80]

The Portland Metropolitan Government (MPO) has a Regional Freight Committee that in conjunction with the Port of Portland has produced a regional commodity flow assessment and is currently engaged in furthering the base of goods movement information through a freight data collection effort, including an origin and destination element (for trucking).

The State of Oregon has formed the Oregon Freight Advisory Committee, which works closely with Oregon Department of Transportation staff and the Oregon Transportation Commission. The Oregon Department of Transportation has produced several documents relating to freight, including *Freight Moves the Oregon Economy*. They are presently engaged in creating a statewide commodity flow assessment.

San Francisco, California

In 2001, San Francisco proposed a ban on all trucks greater than 25 feet in length from traveling in a portion of the downtown area between the hours of 7:00 AM and 7:00 PM, but the ban was never implemented due to political pressure from the local business establishments. Loading and unloading of trucks is mostly done directly from the street. The City has installed parking meters in some parking zones. Parking permits related to construction are very detailed and strictly enforced by the Department of Parking and Traffic.[81]

Seattle, Washington

All arterial streets in the City of Seattle are considered truck streets. Major truck streets are designated in the Seattle *Comprehensive Plan* as streets where trucks are encouraged to travel and that require specific management and design attention to ensure that they remain viable. The maximum width for any vehicle is 102-inches, for a tractor and tandem trailers the maximum height is 14-feet, and the maximum length for all vehicles is 59-feet (up to 70-feet in special circumstances). There is a 30-minute maximum time for commercial vehicles to park in a truck loading zone.

The Port of Seattle has a *Truckers' Guide* that is required to be in the cab of the truck driver, is easy to read, covered in plastic, and was developed to allow truck drivers to determine if they

[80] Ibid. Page 24
[81] Ibid. Page 25

are on the proper streets that they are allowed to travel on. The Port of Seattle completed this effort in conjunction with the SDOT.

The Seattle Department of Design, Construction and Land Use oversaw the Center City Wayfinding Project. The goals of this project were to develop a wayfinding system for pedestrians, bicyclists, and vehicular traffic to navigate into, out of, and around Seattle's Center City. The final product will include wayside design guidelines for the Center City neighborhoods that will create location, height, viewing distance, and other standards.

The *Seattle Freight Mobility Strategic Action Plan* produced by SDOT was recently released for review and comment. SDOT has established a Freight Mobility Coordinator function to enable them to better integrate freight improvement practices with ongoing SDOT plans, programs, projects and operating practices. SDOT created a truck spot improvement program to address restrictive conditions that may exist on major freight corridors in order to better enable trucks to operate on the existing streets. Improvements that are made include increasing curb radii on critical corners, removing on–street parking in key locations, relocating utility poles that are too close to the curb, installing signs, providing truck queue lanes/holding lanes at major terminal access points, and revising intersection signal control to assist truck movements that now typically require a long wait for an adequate traffic gap.

SDOT has identified the following actions that will be undertaken to improve goods movement:

- Maintain an updated inventory of known obstacles identified by the trucking community;
- Keep an inventory of infrastructure height restrictions facing trucks;
- Maintain a list of truck weight restrictions on bridges and other structures;
- Pursue funding for priority truck access projects;
- Incorporate freight operation design needs and oversized vehicle design standards into the update of the *Right-of-Way Improvement Manual;*
- Review 2005 paving priorities with the freight community;
- Continue to include freight needs under the pavement management program as a criteria in prioritizing street rehabilitation work;
- Solicit freight community involvement in the Paving Partnership Program;
- Pursue grade-separation of key truck streets in heavily used railroad crossings;
- Identify measures to minimize conflicts between trucks and other transportation modes;
- Prepare a truck considerations checklist to provide truck facility guidance to SDOT operations and design functions;
- Protect and improve freight access to manufacturing and industrial areas;
- Continue to improve communication tools to construction-related traffic impacts;
- Continue to work with the business district representatives and individual businesses to install commercial/passenger load zones where appropriate;
- Improve permit processing for truck permits and meter hooding; and
- Continue to coordinate with the freight community and appropriate City staff to outline strategies that help facilitate more efficient local goods delivery.

<u>Washington D.C.</u>

The Volpe National Transportation System Center is in the process of completing the *Motor Carrier Management and Threat Assessment Study* for Washington D.C. Washington D.C. has no designated truck routes, but has a *de facto* arterial system that was developed over time. This $700,000 study (funded through Homeland Defense) looks at how trucks move in the City

and recommends an improved truck management program that considers truck safety, ways to improve the security of Federal buildings, and the protection of neighborhoods from truck traffic that is not warranted. This study identified education, enforcement, new technology, inter-agency coordination, investments in infrastructure, public-private partnerships, regional coordination, regulations and incentives, as important components to consider when managing the movement of truck freight. This study also identified a series of proposed security measures that are worthy of further consideration, but are outside the scope of this project.

Some of the major recommendations of the study include:

- Enforcement of all truck management policies that are developed to ensure that there effectiveness in not undermined.
- Informing the owners and operators of trucks of any new rules governing truck operations, and providing information through printed brochures, websites, and telephone hotlines, while offering members of the trucking industry mechanisms for commenting upon new polices and routes.
- Investing in the infrastructure used by trucks to encourage the use of designated truck routes and keep them off of less desirable roadways.
- Utilizing innovative pavement materials, designed to dampen the whining noise caused by the sound of tire meeting road.
- Enforcing the noise ordinance to reduce noise by using a 'noise cam' to track offending vehicles.
- Creating a program to fund small, quick-fix projects.
- Increasing fines for overweight trucks.
- Adding permanent truck inspection points at major gateways to the District.
- Employing civilians who would have the authority to write truck-related tickets.
- Developing a proactive approach to informing truck operators about major traffic disruptions.
- Working with Federal agencies (and other institutions) to standardize and coordinate their security procedures.
- Consider converting loading zone and double-parking violations to moving violations – with an attendant increase in penalty.
- Extending peak period no-parking restrictions to 11:00 AM in some areas.
- Working with owners and operators of facilities that generate significant truck traffic to develop plans for improving the efficiency of their individual truck activities.
- Moving loading zones to the corner so that trucks do not have to parallel park.
- Re-examining the City's solid waste collection policy to reduce the number of garbage trucks on the street each day. [82]

The *Motor Carrier Management and Threat Assessment Study Phase II Preliminary Findings* report released in December 2003 by the Volpe National Transportation System Center presents truck route recommendations, pilot truck parking study results, revised security procedures, recommendations for the Motor Carrier Office and a recommendations matrix. Stakeholders who participated in the truck parking study made the following short-term and long-term recommendations:

- Expansion of morning parking restrictions;

[82] *District of Columbia Motor Carrier Management and Threat Assessment Study Preliminary Findings*. Volpe National Transportation Systems Center, Research and Special Programs Administration, U.S. Department of Transportation. October 2003. Pages 14, 15, 17, 53-56.

- Implementation of a maximum time that vehicles can occupy a load zone;
- Greater enforcement of parking regulations;
- Elimination of multiple and confusing signs;
- Publicizing the DPW tow-away hotline, which accepts complaints about illegally parked vehicles;
- Increasing fines for parking offenses; and
- Consideration of a fee based system whereby couriers pay a premium to have parking spaces reserved solely for their vehicles during their peak delivery times.

## d. Conclusion

The results of the survey indicate that in many respects the City of New York is at the forefront of regulating the movement of trucks. In fact, many of the interviewees indicated that they often looked to New York City as a leader in the regulation of truck movements. However, there are a number of initiatives undertaken by other cities which are worthy of further consideration by NYCDOT which are included in the Recommendations section of various Technical Memoranda which were prepared as part of this study effort.

# 6. REVIEW OF THE NYMTC *REGIONAL FREIGHT PLAN*

As part of the NYMTC Regional Freight Plan Project, two "Public Draft" reports were released in April 2004. These reports present alternative improvement packages to "minimize the cost and improve the reliability of freight movement with the region and protect interest of communities." As part of this project, proposed physical changes to the roadway network were defined and assessed using NYMTC's Best Practices regional travel demand Model (BPM) with a Baseline year of 2025.

Short term (one to three years), mid term (three to 10 years) and long term (more than 10 years) capital projects, operational improvements, and policy changes to improve the movement of freight within the NYMTC region were developed. The existing and future conditions of the following five most important regional freight corridors were analyzed: Northern Crossing corridor (I-95) - George Washington Bridge, Cross Bronx Expressway and Major Deegan Expressway; Southern Crossing corridor (I-278) - Goethals Bridge to Verrazano Narrows Bridge; Eastern corridor (I-278) - Gowanus Expressway and BQE; Eastern (I-678) corridor - Van Wyck and Clearview Expressways from the north to JFK International Airport; and Southern Brooklyn-Queens to JFK corridor - Atlantic Avenue, Linden Boulevard, the Belt Parkway and the Bay Ridge Branch of the LIRR.

NYCDOT was identified as the institutional organization that would be responsible for studying and implementing a series of actions that were developed. The following items coincide with recommendations presented in *Technical Memorandum 2, Truck Routing Analysis*:

a. Developing alternatives for providing greater access to national standard 53-inch long, 102-inch wide tractor trailers;

b. Expanding the commercial parking program in Midtown Manhattan and assessing impacts;

c. Encouraging off-peak deliveries in the CBD through a combination of incentives and curbside regulations;

d. Expanding the Integrated Incident Management System (IIMS);

e. Providing real time traveler information to commercial vehicle operators;

f. Accelerating the expansion of ITS;

g. Assessing options for improvements to the major routes (Eastern – I-678 and South Brooklyn / Queens) to the JFK Airport/Industrial corridor;

h. Strictly enforcing current truck routes and restrictions;

i. Targeting roadway geometry improvements at the most critical intersections;

j. Improving signage for truckers; and

k. Improving operations of loading and unloading zones in Manhattan to facilitate efficient delivery of air dependent courier packages.

Many of these actions are currently under consideration by the NYCDOT as part of this truck study and/or other work efforts or have been adopted. Some of these action items include: expansion of the IIMS and ITS; providing real time information to commercial vehicles; encouraging off peak deliveries in the CBDs; stricter enforcement of truck routes and regulation; targeting of roadway geometry improvements at key intersections; and improvement of truck signage. Still other action items mentioned such as: providing access for trucks greater than 53-feet in length and 102-inches in width; further expanding the commercial vehicle parking program in Manhattan and allowing commercial vehicles on parkways/expressways to JFK airport have been explored in the past and deemed unfeasible, but may be considered sometime in the future.

Allowing trucks to utilize sections of parkways (i.e. Grand Central Parkway, Henry Hudson Parkway) or other truck-excluded routes or to permit small trucks and vans to travel on HOV lanes (i.e. SIE, Gowanus) would have to be evaluated by a number of public transportation agencies in the region, including NYCDOT, to ensure that any potential impacts to the traveling public and the local communities are considered and mitigated, as necessary. NYCDOT should continue to review any planned physical improvements and new policies related to the: Van Wyck Expressway, Highbridge Interchange, Cross Bronx Expressway, Brooklyn-Queens Expressway, Long Island Expressway, Staten Island Expressway, Linden Boulevard, Clearview Expressway, Goethals Bridge (all the Hudson and East River bridge and tunnel crossings) Sheridan/Bruckner Interchange; as well as freight ferries, freight villages, rail freight system, port facilities, airport access, and pricing on toll facilities.

The studies performed as part of the NYMTC *Regional Freight Plan* project highlight the importance of interagency coordination to implement any of the alternatives. Although NYCDOT is not the implementing agency on a significant number of the alternatives presented in the *Freight Plan*, NYCDOT will continue to have a direct role in working with other transportation agencies in the region to move those projects forward that will provide a direct benefit to people living, working and visiting the City of New York.

# 7. RECOMMENDATIONS

## a. OVERALL MANAGEMENT

### 1. Establish an Office of Freight Mobility within the New York City Department of Transportation.

It is recommended that NYCDOT establish an Office of Freight Mobility (OFM). With the growth in freight volumes and increasing pressures in New York City to manage truck traffic, this office will allow NYCDOT to have a professional staff dedicated to the overall management strategies involved in Goods Movement. This office will serve as the agency's primary point of contact on issues relating to Goods Movement, and can play a critical role in the management of freight mobility on all relevant modes of transportation, including highways, rail and air.

This office will enable the City, and more specifically, NYCDOT, to better integrate freight improvement practices with ongoing plans, programs, projects and operating practices being carried out by the Department of Transportation and other agencies in the region.

It is further recommended that the OFM establish itself as the Department's leader on issues relating to:

Improved Agency Management of Truck Routes

- Working with the New York City Police Department, the various divisions within NYCDOT and other city and state agencies, implement techniques to improve the overall enforcement and management of the Truck Route Network. This includes the development of databases to monitor truck complaints through the use of Geographic Information Systems (GIS).
- Foster an improved dialogue with other City and State agencies regarding truck issues including construction projects, long term and strategic planning and other initiatives to improve the roadway system and goods movement in New York City.

Communication and Coordination with Constituencies

- Play a critical role in the monitoring and categorizing of public input from direct correspondence and 311 calls. The Office should establish a strong relationship with the Department's Customer Service Division to ensure the appropriate response and information is provided to all relevant stakeholders. This includes direct communication from 311 transferred calls, response to direct correspondence, and other constituent driven input. Office should also directly interact with the DOT Borough Commissioners to ensure appropriate response regarding truck issues.

- Establish and foster partnerships to achieve the specified goals. The Office should work with other freight stakeholders to identify shared interests and synergies and overcome differences.

- Lead development and implementation of training and education initiatives for the public and private sectors. This would include the development and implementation of many of the materials and programs identified in this Technical Memorandum.

Program Management

- Assist in the shaping of freight mobility policies in the region, including coordination with all relevant stakeholders and governmental agencies, and ensure they are in concert with strategic objectives.
- Act as key point of contact for freight issues. As the main point of contact for freight interests at NYCDOT, interact at the city, state and federal level with other Freight Coordinators/officials, initiating dialogue as needed, as well as coordinating with economic development agencies, the private sector, and other stakeholders to develop strategies for freight transportation improvements.
- Represent the Department on freight movement matters, including public interaction and with national committees (e.g., the American Association of State Highway and Transportation Officials, and the Transportation Research Board).

Planning and Analysis

- Conduct studies and provide tools that effectively address goods movement issues in planning, investment and programming decisions.
- Direct and provide technical and policy analysis, especially of the impacts of policy decisions and legislation. Provide technical support to the organizations on transportation, demographic, land use, and economic development issues.
- Assist in the daily integration of truck issues on an agency level. This includes working with operational groups on issues relating to truck routes, requests for signage, conducting of traffic studies, and other related activities, whereby the office could provide specialized information or resources.
- Investigate and integrate intermodal opportunities for improved goods movement in the region.
- Study truck volume and traffic flows as they relate to infrastructure rehabilitation and street maintenance.
- Investigate techniques and programs to improve curbside management of commercial vehicles and trucks.
- Integrate truck mobility with issues relating to street management techniques, including traffic calming practices.

## b. ROUTING

### 2. Revise the Truck Route Network

A series of modifications are recommended to the Truck Route Network. These additions/deletions and substitutions are provided in *Technical Memorandum 2*. These changes are based on an assessment of problem areas identified by the public, field observations and land use conditions. (See *Technical Memorandum 2 – Truck Routing Analysis*)

### 3. Permit 53-foot long trailers with widths up to 102-inches on more Interstate highways in the City, with increased enforcement of 53-foot trailer travel on all other streets.

NYCDOT should work with NYSDOT and pursue State legislation to expand a portion of the City's Interstate highway network to allow tractor-trailer combinations with containers 53 feet long and widths up to 8'-6". However, it is critical that the City also aggressively enforce the regulations against trucks with 53-foot trailers on all other streets – where they would continue to remain illegal. Enforcement would be particularly important in communities in proximity to these highways.

Central to this recommendation is the legalization of the movement of 53-foot trailers along the entire I-95 (Cross Bronx Expressway/TransManhattan Expressway) corridor. This is a vital lifeline for regional goods movement and is frequently highlighted as a regulatory problem that was created by the regulations established during the 1990s. NYCDOT and NYSDOT should also consider including the Hutchinson River Parkway/ I-87, a major north-south corridor for international commerce that provides access to the primary east-west interstate roadways in the New York State Region.

The second goal is to improve access to John F. Kennedy Airport by allowing the movement of these vehicles on the Van Wyck Expressway. The Air Cargo industry is dependent upon 53-foot trailers to move a large amount of their goods. Currently, restrictions prohibit these trucks from 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 Expressway.

In addition to on-airport cargo facilities, it is recommended that the Department investigate opportunities for off-Airport access to businesses within close proximity to the Airport and along primary roadways such as Rockaway Boulevard and the Nassau Expressway. This can be facilitated through the creation of a 53-foot Trailer Zone and specific access routes for these types of vehicles. It is also recommended that the Department of Transportation incorporate the Nassau Expressway into the Truck Route Network.

The following roadways should be considered for this initiative:

Manhattan

| | |
|---|---|
| Trans Manhattan Expressway (I-95) | George Washington Bridge to Alexander Hamilton Bridge |

Bronx

| | |
|---|---|
| • Cross Bronx Expressway (I-95) | Alexander Hamilton Bridge to Throgs Neck Expressway (I-695) |
| • Hutchinson River Parkway (I-678) | Cross Bronx Expressway to Bronx-Whitestone Bridge |

*A secondary corridor for additional consideration in the Bronx includes the Major Deegan Expressway.*

| | |
|---|---|
| *• Major Deegan Expressway (I-87)* | *Westchester County Line to the Cross Bronx Expressway (I-95)* |

Queens

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

**4. Explore opportunities to permit courier vans and small delivery vehicles to use selected parkways.**

While the increase in traffic demand continues to grow, particularly on routes used by trucks, the City's network of parkways is underutilized at various times of the day. Approximately 50% of the commercial truck traffic traversing the Boroughs consists of delivery vans. Diverting small delivery trucks (<8000 to10000 pounds) and courier vans to portions of parkways could remove these vehicles from other corridors and the street network – as demonstrated by NYCDOT on the Grand Central Parkway (between the Triborough Bridge and the Brooklyn-Queens Expressway). However, there are numerous engineering, safety and regulatory obstacles that would need to be overcome to allow these types of vehicles in any capacity on other parts of the parkway system.

Locations that warrant further consideration are:

Manhattan
Henry Hudson Parkway - 125th Street to 175th Street / GW Bridge

- Would provide relief to Broadway which is one of the only Truck Routes on the West Side of Manhattan and is the route for New Jersey and Cross Bronx bound trucks and commercial vehicles.

Queens
Grand Central Parkway - BQE Ramp to Kew Gardens Interchange/
Van Wyck Expressway

- Would eliminate the need for vehicles to travel on the local arterials for a significant distance and provide access to virtually all parts of Queens and critical roadways (i.e. Northern Boulevard, Van Wyck / Whitestone Expressway)

Brooklyn
Belt Parkway - Portions based upon geometric constraints

The Belt Parkway has often been suggested as an appropriate corridor for small trucks due to the lack of adequate truck routes in Southern Brooklyn. However, there are many engineering, operational and regulatory obstacles that would need to be overcome to allow such an initiative on this corridor in any capacity. NYCDOT has raised strong concerns about safety limitations and the lack of roadway geometry to accommodate even small commercial vehicles on this roadway. However, the Belt Parkway has been identified in goods movement studies undertaken by the NYSDOT as a possible courier van truck route.

**5. Eliminate the Limited Local Truck Routes**

Limited Local Truck Routes only apply to Staten Island. These routes are restricted to vehicles with two axles and no more than 6 tires, and prohibit vehicles with three or more axles. The City's definition of truck does not include commercial vans with two axles and four tires; there is apparently no need for this truck route category. The elimination of the limited local truck route would prohibit all trucks from traveling along these roadways, except for making local deliveries and would further simplify the Truck Route Network to Local and Thru Truck Routes.

**6. Eliminate the Limited Restriction Zones in Manhattan**

As part of the previous Truck Route Study, the Department established a set of limited Truck Restriction Zones in Manhattan. There are no other areas where such restrictions exist. These zones include portions of Chelsea, Chinatown, the Greenwich Village, Little Italy and the Lower East Side. Under this system, no truck was permitted to operate, enter, stop, stand or park his/her vehicle on any of the streets within the zone except for the purpose of making a delivery, loading or servicing within said zone.

Over the past twenty years, changing land uses, decline in businesses and industry and the expanded residential nature of many of these zones has distorted the boundaries for these limited restriction zones. In addition, the existing truck route regulations for Local

and Through Truck Routes mirror the routing restrictions in place in each of the zones. Enforcement and signing of these specific areas is also difficult.

It is recommended that these Limited Restriction Zones be removed from the Traffic Rules and this rule rescinded. Trucks will still be required to remain on the designated truck routes in each area (whether local or through) and leave these routes only at the intersection closest to their destination. Under the expanded signage program, additional positive and negative signage should be installed to ensure compliance with the Truck Route Network. It should be noted that many of these roadways already have an extensive network of positive and negative signs posted already.

It is recommended that all other restrictions pertaining to trucks in Manhattan, such as those governing size limitations in the Garment District, Financial District, and Midtown core should remain.

**7. Place time restrictions on the use of local truck route streets that traverse residential areas.**

Redevelopment stimulated by changes in zoning has created transitional neighborhoods with increasing residential populations and decreasing truck activity. During off-peak hours when the businesses are closed and overall vehicle demand is reduced, the streets in these neighborhoods do not have to accommodate trucks. As a result, some of the streets designated as Local Truck Routes should be closed to trucks to improve the quality of life in these neighborhoods. The cities of Cambridge, Massachusetts and Dallas, Texas have imposed similar time restrictions on streets used by trucks. The recommended time interval for closing the local truck routes would be 10 PM to 6 AM, similar to the two cities cited. This time period should ensure that the commercial business along the route are closed and should end before the beginning of the weekday morning peak period. (See *Technical Memorandum 2, Truck Routing Analysis*). While a number of the corridors have been identified to restrict truck traffic during the evening period, we recommend that NYCDOT conduct a pilot program on Staten Island on one or more of the identified corridors. This will allow the Department to track the effectiveness of this approach and its applicability on the City Truck Route System.

**8. Eliminate the discontinuities of designated truck routes as they cross between Boroughs.**

A self-enforcing program requires that the truck drivers have confidence in the signing of the truck routes. Designated Through Truck Routes must insure the ability to traverse the entire Borough and reach the New York City line once the truck driver has decided to utilize a specific arterial street. There are several streets where the street is initially signed as a Through Truck Route in one Borough but changes to a Local Truck Route when crossing into an adjacent Borough (e.g. Grand Avenue, Flushing Avenue and Greenpoint Avenue in Queens and Brooklyn, and the Queensboro Bridge between Queens and Manhattan).

These issues are delineated on a Borough-by-Borough basis in *Technical Memorandum 2, Truck Routing Analysis*. The City should adopt changes to the Truck Route Network to eliminate these problems.

The designation as Through Truck Route segments for the Queens leg of the above referenced streets was done as a means to provide trucks from the commercial/industrial area on the border with Brooklyn a through route to access the LIE. However, the routes are also used by westbound truckers as through routes in Brooklyn to the BQE when there is traffic congestion on the LIE westbound. "Through" truckers in the latter case are trapped on local truck route streets with no reasonable way of returning to a Through Truck Route. One of the three streets should be designated as a Through Truck Route in both Brooklyn and Queens and the other two streets should be designated as Local Truck Route.

## c. SIGNAGE

### 9. Install a new truck route signing program.

The law does not require the presence of a truck route sign for enforcement. However, the presence of signs provides information that allows drivers to identify the truck routes in each of the Boroughs, guides truckers unfamiliar with the Truck Route Network, and facilitates the enforcement of the truck route regulations. A uniform and comprehensive signing program is described in *Technical Memorandum 3, Truck Signage Program.*This represents the first comprehensive update of Truck signage in New York City in nearly 25 years.

Two of the key features of the Program are the development of a standardized sign design and improved standards for placement. It is recommended that the Department utilize a single, easily identifiable sign design that will allow for improved identification of the Truck Route Network. This recommended program focuses on providing a set of positive reinforcing signs citywide that delineate the route system to the greatest extent possible. As needed, these signs would be supplemented by new standards for the placement of negative signage.

Additional recommendations include the posting of gateway signage at major entry points to the City, advising truckers of the designated route system in New York City.

### 10. Revise policy regarding negative or prohibitive signage on City arterials.

The purpose of the Truck Route Network is to establish controls for governing truck movements throughout the City. While negative signage is not necessary for enforcement, it can be considered an effective tool in addressing intrusion by trucks into residential communities. As part of the overall signage program, it is recommended that the Department revise the standards and criteria for the application of negative signage. In the past, it has been general policy to avoid the installation of negative signage.

Under the proposed signage program, the NYCDOT should adopt a revised policy to revise the criteria by which it determined the placement and applicability of negative signs. This includes a policy that is more consistent in its application and ensures the proper placement and types of signs to reinforce the truck route regulations. A description of the proposed criteria can be found in *Technical Memorandum 3, Truck Signage Program.*

**11. Display truck route advisory information on Variable Message Signs (VMS) on expressways, bridge and tunnel crossings and major arterials.**

Advisory messages should be displayed on the VMS positioned on the expressways, arterials and bridge/tunnel river crossings throughout the City. This would include the dynamic signs that are part of the NYSDOT Advanced Traffic Management System (ATMS) and New York City Department of Transportation JTMC, and the toll facilities operated by the Port Authority of New York and New Jersey and MTA-Bridges and Tunnels. These messages would advise truckers to use the designated truck route streets once they leave the expressways. Arrangements must be made with the operating agencies to develop a single sign message that would be displayed on all VMS and the time periods when the message would be displayed. (See *Technical Memorandum 3, Truck Signage Program*)

**12. Provide advance warning on height restrictions along truck routes.**

There are numerous vertical restrictions on roadways throughout New York City. This includes both limited access arterials as well as the local arterial street network. Subway viaducts, bridges and other infrastructure, both on and off the designated truck routes provide mobility constraints for larger vehicles. While the City provides standardized signage on these approaches, vehicles frequently get stuck or strike these structures. In other cases, these vertical restrictions limit accessibility forcing drivers to find alternate routes and intrude into residential communities.

It is recommended that the Department work to improve signage relating to height restrictions along truck routes, as well as providing information to allow drivers to make routing decisions. This includes, where applicable, additional signage to indicate the obstruction and provide information to bypass the location. Details of this program can be found in *Technical Memorandum 3, Truck Signage Program* for type of signs and *Technical Memorandum 2, Truck Routing Analysis* for locations.

In addition, it is recommended the Department include this type of information on its truck route maps and other resources to advise truckers of restrictions along their route. Finally, all efforts should be made to ensure that accurate information is posted on these structures.

## d. POLICIES AND REGULATIONS

**13. Revise the format and structure of information on the truck related regulations including truck routes, weight and dimension restrictions.**

Understanding the various regulations affecting truck operations in New York City involves searching several web sites and “paging” through the document to find the relevant information. The City’s regulations list height restrictions along City streets in the narrative of the regulations, but does not include a street index to locate the streets or a map that identifies the locations; and the City’s narrative does not include any height restrictions along the expressways. This latter situation could be further confusing to a truck driver because the regulations do indicate a height restriction of 12’-6” at the Brooklyn Battery Tunnel, but the advisory sign at the entrance to the Tunnel indicates a clearance of 12’-1.”

As recommended in *Technical Memorandum 4, Education Program*, the NYCDOT website should be modified to ensure that it is user-friendly and includes the following information:

- Truck route maps for each Borough that accurately show the Through and Local Truck Routes, weight and height restrictions, and other relevant information.
- Truck route maps that identify those expressways designated for 53-foot trailers.
- Quick access to the PANYNJ and MTA Bridges and Tunnel websites to readily obtain information on regulations regarding truck operations at these agencies' toll facilities.

**14. Establish uniformity in definitions and regulations.**

There is inconsistency in the definition of truck, and other terms, between the New York State Motor Vehicle Code, the New York City Traffic Regulations and the Traffic Rules and Regulations for the PANYNJ toll facilities. Apparently, this inconsistency may be a cause in some cases in the administrative law courts as grounds for dismissing summonses for truck route violations. It is recommended that this issue be rectified by providing all relevant stakeholders with the appropriate information and definitions, especially as they relate to issues which are more restrictive under the New York City Traffic Rules. It is recommended that the Department work with the Administrative Law Judges to ensure that city rules and regulations are being maintained. Additional conversations between the City and other relevant agencies (NYSDOT,DMV) may entail a greater differentiation of the terminology and definition of trucks and commercial vehicles.

The New York City Traffic Rules and Regulations definition of truck also differs between the parking regulations (Section 4-01) and the truck routes (Section 4-13 ). The parking regulations also include a definition for commercial vehicle (Section 4-01) whereas the truck route regulations do not. This differentiation should be made clear for all enforcement purposes.

The Department should amend Section 4-13 of the Vehicle and Traffic Rules to ensure the consistency in the definition of a "Local Truck Route" throughout the five boroughs. The current regulations differ in language from borough to borough. The new language indicates that actual routing should take into account street direction and turn restrictions when leaving or accessing a site. This addresses issues where turning restrictions are in place at high volume intersections where turning movements are generally prohibited. It will also ensure that a driver is not unfairly targeted for utilizing a non-designated truck route. The revised definition for each of the boroughs should read:

An operator of any truck as defined in [enter section], having an origin or destination for the purpose of delivery, loading or servicing within the Borough of _____, shall restrict the operation of such vehicle to those street segments designated on the following list as "Local Truck Routes," except that an operator may operate on a street not designated below for the purpose of leaving his/her origin or arriving at his/her destination. This shall be accomplished by leaving a designated truck route at an intersection that provides the most direct route to his/her destination *consistent with existing street directions and turn restrictions*, proceeding by the most direct route, and

then returning to a designated truck route by the most direct route. If the operator has additional destinations in the immediate vicinity, he/she may proceed by the most direct route to his/her next destination without returning to a designated truck route, provided that the operator's next destination does not require that he/she cross a designated truck route.

It is recommended that the Department of Transportation ensure that the Vehicle and Traffic Rules (VTL) is updated to accurately reflect changes made to the route system. This includes changes that may have already occurred relating to street names, changes in height restrictions, and roadways that are identified as both Local and Through routes.

It is recommended that the Department of Transportation work with the other transportation providers in the region, specifically the Port Authority of New York and New Jersey and MTA Bridges and Tunnels to better acknowledge differences between regulations in the City and at these crossings. These include issues relating to weight, length and width, as well as general operating restrictions. Efforts should be made to highlight these differences to motorists, while ensuring the integrity of existing regulations in New York City.

The appropriate city, state and federal agencies should confer to clarify and reconcile issues relating to the STAA rules regarding allowable vehicle dimensions.

It is recommended that the Department of Transportation address the issue of Vertical Clearances in its rule book, as well as posting of signage. In the short-term, it is recommended that the Department of Transportation remove the reference to height restrictions on selected Truck Routes in Section 4-13 of the New York City Traffic Rules. These listings are dated and do not encompass the universe of locations where there are vertical restrictions. Longer term, this recommendation should be coordinated with the recommendation to improve vertical restriction signage citywide. This would include conducting an inventory of all locations where there are restrictions and providing them to the public in an easy to read format, such as on the Truck Route Maps.

It is recommended that the Department of Transportation reconcile existing signage and regulations pertaining to areas where there are 33 foot length restrictions. Given that the City's maximum length for a single unit truck is 35 feet, it is recommended that this standard be applied in these areas as there are numerous trucks that fall between 33 and 35 feet that traverse city streets.

It is recommended that the Department of Transportation address issues relating to the designation of bridges in the Traffic Rules. In addition, it should look to add the Pulaski Bridge in Greenpoint to the Truck Route Network to reconcile existing travel patterns and corresponding regulations.

It is recommended that the Department of Transportation investigate the existing regulations on 34$^{th}$ Street regarding the differentiation between the operation of this corridor as either a Local or Through Route depending upon the time of day. It is recommended that the Department work with the MTA – Bridges and Tunnels and the Port Authority to investigate this issue in additional detail in light of changes that have occurred on both the Hudson and East River Crossings. In light of the existing restrictions, and the nature of 34$^{th}$ Street as a through roadway (many of the turns are prohibited between 3$^{rd}$ Avenue and 8$^{th}$ Avenue), it may be viable to investigate

rescinding these regulations and designate 34th Street as a full time Through Truck Route.

It is recommended that the Department of Transportation reconcile issues relating to the designation of the service roads of the regions interstates as Truck Routes. In some cases, there is no distinction in their designation between the main line and service roads. For the purpose of mapping and displaying these rules, the Department should look to clarify the existing regulations on these service roads and post applicable signage.

**15. Improve contractor accountability in the posting and maintenance of truck signage along detour routes that are established for roadway reconstruction projects; Insure that the signs are covered during non-detour time periods and removed once the roadway reconstruction is completed, and; work with contractors to ensure that all proposed detour routes take into account the movement of truck traffic, while mitigating impacts in residential neighborhoods. In addition, the Department would work to ensure that the specified routes to construction sites are followed to the extent possible.**

Roadway repair and reconstruction can impact the efficient movement of trucks on the local route network. These projects may involve the rerouting of traffic, geometric constraints for larger vehicles and other impacts which affect the movement of trucks. In some cases, this may cause trucks to leave designated truck routes or find new routes. Truck traffic associated with a reconstruction project may also generate a significant increase in truck trips.

Any sidewalk or street closure requires the approval of the NYCDOT Office of Construction Management and Coordination, which conducts an assessment of the vehicular and traffic conditions resulting from the construction project. It is recommended that for major reconstruction projects where trucks are detoured off a major truck route for prolonged periods of time, the applicant/sponsoring agency before applying for a permit should demonstrate the that the detour route can accommodate tractor trailers, large trucks and buses and address the adequacy of all allowable trucks to negotiate turns at intersections. The applicant should also provide capacity analysis at the major intersections of the detour route. It is also recommended that improved enforcement be undertaken when there are substantial diversions on routes with high truck volumes to ensure compliance with posted signage.

In addition, agencies should enhance their work with contractors on major projects to appropriately route traffic to and from a construction site in a manner which would minimize the effects on truck traffic on surrounding communities.

**16. Expand off-peak deliveries in the Central Business District (CBD) through a combination of incentives and curbside regulations.**

The results of the Business and Truckers surveys identified a mutual interest in extending business hours in the morning for the pick-up and delivery of goods. The NYCDOT should implement a pilot program to test the effectiveness of such a program. The suggested time period would be from 5 AM to 7 AM. This time period would allow truckers to get into and out of the City before the start of the normal morning commuter rush hours. The NYCDOT, with the assistance of the Business Improvement Districts (BIDs) and the Department of Small Business Services (DSBS), should identify two or three business areas where most of the merchants would commit themselves to participating in a pilot program. Meetings should then be held with the major trucking companies that service these businesses outlining the "Early Delivery Program".

**17. Address existing limitations regarding Truck Routes in conjunction with CEQR Analysis**

City Environmental Quality Review, or CEQR, is a process by which agencies of the City of New York review proposed discretionary actions to identify the effects those actions may have on the environment. Under CEQR review, there are 20 distinct areas of review and analysis of potential impacts. It should be noted that As-Of-Right developments are not part of the CEQR review process and may have truck impacts on both the roadway network, as well as site-specific (i.e. placement of loading docks).

Currently, the City is in the process of updating the CEQR manual. It is recommended that the Department of Transportation work with the Mayor's Office of Environmental Coordination and other city agencies to identify opportunities to better integrate truck issues into the process. One of the primary recommendations is to expand Chapter 3O (Traffic and Parking) to address issues related to site-generated truck traffic. This is partially due to the non-localized nature of truck traffic. One of the most critical aspects for updating in the CEQR manual is the inclusion of new truck trip rates. In addition, it is advised that the action provide a discussion related to truck trips to be generated by a proposed action, such as the type and size of trucks expected to access the site, as well as a demonstration that roadway geometries on surrounding streets will be able to handle that type of truck. It should be noted that the Department currently asks that CEQR applicants include a discussion related to truck trips expected to be generated by the proposed action, including the size of trucks expected to access the site, the projected routes, locations of loading docks and geometric considerations.

**18. Adoption of cross over mirror requirements for certain trucks**

The Department of Transportation and the City of New York should continue to pursue legislation that would require certain trucks to possess a convex or "cross over" mirror. The proposed bill amends Section 375 of the Vehicle and Traffic Law by adding a new subdivision that would require all trucks, tractors and tractor-trailers or semi-trailer combinations registered in New York State having a maximum gross weight of twenty six thousand pounds or more to be equipped with a convex mirror on the front of the vehicle whenever operated on highways other than controlled-access highways in cities having a population of one million or more.

Convex mirrors are designed to reduce the risk of pedestrian deaths and injuries, which can occur when truck drivers are unable to see persons directly in front of their vehicles. This safety feature eliminates a truck driver's "blind spot" and allows the driver to see any person at least three feet tall at a distance of one foot in front of their vehicle. It is this inability of truck drivers to see the area immediately in front of the truck that has contributed to a significant number of pedestrian deaths in New York City since the mid-1980s. These mirrors have been required on school buses since the mid-1970s to allow drivers to see children crossing in front of buses.

**19. Development and testing of new technologies to monitor and enforce truck regulations including Weight-in-Motion (WIM) and video technology**

The Department of Transportation should explore the feasibility of utilizing new technologies such as Weight-in-Motion (WIM) and other technology to monitor and enforce truck regulations. WIM technology allows a vehicle to be weighed without having to stop and disrupt the flow of traffic and is a proven tool for monitoring and enforcing illegal truck weights in an urban environment. Paired with video technology, this system can be self-enforcing.

Accordingly, the Department of Transportation should continue its pilot program to study and assess the effectiveness of utilizing technology to capture illegal overweight trucks on designated truck routes and off-route trucks illegally leaving designated truck routes in the Greenpoint/Williamsburg section of Brooklyn.

This pilot program seeks to:

- Determine the effectiveness of WIM technology and its applicability on truck routes as a means of curtailing overweight trucks. The proposal calls for installing a WIM sensor at the intersection of Vandervoort and Meeker Avenues in Brooklyn. This is an ideal location since it is located on a legal truck route that cannot be bypassed by trucks destined for the Brooklyn-Queens Expressway.

- Determine whether the information gained from the pilot program is useful for the DOT and the NYPD in terms of using the information for targeted enforcement purposes

- Determine whether DOT should pursue legislation necessary for a more extensive program that would include the issuance of notices of violation.

Through the pilot program DOT is also testing video camera technology at two locations (Kingsland Avenue south of Norman, and Engert Avenue between McGuiness Boulevard and Meeker Avenue) to capture off-route trucks illegally traveling on residential streets intentionally bypassing designated routes.

## e. ENFORCEMENT STRATEGIES

### 20. Improve Enforcement Strategies

Enforcement is essential to ensuring that the effectiveness of regulations is not compromised. The enforcement strategy should maximize the effectiveness of the available staff resources. As a result, it is recommended that the following enforcement initiatives be pursued:

**Establish truck route violations as a quality of life initiative to be monitored as part of NYPD TrafficStat.** This measure would require each precinct to address truck route violation complaints on a weekly basis and to assign the measured level of personnel to respond to the problem. In addition, it will allow for increased monitoring and identification of problem areas and the possibility of implementing other measures to address issues (i.e. Signage or Roadway Design elements).

**Provide additional instruction to police officers so that they understand the regulations particularly the special provisions, if any, that apply to the streets within their precinct.** Police cadets receive less than one day of training on the City's traffic code at the Police Academy. The regulations, especially the truck routes are not reviewed with the officers once they are assigned to their precincts. The NYPD should structure an instruction module to cover the regulations at the Academy and supplement this instruction with more precinct-specific instruction details once the officers receive their assignments. Central to this effort should be precinct-level activities which provide officers with knowledge of all applicable truck routes within the precinct, as well as specific violation codes for truck and commercial vehicles. Instruction should emphasize the need for the written details of the offense to be legible with all necessary information included. More details are provided in *Technical Memorandum 4, Education Program*. The central component of this educational effort is the distribution of Precinct-specific placards with truck route enforcement information for every officer to place in their summons books.

**Set up procedures for logging public complaints**. In terms of agency responsiveness, it is recommended that the Department of Transportation and the New York City Police Department effectively share the information relating to complaints and enforcement. The compilation and tracking of truck complaints and problem locations in a universal database will allow both agencies to maximize their resources and develop appropriate mitigation programs. This may include targeted enforcement, improved informational or directional signs or other mitigation strategies. This information can also be mapped through GIS programs, as well as used during TrafficStat meetings. Within NYCDOT, these can also be transmitted to appropriate operational divisions for action.

Central to the coordination and dissemination of this information is the increased role played by the Office of Freight Mobility. This office should serve as the facilitator for information exchange regarding the Truck Route Network and responding to the general public, enforcement community and other stakeholders.

To this end, it is recommended that the public be encouraged to submit any truck route complaint to 311 rather than contact the local precinct. This action is recommended to ensure that all of the public complaints are included in the database.

**Set up a procedure for deploying personnel at high-complaint locations.** It is recommended that the NYCDOT work with the NYPD to review high complaint areas. NYCDOT's Office of Freight Mobility would play a central role in the process. Locations for enforcement could be generated from agency experience and the 311 complaint log. The disposition of the complaint locations will be determined and appropriate enforcement activities would be developed. It is recommended that efforts be made to track enforcement efforts and the number and type of summonses issued.

**Monitor Summonses and Dispositions.** It is recommended that relevant agencies develop a program to monitor the disposition of the summonses issued to truck operators for various violations including off-truck route, oversize or overweight, etc by the Administrative Law Judges. This information should be made available to the Department of Transportation and NYPD community policing personnel so that they can keep the public apprised of the effectiveness of the efforts to reduce truck route violations in their neighborhoods. This would lead to increased accountability by relevant agencies, as well as indicate trends in violations.

# APPENDIX A

## NYCDOT Truck Dimension and Access Information Sheet

## TRUCK DIMENSIONS AND ACCESS INFORMATION SHEET

| Vehicle Dimensions and Type | | | | Access Allowed Within NYC on | | | Special Restrictions | Permit Required |
|---|---|---|---|---|---|---|---|---|
| Length | Height | Width | Vehicle Type (See Notes Below) | Interstate | Local Truck Routes | Through Truck Routes | | 3 See Below re: where to obtain Permit |
| 48' Trailer Moving Household Goods; Regardless of Total Length | Up to 13'-6" | Up to 8'-6" | Federal STAA1 | Yes | Yes | Yes | Vehicle cannot exceed the lower of Bridge Formula weight or 80,000 lbs. Up to 1-mile access from exit. | For vehicles exceeding any of these dimensions or not meeting the special restrictions, Daily Overdimensional permits are issued for NON-DIVISIBLE loads only. |
| 48' Trailer NOT Moving Household Goods; Regardless of Total Length | Up to 13'-6" | Up to 8'-6" | Federal STAA1 Combination Trailer/Cab | Yes<br>Up to 1 mile access from exit | No | No | Vehicle cannot exceed the lower of Bridge Formula weights OR 80,000 lbs. | For vehicles exceeding any of these dimensions or not meetng the special restrictions. Permit shall not be issued as "household goods" is considered Divisible Loads. |
| 53' Trailer; Regardless of Total Length | Up to 13'-6" | Up to 8' | NYS SDV2 | Limited Route | No | No | Only on I95 from Bronx Westchester County line to I-695; On I-695 fro I-95 to I-295; On I-295 from I-695 to I-495 via Throgs Neck Bridge; On I-495 from I-295 to Queens-Nassau County Line | 53' trailer with non-divisible loads must apply for NYC permit. |
| Up to 55' Total Length | up to 13'-6" | Up to 8' | Combination Trailer/Cab 4 | Yes | Yes | Yes | | For vehicles exceeding any of these dimensions, Daily Overdimensional Permits FOR NON-DIVISIBLE LOADS only are issued. **EXCEPTION: IF** hauling poles, girders, columns or other similar loads, permit required if total length exceeds 60'. |
| Up to 35' Total length | up to 13'-6" | Up to 8' | Single 5 | Yes | Yes | Yes | | For vehicles exceeding any of these dimensions, Daily Overdimensional Permits (for Non-Divisible Loads ONLY) are issued |

**Notes:**

1. STAA Vehicle: Any vehicle authorized by Federal Surface Transport Assistance Act of 1982 (STAA), as amended, when such vehicle is operating pursuant to such Act.
   STAA Vehicle: Includes 48'Lx102"W trailers. Twin 28'-6" tandem trailers, maxicubes, triple saddlemounts, conventional auto carriers and stinger steered auto carriers.
2. NY State defines Special Dimension Vehicles (SDV) as having a 53 ft. trailer with a "41 ft kingpin"(distance between the kingpin of the semi-trailer and the centerline of the rear axle or rear axle group does not exceed 41 feet).
3. Daily Overdimensional Permits can be obtained from the NYC DOT Bridges-Truck Unit, 2 Rector Street, 8th floor New York, NY 10006.
   Telephone: 212-341-3726
   Exception: Any flatbed truck carrying air cargo within One mile (on local routes to be designated by the Commissioner) from any airport and off-airport facilities exceeding height restriction of 13'6" is not required to obtain a permit.
4. Combination vehicle - cab with trailer.
5. Single - Single truck unit.
6. Non-Divisible loads are loads that cannot be broken down.

# APPENDIX B

# NYCDOT Overdimensional Truck Permit Polices

# OVERDIMENSIONAL TRUCK PERMIT POLICIES

| Width | Length | Height | Weight | Time of Travel & Stipulation | Access Restrictions |
|---|---|---|---|---|---|
| **SURVEY REQUIREMENTS** | | | | | |
| >12' | >80' | >14' | >150,000lbs | | |
| **POLICE ESCORT REQUIREMENTS** | | | | | |
| >16' (2Lane H'Way) & 18"(MultiLane H'Way) | >140'/>200' | >16' | 200,000lbs | 140' on Two Lane & 200' on Multi Lane Highways | In addition to Police Escorts, Certified Escort; **is required. Also required when special conditions exist as deemed necessary by DOT** |
| **TIME OF TRAVEL** | | | | | |
| 8'1" to 10' | <100' | | | Mon-Thurs 10am-4pm(160) & Fri 10am-3pm(161) | Truck Routes |
| >10' | <100' | | | Mon-Thurs: 10pm-5:30am (162) Sat:12:01-5:30am-FriNite (163) Mon:12:01-5:30am-SunNite (164) | NO DAY MOVES, Except Interstates/Truck Routes |
| 10'1"-11'11" | <100 | | | Mon-Fri: 11am-2pm (166) | GW Bridge, ONLY Interstate on (I95,I678,I295,I495) No Local Streets |
| - | >100' | | | Mon-Thurs: 10pm-5:30am | NO DAY MOVES/Truck Routes |
| | | | | **No moves allowed on Friday before Midnight** | |
| **STIPULATIONS** | | | | | |
| **Width** | **Length** | **Height** | **Weight** | **Stipulation** | **Description** |
| | | | | | All oversize vehicles must have front and rear Red warning flags at least 24" square |
| >10' | | | | 167 | Two flashing yellow lights at each end |
| >11' | OR>65' | | | 168 | When traveling Non-Interstate, must have a rear escort vehicle + the sign. All others, (on Interstate) must have "over-size Load" sign. |
| >14' | | | | 169, 171 | A lead escort and a rear escort vehicle, equipped With "Over-size Load"sign. Note 169 excludes 168 if it applies. |
| | >55' | | | 170 | Clearance lights at 20' intervals along the sides. When traveling at night only. |
| >14' | OR>80' | OR>13'6" | | 171 | Warning sign and two steady yellow lights attached. To the rear of the load. |
| | >100 | OR>15' | | 16+Height Pole | Manually typed: 169+Proper height pole attached & rear escort vehicle, both with "Over-sized Load signs". |

STIPULATIONS: **(160)** Oversize Day Travel 10 AM to 4 PM, **(161)** Oversize Day Travel 10 AM to 3 PM FRIDAYS, **(166)** Oversize Day Travel 11 AM to 2 PM **(Interstate Only) (162)** Oversize Night Travel 10 PM to 5:30 AM, **(163)** Oversize Night Travel 12:01 AM to 5:30 AM **SATURDAYS**, **(164)** Oversize Night Travel 12:01 AM to 5:30 AM, **MONDAYS**

**General Guidelines**

**1.** Over-dimensional permits will not be issued for divisible loads.

**2.** Previously established NYC Dept. of Transportation Truck Routes will utilized.

**3.** Application cut-off time is 4:00 PM for same day of travel.

**4.** Applications must include a requested route. DOT will either approve the route request/suggest an alternative route.

**5.** Over-dimensional travel is not permitted from 10:00 PM on a business day before and until 10:00 PM on the business day following major holidays.

Major holidays observed by the City of New York are: New Years Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Thanksgiving Day and Christmas Day

Overdimensional vehicles that exceed the dimensions in above chart, require additional procedures and stipulations for movement. Please contact NYCDOT Bridges-Truck Unit at 212-341-3726

STIPULATIONS: **(160)** Oversize Day Travel 10 AM-4 PM, **(161)** Oversize Day Travel 10 AM-3 PM-FRIDAYS **(166)** Oversize Day Travel 11 AM to 2 PM **(Interstate Only) (162)** Oversize Night Travel 10 PM to 5:30 AM, **(163)** Oversize Night Travel 12:01 AM to 5:30 AM **SATURDAYS, (164)** Oversize Night Travel 12:01 AM to 5:30 AM, **MONDAYS**

# APPENDIX C

## FHWA Vehicle Types

## FHWA Vehicle Types

The classification scheme is separated into categories depending on whether the vehicle carries passengers or commodities. Non-passenger vehicles are further subdivided by number of axles and number of units, including both power and trailer units. Note that the addition of a light trailer to a vehicle does not change the classification of the vehicle.

Automatic vehicle classifiers need an algorithm to interpret axle spacing information to correctly classify vehicles into these categories. The algorithm most commonly used is based on the "Scheme F" developed by Maine DOT in the mid-1980s. **The FHWA does not endorse "Scheme F" or any other classification algorithm.** Axle spacing characteristics for specific vehicle types are known to change from State to State. As a result, no single algorithm is best for all cases. It is up to each agency to develop, test, and refine an algorithm that meets its own needs.

**FHWA Vehicle Classes with Definitions**

1. ***Motorcycles*** (Optional) -- All two or three-wheeled motorized vehicles. Typical vehicles in this category have saddle type seats and are steered by handlebars rather than steering wheels. This category includes motorcycles, motor scooters, mopeds, motor-powered bicycles, and three-wheel motorcycles. This vehicle type may be reported at the option of the State.
2. ***Passenger Cars*** -- All sedans, coupes, and station wagons manufactured primarily for the purpose of carrying passengers and including those passenger cars pulling recreational or other light trailers.
3. ***Other Two-Axle, Four-Tire Single Unit Vehicles*** -- All two-axle, four-tire, vehicles, other than passenger cars. Included in this classification are pickups, panels, vans, and other vehicles such as campers, motor homes, ambulances, hearses, carryalls, and minibuses. Other two-axle, four-tire single-unit vehicles pulling recreational or other light trailers are included in this classification. *Because automatic vehicle classifiers have difficulty distinguishing class 3 from class 2, these two classes may be combined into class 2.*
4. ***Buses*** -- All vehicles manufactured as traditional passenger-carrying buses with two axles and six tires or three or more axles. This category includes only traditional buses (including school buses) functioning as passenger-carrying vehicles. Modified buses should be considered to be a truck and should be appropriately classified.

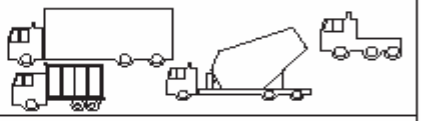
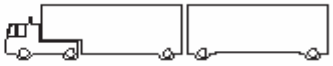
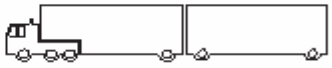
   **NOTE:** In reporting information on trucks the following criteria should be used:

   a. Truck tractor units traveling without a trailer will be considered single-unit trucks.
   b. A truck tractor unit pulling other such units in a "saddle mount" configuration will be considered one single-unit truck and will be defined only by the axles on the pulling unit.
   c. Vehicles are defined by the number of axles in contact with the road. Therefore, "floating" axles are counted only when in the down position.
   d. The term "trailer" includes both semi- and full trailers.

5. ***Two-Axle, Six-Tire, Single-Unit Trucks*** -- All vehicles on a single frame including trucks, camping and recreational vehicles, motor homes, etc., with two axles and dual rear wheels.
6. ***Three-Axle Single-Unit Trucks*** -- All vehicles on a single frame including trucks, camping and recreational vehicles, motor homes, etc., with three axles.
7. ***Four or More Axle Single-Unit Trucks*** -- All trucks on a single frame with four or more axles.
8. ***Four or Fewer Axle Single-Trailer Trucks*** -- All vehicles with four or fewer axles consisting of two units, one of which is a tractor or straight truck power unit.
9. ***Five-Axle Single-Trailer Trucks*** -- All five-axle vehicles consisting of two units, one of which is a tractor or straight truck power unit.
10. ***Six or More Axle Single-Trailer Trucks*** -- All vehicles with six or more axles consisting of two units, one of which is a tractor or straight truck power unit.

11. ***Five or fewer Axle Multi-Trailer Trucks*** -- All vehicles with five or fewer axles consisting of three or more units, one of which is a tractor or straight truck power unit.
12. ***Six-Axle Multi-Trailer Trucks*** -- All six-axle vehicles consisting of three or more units, one of which is a tractor or straight truck power unit.
13. ***Seven or More Axle Multi-Trailer Trucks*** -- All vehicles with seven or more axles consisting of three or more units, one of which is a tractor or straight truck power unit.

**FHWA Vehicle Classification Scheme**

| Class No. | Vehicle Description | Picture |
|---|---|---|
| 1 | Motorcycle |  |
| 2 | Passenger Cars |  |
| 3 | Other two-axle, four-tire, single-unit vehicles |  |
| 4 | Buses |  |
| 5 | Two-axle, six-tire, single-unit trucks |  |
| 6 | Three-axle, single-unit trucks |  |
| 7 | Four-or-more-axle, single-unit trucks |  |
| 8 | Four-or-less-axle, single-trailer trucks |  |
| 9 | Five-axle, single-trailer trucks |  |
| 10 | Six-or-more-axle, single-trailer trucks |  |
| 11 | Five-or-fewer-axle, multi-trailer trucks |  |
| 12 | Six-axle, multi-trailer trucks |  |
| 13 | Seven-or-more-axle, multi-trailer trucks |  |

# APPENDIX D

## Current truck length width, and weight limitations established by the Federal Motor Carrier Safety Administration (FMCSA)

## Current truck length width, and weight limitations established by the Federal Motor Carrier Safety Administration (FMCSA): [83]

### Length

No State shall impose a length limitation of less than 28' on any semi-trailer or 28½ feet if the semi-trailer was in legal operation on December 1, 1982, operating in a truck, tractor, semi-trailer or semi-trailer combination.

No State shall impose an overall length limitation on a truck, tractor, semi-trailer or semi-trailer combination when each semi-trailer length is 28', or 28½', if grandfathered.

No State shall impose a length limit on a maxi cube vehicle of less than 34' on either cargo box, excluding drawbar or hitching device; 60' on the distance from the front of the first to the rear of the second cargo box, including the space between the cargo boxes; or 65' on the overall length of the combination, including the space between cargo boxes.

No State shall impose a limitation of less than 46' on the distance from the kingpin to the center of the rear axle on trailers or semi-trailers used exclusively or primarily to transport vehicles in connection with motor sports competition events.

No State shall impose a length limitation of less than 48' on a semi-trailer operating in a truck, tractor or semi-trailer combination.

No State shall impose a length limitation of less than 28' on any semi-trailer or trailer operating in a truck, tractor, semi-trailer or trailer combination.

No State shall impose an overall length limitation on commercial vehicles operating in truck, tractor, semi-trailer, or truck, tractor, semi-trailer or trailer combinations.

No State shall prohibit commercial motor vehicles operating in truck, tractor, semi-trailer or trailer combinations.

No State shall prohibit the operation of semi-trailers or trailers that are 28½' long when operating in a truck, tractor, semi-trailer or trailer combination if such a trailer or semi-trailer was in actual and lawful operation on December 1, 1982, and such combination had an overall length not exceeding 65'.

No State shall impose an overall length limitation of less than 65' on traditional automobile transporters, or less than 75' on stinger or steered automobile transporters.

No State shall impose an overall length limit of less than 75' on drive or away saddle mount vehicle transporter combinations and drive away saddle mount with full mount vehicle transporter combinations.

No State shall impose an overall length limitation of less than 65' on traditional boat transporters (fifth wheel located on tractor frame over rear axle(s), including low boys, or less than 75' on stinger or steered boat transporters. In addition, no State shall impose an overall length

[83] Source: http://www.fmcsa.dot.gov/rulesregs/fmcsr/regs/658.htm. July 1, 2004.

limitation of less than 65' on truck or trailer boat transporters.

**Width**

No State shall impose a width limitation of more or less than 102" (8½') on a vehicle operating on the National Network.

A State may grant special use permits to motor vehicles, including manufactured housing that exceeds 102".

**Weight**

The maximum gross vehicle weight shall be 80,000 pounds, except where lower gross vehicle weight is dictated by the bridge formula.

The maximum gross weight upon any one axle, including any one axle of a group of axles, of a vehicle is 20,000 pounds.

The maximum gross weight on tandem axles is 34,000 pounds.

No vehicle or combination of vehicles shall be moved or operated on any Interstate highway when the gross weight on two or more consecutive axles exceeds the limitations prescribed by the Bridge Gross Weight Formula.

States may not enforce on the Interstate System vehicle weight limits of less than 20,000 pounds on a single axle, 34,000 pounds on a tandem axle, or the weights derived from the Bridge Formula, up to a maximum of 80,000 pounds, including all enforcement tolerances.

States may not limit tire loads to less than 500 pounds per inch of tire or tread width, except that such limits may not be applied to tires on the steering axle.

States may not limit steering axle weights to less than 20,000 pounds or the axle rating established by the manufacturer, whichever is lower.

States may issue special permits without regard to the axle, gross, or Federal Bridge Formula requirements for non-divisible vehicles or loads.

The table below provides FMCSA combination vehicle width and gross weight requirements for New York State.

**Combination Vehicle Restrictions (FMCSA)**

| | |
|---|---|
| **Width** | Truck tractor and 2 trailing units (length of cargo carrying units): 102' |
| **Weight** | 143,000 pounds |

http://www.fmcsa.dot.gov/rulesregs/fmcsr/regs/658appnc16.htm

# APPENDIX E

## New York State Vehicle and Traffic Law
## Section 385, Article 10

New York State Vehicle and Traffic Law
Section 385, Article 10

§ 385. Dimensions and weights of vehicles. No person shall operate or move, or cause or knowingly permit to be operated or moved on any highway or bridge thereon, in any county not wholly included within a city, any vehicle or combination of vehicles of a size or weight exceeding the limitations provided for in this section. Except as otherwise specifically provided in subdivision fifteen of this section, no person shall operate or move, or cause or knowingly permit to be operated or moved on any highway or bridge thereon, in any city not wholly included within one county, any vehicle or combination of vehicles of a size or weight exceeding the limitations provided for in the rules and regulations of the city department of transportation of such city adopted pursuant to section sixteen hundred forty-two of this chapter.

1.

a.

i. The width of a vehicle, inclusive of load, shall be not more than ninety-six inches plus safety devices, except that the maximum width of a vehicle, inclusive of load, shall be one hundred two inches, plus safety devices, on any qualifying or access highway. Except in a city not wholly included within one county, the maximum width of a vehicle, inclusive of load shall not be more than one hundred two inches plus safety devices on any other highway with traffic lanes designed to be a width of ten feet or more.

ii. If the legislative body of a county not wholly contained within a city determines that any specific segment of the state highway system is not capable of safely accommodating motor vehicles with a width of one hundred two inches, plus safety devices, such body may notify the commissioner of transportation of such determination and request that the commissioner designate such segment as one where the width of motor vehicles may not exceed ninety-six inches, plus safety devices.

Before making such notification, such county legislative body shall consult with units of local government within the county in which the specific segment of such system is located, as well as the county legislative body of any county adjacent to the requesting county that might be directly affected by such exemption. As part of such consultations, consideration shall be given to any potential alternative route that:

A. can safely accommodate motor vehicles having the widths set forth in this paragraph; and
B. serves the area in which such segment is located. The county legislative body shall transmit with such notification specific evidence of safety problems that supports such determination and the results of consultations regarding any alternative route.

If the commissioner of transportation determines, upon request by a county legislative body or on the commissioner's own initiative, that any segment of the state highway system is not capable of safely

accommodating motor vehicles having the widths set forth in this paragraph, the commissioner shall exempt such segment from the provisions of this paragraph.

b. The provisions of paragraph (a) of this subdivision shall not apply to vehicles and implements or combinations thereof, not over twelve feet in width and used solely for farm purposes, except upon any highway at any time on which operation is prohibited by order of the department of transportation.
c. The provisions of paragraph (a) of this subdivision shall not apply to vehicles and implements or combinations thereof, between twelve and up to seventeen feet in width, used solely for farm purposes when the following requirements are met:
    i. the vehicle and implement or combination thereof is operated during the period from one-half hour before sunrise to one-half hour after sunset;
    ii. red or orange fluorescent flags not smaller than eighteen inches square, and reflectors are placed on the extreme corners of the load;
    iii. two flashing amber lights in compliance with regulations prescribed by the commissioner of transportation are attached to the rear of the load or, if the vehicle hauling such implement is equipped with hazard lights which are visible from the rear of the load, such lights are flashing; and
    iv. if the vehicle or load extends beyond the center line of a highway or if the vehicle is being operated during any time when, due to rain, sleet, snow, hail, fog, insufficient light, or for any other reason, visibility for a distance of one thousand feet ahead is not clear, the vehicle is preceded by an escort vehicle which is equipped with a warning sign and flashing lights in compliance with regulations prescribed by the commissioner of transportation.
d. The provisions of paragraph (a) of this subdivision shall not apply to vehicles and implements or combinations thereof, not over thirteen feet in width and designed and intended for use solely for farm purposes when owned or in the possession of a dealer in farm implements and equipment, during the same period and under the same conditions and restrictions as set forth in paragraph (b) of this subdivision; nor shall paragraph (a) of this subdivision apply to the transportation of such vehicles, implements and combinations thereof as a load on another vehicle, such vehicle and load not to exceed thirteen feet in width, during the same period and under the same conditions and restrictions as set forth in paragraph (b) of this subdivision.
e. The provisions of paragraph (a) of this subdivision shall not apply to omnibuses or buses used solely for the transportation of children to and from school, but the width of such omnibuses shall not exceed ninety-eight inches.
f. Notwithstanding the provisions of paragraph (a) of this subdivision, the maximum width for omnibuses or buses having a carrying capacity of more than seven passengers shall not exceed one hundred two inches, provided, however, that when omnibuses or buses are operated wholly within a city, such city may, by local law or ordinance but subject to paragraph (h) of this subdivision, limit the width of omnibuses or buses to not more than ninety-eight inches.
g. Notwithstanding the provisions of paragraph (a) of this subdivision, racks for carrying hay, straw or unthreshed grain may have a width of ten feet at the top of the rack. In no case shall the width at the base of the rack exceed one

hundred two inches, nor shall the width of a rack exceed one hundred two inches at any portion thereof while on any qualifying highway.

h. Notwithstanding the provisions of paragraph (a) of this subdivision, a house coach used for non-commercial purposes may exceed the maximum width applicable on the highway upon which such house coach is traveling if such excess width is wholly attributable to an awning and its support hardware that is no less than seven and one-half feet off the ground and extends no more than six inches beyond the body of the vehicle on the passenger side and four inches beyond the body of the vehicle on the driver's side. A fifth wheel trailer designed to provide temporary living quarters for recreational, camping, or travel use not to exceed four hundred square feet in the set-up mode and used for non-commercial purposes may exceed the maximum width applicable on the highway upon which such fifth wheel trailer is traveling if such excess width is wholly attributable to an awning and its support hardware that is no less than seven and one-half feet off the ground and extends no more than six inches beyond the body of the vehicle on the passenger side. This provision shall not apply to any city not wholly included within one county except such house coaches and fifth wheel trailers used for non-commercial purposes may be operated on that portion of Interstate ninety-five which connects Interstate two hundred eighty-seven with Interstate two hundred ninety-five, that portion of Interstate two hundred ninety-five which connects Interstate ninety-five with Interstate four hundred ninety-five and that portion of Interstate four hundred ninety-five between Interstate ninety-five and the Nassau-Queens county line.

i. The commissioner of transportation may promulgate such rules and regulations as shall be necessary or desirable to effectuate the provisions of this subdivision.

2. The height of a vehicle from under side of tire to top of vehicle, inclusive of load, shall be not more than thirteen and one-half feet. Any damage to highways, bridges or highway structures resulting from the use of a vehicle exceeding thirteen feet in height where such excess height is the proximate cause of the accident shall be compensated for by the owner and operator of such vehicle.

3.

a. The length of a single vehicle, inclusive of load and bumpers, shall be not more than forty feet unless otherwise provided in this subdivision.

b. The length of a semitrailer or trailer shall not exceed forty-eight feet provided, however, that the length of any trailer or semitrailer being operated in combination with another trailer or semitrailer shall not exceed twenty-eight and one-half feet.

c. The length of buses having a carrying capacity of more than seven passengers shall not exceed forty-five feet, except that the length of articulated buses shall not exceed sixty-two feet. A house coach shall not exceed forty-five feet in length, provided however, that if a house coach exceeds forty feet in length, its wall-to-wall turning diameter shall not exceed ninety feet three inches and moreover, such house coach shall have permanently affixed to its body on the front passenger side door jamb, a data-plate on which the house coach manufacturer indicates the vehicle identification number and wall-to-wall turning diameter and attests to the fact that the wall-to-wall turning diameter is calculated in accordance with the Society of Automotive Engineers J-695 Standard as such standard existed on June first, two thousand three, regarding turning capability. In the event such a house coach exceeds either twenty-six thousand pounds gross vehicle weight rating, is greater than forty feet in length

or exceeds both, the operator of such house coach must have a driver's license with a personal use vehicle endorsement as set forth in subparagraph (vii) of paragraph (b) of subdivision two of section five hundred one of the this chapter. This provision shall not apply to any city not wholly included within one county except such house coaches and fifth wheel trailers used for non-commercial purposes may be operated on that portion of Interstate ninety-five which connects Interstate two hundred eighty-seven with Interstate two hundred ninety-five, that portion of Interstate two hundred ninety-five which connects Interstate ninety-five with Interstate four hundred ninety-five and that portion of Interstate four hundred ninety-five between Interstate ninety-five and the Nassau-Queens county line.

d. The provisions of this subdivision shall not apply to fire vehicles.

e. Except in any city not wholly included within one county, any semitrailer with a length in excess of forty-eight feet, but not exceeding fifty-three feet, may be operated on any qualifying highway or specifically designated access highway if the distance between the kingpin of the semitrailer and the centerline of the rear axle does not exceed forty-three feet and if the semitrailer is equipped with a rear-end protective device of substantial construction consisting of a continuous lateral beam extending to within four inches of the lateral extremities of the semitrailer and located not more than twenty-two inches from the surface as measured with the vehicle empty and on a level surface. In addition, such vehicles may be operated on that portion of Interstate ninety-five which connects Interstate two hundred eighty-seven with Interstate two hundred ninety-five, that portion of Interstate two hundred ninety-five which connects Interstate ninety-five with Interstate four hundred ninety-five and that portion of Interstate four hundred ninety-five between Interstate ninety-five and the Nassau-Queens county line.

f. The length of any center panel of an altered livery shall not exceed one hundred inches unless the owner of such vehicle can demonstrate that the livery conforms to all applicable Federal and state motor vehicle safety standards at the time of registration in accordance with section four hundred one of this chapter.

g. The commissioner of motor vehicles in consultation with the commissioner of transportation may promulgate such rules and regulations as shall be necessary or desirable to effectuate the provisions of this subdivision.

4.

a. The total length of a combination of vehicles, inclusive of load and bumpers, shall not be more than sixty-five feet.

b. The provisions of paragraph (a) of this subdivision shall not apply to:

1. A combination of vehicles being operated on any qualifying highway or access highway;
2. Vehicles of a corporation which is subject to the jurisdiction of the Interstate commerce commission, the public service commission or other regulatory body and which are used in the construction, reconstruction, repair or maintenance of its property or facilities, provided that any such vehicle complies with the safety requirements of the laws and regulations of the United States and of this state pertaining to overlength vehicles;
3. Vehicles hauling poles, girders, columns, or other similar objects of great length provided that any such vehicle complies with the safety

requirements of the laws and regulations of the United States and of this state pertaining to such overlength vehicles;

4. Fire vehicles;
5. A vehicle or combination of vehicles which is disabled and unable to proceed under its own power and is being towed for a distance not in excess of ten miles for the purpose of repairs or removal from the highway; and
6. Stinger-steered automobile transporters or stinger-steered boat transporters, while operating on qualifying and access highways. Such vehicles shall not, however, exceed seventy-five feet exclusive of an overhang of not more than three feet on the front and four feet on the rear of the vehicle.

c. Notwithstanding the provisions of paragraph (a) of this subdivision, an overhang of not more than three feet on the front and four feet on the rear of an automobile transporter or stinger-steered automobile transporter or a boat transporter or stinger-steered boat transporter shall be permitted.

5. In determining the number of wheels and axles on any vehicle or combination of vehicles within the meaning of this section, only two wheels shall be counted for each axle, and axles which are less than forty-six inches apart, from center to center, shall be counted as one axle. However, in the case of multiple tires or multiple wheels, the sum of the widths of all the tires on a wheel or combination of wheels shall be taken in determining tire width.
6. The weight per inch width of tire on any one wheel of a single vehicle or a combination of vehicles equipped with pneumatic tires, when loaded, shall be not more than eight hundred pounds.
7. The weight on any one wheel of a single vehicle or a combination of vehicles, equipped with pneumatic tires, when loaded, shall be not more than eleven thousand two hundred pounds.
8. The weight on any one axle of a single vehicle or a combination of vehicles, equipped with pneumatic tires, when loaded, shall be not more than twenty-two thousand four hundred pounds.
9. The weight on any two consecutive axles of a single vehicle or a combination of vehicles, equipped with pneumatic tires, when loaded, and when such axles are spaced less than eight feet from center to center, shall be not more than thirty-six thousand pounds, except where axles are spaced eight feet or greater, but less than ten feet, the weight on those two axles shall not exceed that permitted by paragraph (b) of subdivision ten of this section and, in addition, shall not exceed forty thousand pounds. Axles to be counted as provided in subdivision five of this section.
10. A single vehicle or a combination of vehicles having three axles or more and equipped with pneumatic tires, when loaded, may have a total weight on all axles not to exceed thirty-four thousand pounds, plus one thousand pounds for each foot and major fraction of a foot of the distance from the center of the foremost axle to the center of the rearmost axle. Axles to be counted as provided in subdivision five of this section. In no case, however, shall the total weight exceed eighty thousand pounds. For any vehicle or combination of vehicles having a total gross weight less than seventy-one thousand pounds, the higher of the following shall apply:
    a. the total weight on all axles shall not exceed thirty-four thousand pounds plus one thousand pounds for each foot and major fraction of a foot of the distance from the center of the foremost axle to the center of the rearmost axle, or
    b. the overall gross weight on a group of two or more consecutive axles shall not exceed the weight produced by application of the following formula:

W = 500 ((LxN)/(N-1) + (12xN)+36)

where W equals overall gross weight on any group of two or more consecutive axles to the nearest five hundred pounds, L equals distance in feet from the center of the foremost axle to the center of the rearmost axle of any group of two or more consecutive axles, and N equals number of axles in group under consideration, except that two consecutive sets of tandem axles may carry a gross load of thirty-four thousand pounds each providing the overall distance between the first and last axles of such consecutive sets of tandem axles is thirty-six feet or more.

11. For any vehicle or combination of vehicles having a total gross weight of seventy-one thousand pounds or greater, paragraph (b) shall apply to determine maximum gross weight which is permitted hereunder.
12. A vehicle or combination of vehicles equipped with any solid rubber tires shall not have weights more than eighty per centum of those permitted in this section for pneumatic tires. Notwithstanding the provisions of this section, vehicles equipped with solid rubber tires and registered in this state prior to January first, nineteen hundred thirty-two shall be permitted to operate until January first, nineteen hundred thirty-three under tire and axle loadings prescribed by chapter four hundred ninety-eight of the laws of nineteen hundred thirty.
13. Motor vehicles or vehicles drawn by motor vehicles when equipped with metal tires shall not have weights more than forty percent of those permitted in this section for pneumatic tires.
14. For the purpose of this section, the width of pneumatic tires shall be ascertained by measuring the greatest width of the tire casing when tire is inflated. The width of solid rubber tires shall be ascertained by measuring the width of the tire base channel or between the flanges of the metal rim, provided that no vehicle equipped with solid rubber tires shall be operated upon a public highway, which has at any point less than one inch of rubber above the top or beyond the flange or rim. The width of metal tires shall be ascertained by measuring the width of contact of the tire with the road surface.
15. No person shall operate or move a vehicle or a combination of vehicles over, on or through any bridge or structure on any highway if the weight of such vehicle, or combination of vehicles, and load, is greater than the posted capacity of the structure or exceeds the height of the posted clearance as shown by an official sign.
16. Except where inconsistent with Federal law, rules and regulations:
    a. The commissioner of transportation is hereby authorized to continue to grant permits, and to charge fees therefore, for the operation or movement of a vehicle or combination of vehicles having weights or dimensions which exceed the limitations provided for in this section upon any highway under his or her jurisdiction except in any city not wholly included within one county. Such permits shall be issued in accordance with the terms and conditions contained in rules and regulations governing special hauling permits which have been or shall be promulgated by the commissioner of transportation and which may include, but not be limited to, a requirement that a vehicle or combination of vehicles being issued a permit shall be accompanied by one or more escort vehicles which is being operated by an individual having a valid escort certificate issued by the commissioner. The commissioner of transportation is authorized to promulgate rules and regulations governing the operation, use and equipment of escort vehicles and the duties and responsibilities of the

operator of an escort vehicle. Any finding by the commissioner of transportation that an individual has violated such rules and regulations shall be grounds for the cancellation of an individual's escort certificate and a penalty not to exceed five hundred dollars per occurrence for the first violation and not to exceed one thousand dollars per occurrence for each subsequent violation. Prior to issuing such a finding, the commissioner of transportation shall afford an individual the right to a hearing pursuant to section one hundred forty-five of the transportation law.

Such rules and regulations shall take into consideration, but shall not be limited to, the safety of the traveling public and the protection of the highways and the environment. Such rules and regulations shall also contain a schedule of fees to be charged for the issuance of such permits which fees shall cover, but shall not be limited to, the costs to the department of transportation for the administration of the permit program, and shall permit the commissioner of transportation to levy a surcharge of up to twenty dollars for the issuance and distribution of special hauling permits at regional offices of the department of transportation. The annual vehicle fee for a permit issued pursuant to subparagraphs (i), (ii), and (iii) of paragraph (f) of this subdivision shall be three hundred sixty dollars for vehicles with less than five axles and seven hundred fifty dollars for vehicles with five or more axles. The annual vehicle fee for a permit issued pursuant to subparagraphs (iv), (v), and (vi) of paragraph (f) of this subdivision shall be four hundred eighty dollars for vehicles with less than five axles and one thousand dollars for vehicles with five or more axles. Additionally, the commissioner shall establish a fee schedule for the permitting of extra non-power combination units that may not exceed twenty-five dollars per vehicle and may offer discounts for multi-trailer registrations. Such fees shall not be charged to municipalities in this state. If the permit has routing requirements, such rules and regulations shall provide that if the routing anticipates the use of highways not under the jurisdiction of the commissioner of transportation, then he or she shall immediately notify the municipality or municipalities, having jurisdiction over such highway that an application for a permit has been received and request comment thereon. Said municipality or municipalities shall not have less than fifteen days to comment. Such rules and regulations shall also contain any other requirements deemed necessary by the commissioner of transportation.

b. Upon application in writing and good cause being shown, the department of transportation may issue a permit pursuant to this subdivision to operate or move a vehicle or a combination of vehicles, the weights or the dimensions of which exceed the limitations provided for in this section upon any highway under its jurisdiction except in any city not wholly included within one county. For any other public highway in any county not wholly included within a city which is not on the state system of highways the authority having jurisdiction over same may issue a similar permit, provided that the fee charged for such permit shall not exceed ten dollars.
c. Upon application in writing and good cause being shown, the city department of transportation of a city not wholly included within one county may issue a permit pursuant to this subdivision to operate or move a vehicle or a combination of vehicles the weights or the dimensions of which exceed the limitations provided for in the rules and regulations of the city department of

transportation of such city upon all highways within such city including highways which are on the state system of highways. The rules and regulations of such city department of transportation shall contain a schedule of fees to be charged for the issuance of such permits which fees shall cover, but shall not be limited to, the costs to the city for the administration of the permit program. Such rules and regulations shall also contain any other requirements deemed necessary by the city commissioner of transportation.

d. Except during storms, floods, fires or other public emergencies, no such permit may be issued to include a towing operation involving more than two vehicles except three vehicle combinations consisting of a tractor, semitrailer and trailer or a tractor and two trailers within legal weight and width limits proceeding to or from any qualifying highway or access highway. Every such permit may designate the route to be traversed and contain any other restrictions or conditions deemed necessary by the issuing authority. Every such permit shall be carried on the vehicle to which it refers and shall be open to the inspection of any peace officer, acting pursuant to his special duties, or police officer, or any other officer or employee authorized to enforce this section. All permits issued shall be revocable by the authority issuing them at the discretion of the authority without a hearing or the necessity of showing cause. Except in a city not wholly included within one county and except for a vehicle having a maximum gross weight not exceeding eighty thousand pounds without regard to any axle weight limitation set forth herein or the maximum gross weight established by the formula commonly referred to as the bridge formula as set forth in subdivision ten hereof and except for state or municipally-owned single vehicles engaged in snow and ice control operations, or designed or fitted for snow and ice control operations while engaged in other public works operations on public highways which do not exceed the weight limits contained in subdivision seventeen-a hereof, no permit shall be issued to allow operation or movement of any vehicle or combination of vehicles whose weight exceeds the limitations otherwise prescribed in this section other than an annual permit issued pursuant to paragraph (f) of this subdivision except upon a finding by the department of transportation or the appropriate authority, as the case may be, that the load proposed is of one piece or item or otherwise cannot be separated into units of less weight. Bulk milk may be considered one piece or item.

e. The department of transportation or the issuing authority, as the case may be, shall establish criteria by rule or regulation under which any vehicle, combination of vehicles, or specified cargoes in specified circumstances or specified sites, routing or projects may be considered one piece or item for the purpose of a permit under this subdivision.

f. The department of transportation, or other issuing authority, may issue an annual permit for a vehicle designed and constructed to carry loads that are not of one piece or item, which is registered in this state. Motor carriers having apportioned vehicles registered under the international registration plan must either have a currently valid permit at the time this provision becomes effective or shall have designated New York as its base state or one of the eligible jurisdictions of operation under the international registration plan in order to be eligible to receive a permit issued pursuant to subparagraph (i) or (ii) of this paragraph.

A divisible load permit may only be transferred to a replacement vehicle by the same registrant or transferred with the permitted vehicle as part of the sale or transfer of the permit holder's business.

If a permit holder operates a vehicle or combination of vehicles in violation of any posted weight restriction, the permit issued to such vehicle or combination of vehicles shall be deemed void as of the next day and shall not be reissued for a period of twelve calendar months.

Until June thirtieth, nineteen hundred ninety-four, no more than sixteen thousand power units shall be issued annual permits by the department for any twelve-month period in accordance with this paragraph. After June thirtieth, nineteen hundred ninety-four, no more than sixteen thousand five hundred power units shall be issued annual permits by the department for any twelve-month period. After December thirty-first, nineteen hundred ninety-five, no more than seventeen thousand power units shall be issued annual permits by the department for any twelve-month period.

Whenever permit application requests exceed permit availability, the department shall renew annual permits that have been expired for less than four years which meet program requirements, and then shall issue permit applicants having less than three divisible load permits such additional permits as the applicant may request, providing that the total of existing and new permits does not exceed three. Remaining permits shall be allocated by lottery in accordance with procedures established by the commissioner in rules and regulations.

The department of transportation may issue a seasonal agricultural permit in accordance with subparagraphs (i), (ii) and (iii) of this paragraph that will be valid for four consecutive months with a fee equal to one-half the annual permit fees established under this subdivision.

For a vehicle issued a permit in accordance with subparagraphs (iii), (iv), (v) and (vi) of this paragraph, such a vehicle must have been registered in this state prior to January first, nineteen hundred eighty-six or be a vehicle or combination of vehicles which replace such type of vehicle which was registered in this state prior to such date provided that the manufacturer's recommended maximum gross weight of the replacement vehicle or combination of vehicles does not exceed the weight for which a permit may be issued and the maximum load to be carried on the replacement vehicle or combination of vehicles does not exceed the maximum load which could have been carried on the vehicle being replaced or the registered weight of such vehicle, whichever is lower, in accordance with the following subparagraphs:

. A permit may be issued for a vehicle having at least three axles and a wheelbase not less than sixteen feet and for a vehicle with a trailer not exceeding forty-eight feet. The maximum gross weight of such a vehicle shall not exceed forty-two thousand five hundred pounds plus one thousand two hundred fifty pounds for each foot and major fraction of a foot of the distance from the center of the foremost axle to the center of

the rearmost axle, or one hundred two thousand pounds, whichever is more restrictive provided, however, that any four axle group weight shall not exceed sixty-two thousand pounds, any tridem axle group weight shall not exceed fifty-seven thousand pounds, any tandem axle weight does not exceed forty-seven thousand pounds and any single axle weight shall not exceed twenty-five thousand pounds. Any additional special authorizations contained in a currently valid annual permit shall cease upon the expiration of such current annual permit.

i. A permit may be issued subject to bridge restrictions for a vehicle or a combination of vehicles having at least six axles and a wheel base of at least thirty-six and one-half feet. The maximum gross weight of such vehicle or combination of vehicles shall not exceed one hundred seven thousand pounds and any tandem axle group weight shall not exceed fifty-eight thousand pounds and any tandem axle group weight shall not exceed forty-eight thousand pounds.

ii. A permit may be issued for a vehicle having two axles and a wheelbase not less than ten feet, with the maximum gross weight not in excess of one hundred twenty-five percent of the total weight limitation as set forth in subdivision ten of this section. Furthermore, until December thirty-first, nineteen hundred ninety-four, any single rear axle weight shall not exceed twenty-eight thousand pounds. After December thirty-first, nineteen hundred ninety-four, any axle weight shall not exceed twenty-seven thousand pounds.

iii. Within a city not wholly included within one county and the counties of Westchester, Rockland, Nassau, Suffolk, Putnam, Orange and Dutchess, a permit may be issued for a vehicle having at least three axles and a wheelbase not exceeding forty-four feet nor less than seventeen feet or for a vehicle with a trailer not exceeding forty feet.

Until December thirty-first, nineteen hundred ninety-four, a permit may only be issued for such a vehicle having a maximum gross weight not exceeding eighty-two thousand pounds and any tandem axle group weight shall not exceed sixty-two thousand pounds.

After January first, nineteen hundred ninety-five, the operation of such a vehicle shall be further limited and a permit may only be issued for such a vehicle having a maximum gross weight not exceeding seventy-nine thousand pounds and any tandem axle group weight shall not exceed fifty-nine thousand pounds, and any tridem shall not exceed sixty-four thousand pounds.

A permit may be issued only until December thirty-first, nineteen hundred ninety-four for a vehicle having at least three axles and a wheelbase between fifteen and seventeen feet. The maximum gross weight of such a vehicle shall not exceed seventy-three thousand two hundred eighty pounds and any tandem axle group weight shall not exceed fifty-four thousand pounds.

iv. Within a city not wholly included within one county and the counties of Westchester, Rockland, Nassau, Suffolk, Putnam, Orange or Dutchess,

a permit may be issued only until December thirty-first, nineteen hundred ninety-nine for a vehicle or combination of vehicles that has been permitted within the past four years having five axles and a wheelbase of at least thirty-six and one-half feet. The maximum gross weight of such a vehicle or combination of vehicles shall not exceed one hundred five thousand pounds and any tandem axle group weight shall not exceed fifty-one thousand pounds.

Within a city not wholly included within one county and the counties of Westchester, Rockland, Nassau, Suffolk, Putnam, Orange and Dutchess, a permit may be issued for a vehicle or combination of vehicles having at least five axles and a wheelbase of at least thirty feet. The maximum gross weight of such vehicle or combination of vehicles shall not exceed ninety-three thousand pounds and any tridem axle group weight shall not exceed fifty-seven thousand pounds and any tandem axle group weight shall not exceed forty-five thousand pounds.

v. Within a city not wholly included within one county and the counties of Westchester, Rockland, Nassau, Suffolk, Putnam, Orange and Dutchess, a permit may be issued for a vehicle or combination of vehicles having at least five axles or more and a wheelbase of at least thirty-six and one-half feet, provided such permit contains routing restrictions.

Until December thirty-first, nineteen hundred ninety-four, the maximum gross weight of a vehicle or combination of vehicles permitted under this subparagraph shall not exceed one hundred twenty thousand pounds and any tandem or tridem axle group weight shall not exceed sixty-nine thousand pounds, provided, however, that any replacement vehicle or combination of vehicles permitted after the effective date of this subparagraph shall have at least six axles, any tandem axle group shall not exceed fifty thousand pounds and any tridem axle group shall not exceed sixty-nine thousand pounds.

After December thirty-first, nineteen hundred ninety-four, the tridem axle group weight of any vehicle or combination of vehicles issued a permit under this subparagraph shall not exceed sixty-seven thousand pounds, any tandem axle group weight shall not exceed fifty thousand pounds and any single axle weight shall not exceed twenty-five thousand seven hundred fifty pounds.

After December thirty-first, nineteen hundred ninety-nine, all vehicles issued a permit under this subparagraph must have at least six axles.

From the date of enactment of this paragraph, permit applications under subparagraphs (i), (ii), (iii), (iv), (v) and (vi) hereof for vehicles registered in this state may be honored by the commissioner of transportation or other appropriate authority. The commissioner of transportation and other

appropriate authorities may confer and develop a system through rules and regulations to assure compliance herewith.

g. A sani-van vehicle, as defined in section one hundred forty-one-a of this chapter for which a permit has been issued pursuant to this subdivision is authorized to operate or move on all public highways or bridges within this state in accordance with any weight limitations specified in such permit.

h. In any action brought for damage or destruction of any highway or bridge including an action pursuant to section three hundred twenty of the highway law, there shall be a presumption that the operation of a vehicle or combination of vehicles in excess of the maximum weight limits established by this section or, in a city not wholly included within one county, in excess of the maximum weight limits prescribed by the rules and regulations of the city department of transportation of such city, is the proximate cause of such damage or destruction to the highway bridge or appurtenant structure, whether or not a permit to exceed such weight limits was issued by the appropriate authority.

. All moneys collected by the commissioner of transportation pursuant to this subdivision shall be deposited by the comptroller into the special obligation reserve and payment account of the dedicated highway and bridge trust fund established pursuant to section eighty-nine-b of the state finance law.

15-a. In furtherance of the authority to issue permits pursuant to subdivision fifteen of this section, the department of transportation and the New York state thruway authority are authorized to enter into a cooperative agreement relative to permits to operate or move vehicles or combinations of vehicles the weights or the dimensions of which exceed the limitations otherwise provided for in this section along the thruway system and state highway system, routes 5 and 49 between the relocated thruway interchanges, including the Edic road interchange, and River road in the vicinity of Edic road in the vicinity of the city of Utica. Permits issued hereunder may be of a joint or reciprocal type for operations or movements on such highway systems and shall not be limited to loads proposed as one piece or item or otherwise cannot be separated into units of less weight.

17. The provisions of this section relating to the maximum dimension and weight limitations of vehicles shall not be applicable to any vehicle or combination of vehicles proceeding to or from the New York state thruway while being operated at the following locations, provided, however, that the maximum dimensions and weight limitations of such a vehicle or combination of vehicles are in compliance with those applicable to the New York state thruway;

a. Within a radius of fifteen hundred feet of any New York state thruway toll booth at Fultonville, New York;

b. Within a radius of two thousand feet of any exit or entrance designated B-3 to the New York state thruway, Berkshire section, at New York state route twenty-two;

c. Over a route extending north and south on New York state route 332 between New York state thruway exit no. 44 and its intersection with Collett road, and east and west on Collett road between said intersection and no. 6070 Collett road, a distance of approximately .8 miles.

d. Within a radius of 1.2 miles from New York state thruway toll booth no. 56 on access road to be built between such toll booth no. 56 and the present eastern terminus of route 179 at South Park avenue, over route 179 and old Mile Strip road to the truck terminal entrance on old Mile Strip road at a point approximately two thousand four hundred thirty feet southeast of the intersection of old Mile Strip road and Route 5 as measured along old Mile Strip road, or across Lake Avenue at the northern end of the truck terminal;
e. Within a distance of 1.5 miles measured along that portion of the River Road, New York state touring route 266, also known as state highway 129, lying generally northerly of the South Grand Island Bridges, such distance to be measured from the point where the southernmost access road to New York state thruway station no. 17 intersects with said River Road;
f. Within a distance of two miles measured along New York state route 400, such distance to be measured from the point where said route 400 intersects with the New York state thruway, and .5 miles measured along New York state route 277, such distance to be measured in a northerly direction from the point where New York state route 277 intersects with New York state route 400;
g. Within a distance of .8 miles measured along Walden Avenue in the Town of Cheektowaga, such distance to be measured in a westerly direction from the point where said Walden Avenue intersects with the New York state thruway, .5 miles measured along said Walden Avenue, such distance to be measured in an easterly direction from the point where said Walden Avenue intersects with the New York state thruway, 1,640 feet measured along a roadway purchased by the Town of Cheektowaga from Sorrento Cheese, Inc., such distance to be measured in a southerly direction from the point where said roadway intersects with Walden Avenue, and .9 miles measured along New York state route 240, such distance to be measured in a southerly direction from the point where New York state route 240 intersects with said Walden Avenue;
h. Within a distance of .1 miles measured along Sheridan Drive, New York state route 324, such distance to be measured in an easterly direction from the point where said Sheridan Drive intersects with New York state thruway interchange N-15, and .4 miles measured along Kenmore Avenue, such distance to be measured in a southerly direction from the point where Sheridan Drive intersects with said Kenmore Avenue;
i. Within a distance of .8 miles measured along Dingens street in the city of Buffalo such distance to be measured in a westerly direction from the Ogden street exit of the Niagara section of the New York state thruway;
j. Within a distance of .25 miles along South street in the city of Buffalo between Hamburg street and Louisiana street;
k. Within a distance of .7 miles measured along Louisiana street in the city of Buffalo such distance to be measured in a southerly direction from the Louisiana street entrance of the Niagara section of the New York state thruway; and
l. Within a distance of 1700 feet measured along that portion of the River Road, New York state touring route 266, also known as state highway 129, lying generally southerly of the South Grand Island Bridges, such distance to be measured from the point where the southern most access road to New York state thruway station no. 17 intersects with said River Road; and
m. Within a distance of 0.6 miles extending north along New York state route 233 from a point where such route 233 intersects with the exit or entrance

designated number thirty-two of the New York state thruway at Westmoreland in Oneida county.

n. Within a route from the thruway toll booth at the New York state thruway exit 21-B and along the access road to route 9-W, and thence 1500 feet along route 9-W to be measured in a northerly direction from the point where such thruway access road intersects route 9-W.

o.

Within a distance of 0.8 miles from exit B-1 of the New York state thruway Berkshire Spur, such distance to be measured in a northerly direction from the point where state route 9 intersects the southern most access ramp leading to the New York state thruway.

Within a distance of 1.6 miles from the exit B-1 of the New York state thruway Berkshire Spur, with such distance being measured in a northerly direction from the point where state route 9 intersects the southern most access ramp leading to the New York state thruway, upon a determination by the commissioner of transportation that the vehicle or combination of vehicles could operate safely upon such route and that no applicable Federal law, regulation or other requirement prohibits the operation of such vehicle or combination of vehicles on such route.

p. Within a distance of .45 miles measured along James E. Casey Drive in the city of Buffalo such distance to be measured in a northerly direction from Dingens street.

q. Within approximately one mile of the thruway toll booth at the New York state thruway exit 23 in a northerly direction along Interstate route 787 to the first "Port of Albany" exit, and right on Church street south approximately one-half mile to the south end of the Mobil terminal facility and return from Church street entering Interstate route 787 in a southerly direction to interchange 23 of the New York state thruway.

r. On any route designated by the commissioner of transportation within a radius of six thousand six hundred feet of any exit or entrance designated interchange 26 of the New York state thruway, where the commissioner of transportation determines that the vehicle or combination of vehicles could operate safely along the designated route and that no applicable Federal law, regulation or other requirement prohibits the operation of such vehicle or combination of vehicles on such route.

18. -a. Except over any highway which is a part of a state Interstate route:

i. The following weight limits shall apply to any state or municipally owned single vehicle, equipped with pneumatic tires, engaged in snow and ice control operations on public highways, including the stockpiling of materials and abrasives therefor, with a plow, leveling wing, or material hopper installed:

. The total weight on any one wheel, shall not be more than sixteen thousand pounds.

a. The total weight on a single axle, shall not be more than thirty-two thousand pounds.

b. The total weight on two consecutive axles, when such axles are spaced less than ten feet from center to center, shall not be more than forty-two thousand pounds.

c. The total weight on all axles of a two axle vehicle shall not be more than fifty-two thousand pounds; the total weight on all axles of a three axle vehicle shall not be more than sixty-two thousand pounds.

ii. The overall width of any state or municipally owned single vehicle, equipped with pneumatic tires, engaged in snow and ice control operations on public highways, shall not be more than twenty-five feet.

iii. The following weight limits shall apply to any state or municipally owned single vehicle, equipped with pneumatic tires, designed or fitted for snow and ice control operations, while engaged in other public works operations on public highways:

. The total weight on any one wheel, shall not be more than sixteen thousand pounds.

a. The total weight on a single axle, shall not be more than thirty-two thousand pounds.

b. The total weight on two consecutive axles, when such axles are spaced less than ten feet from center to center, shall not be more than thirty-eight thousand pounds.

c. The total weight on all axles of a two axle vehicle shall not be more than fifty-two thousand pounds; the total weight on all axles of a three axle vehicle shall not be more than fifty-eight thousand pounds.

17-b. Except over any highway which is a part of a state Interstate route, the following weight limits shall apply to any fire vehicle equipped with pneumatic tires.

iv. The total weight on any one wheel shall not be more than sixteen thousand pounds.

v. The total weight on a single axle shall not be more than thirty-two thousand pounds.

vi. The total weight on two consecutive axles, when such axles are spaced less than ten feet from center to center, shall not be more than forty-two thousand pounds.

vii. The total weight on all axles of a two axle vehicle shall not be more than fifty-two thousand pounds.

19. Except as provided in subdivision nineteen of this section, the violation of the provisions of this section including a violation related to the operation, within a city not wholly included within one county, of a vehicle which exceeds the limitations provided for in the rules and regulations of the city department of transportation of such city, shall be punishable by a fine of not less than two hundred nor more than five hundred dollars, or by imprisonment for not more than thirty days, or by both such fine and imprisonment, for the first offense; by a fine of not less than five hundred nor more than one thousand dollars, or by imprisonment for not more than sixty days, or by both such fine and imprisonment, for the second or subsequent offense; provided that a sentence or execution thereof for any violation under this subdivision may not be suspended. For any violation of the provisions of this section, including a violation related to the operation, within a city not wholly included within one county, of a vehicle which exceeds the limitations provided for in the rules and regulations of the city department of transportation of such city, the registration of the vehicle may be suspended for a period not to exceed one year whether at the time of the violation the vehicle was in charge of the owner or his agent. The provisions of section five hundred ten of this chapter shall apply to such suspension except as otherwise provided herein.

20.

. A violation of the provisions of subdivision ten of this section by any vehicle or combination of vehicles whose weight exceeds the weight limitations as set forth in this section, or such rules and regulations, or the weight limitations specified by permit issued pursuant to subdivision fifteen of this section shall be punishable by fines levied on the registered owner of the vehicle or vehicles, whether at the time of the violation the vehicle was in the charge of the registered owner or his agent or lessee in accordance with the following schedule:

| **Excess Total Weight (pounds) greater than** | **less than or equal to** | **Amount of Fine (dollars)** |
|---|---|---|
| 0 | 2,000 | 50 |
| 2,000 | 3,000 | 75 |
| 3,000 | 4,000 | 100 |
| 4,000 | 5,000 | 200 |
| 5,000 | 6,000 | 300 |
| 6,000 | 7,000 | 400 |
| 7,000 | 8,000 | 500 |
| 8,000 | 9,000 | 600 |
| 9,000 | 10,000 | 700 |
| 10,000 | 15,000 | 1,200 |
| 15,000 | 20,000 | 1,700 |
| 20,000 | 25,000 | 2,200 |
| 25,000 | 30,000 | 2,700 |
| 30,000 | six cents for each pound in excess of 30,000 | |

i. (NOTE: Where the excess total weight is greater than 10,000 pounds in excess of the limits specified by a permit, the permit shall be deemed voided and then the amount of fine shall be determined in accordance with the maximum weight which would have been in effect for the operation of such vehicle if the permit to exceed such maximum weight had not been issued.)

ii. A violation of the provisions of subdivisions eight and nine of this section by any vehicle or combination of vehicles whose weight exceeds the weight limitations as set forth in this section, or such rules or regulations, or the weight limitations specified by permit issued pursuant to subdivision fifteen of this section shall be punishable by fines levied on the registered owner of the vehicle or vehicles, whether at the time of the violation the vehicle was in the charge of the registered owner, or his agent, or lessee, in accordance with the following schedule:

iii.

| Percentage of excess weight (percentage) greater than | less than or equal to | Amount of Fine (dollars) |
|---|---|---|
| 0 | 5.0 | 100 |
| 5.0 | 10.0 | 200 |
| 10.0 | 15.0 | 350 |
| 15.0 | 20.0 | 600 |
| 20.0 | 25.0 | 1000 |
| 25.0 | 30.0 | 1600 |
| 30.0 | | 2450 |

iv. (NOTE: Where the excess axle or axles weight is greater than ten percent in excess of the limits specified by a permit, the permit shall be deemed voided and then the amount of fine shall be determined in accordance with the maximum weight which would have been in effect for the operation of such vehicle if the permit to exceed such maximum weight had not been issued.)

v. In connection with the weighting of a vehicle or combination of vehicles, if it is found that there is a violation of subdivision fifteen and/or subdivision ten and also of subdivision eight or nine, or both subdivisions eight and nine, of this section, there shall be a single fine imposed and the maximum amount of such fine shall not exceed the highest fine that could be imposed under paragraph (a) of this subdivision or this paragraph.

vi. Notwithstanding paragraph (a) of this subdivision, a violation of the provisions of subdivision ten of this section in a city not wholly included within one county or of the provisions of the rules or regulations of the city department of transportation setting forth the maximum allowable gross weight for the operation of a vehicle in such city without a permit for such vehicle, by any vehicle or combination of vehicles whose weight exceeds the weight limitations as set forth in this section, or such rules and regulations, or the weight limitations specified by permit issued pursuant to subdivision fifteen of this section (excluding enforcement scale tolerance not to exceed five percent) shall be punishable by fines levied on the registered owner of the vehicle or vehicles, whether at the time of the violation the vehicle was in the charge of the registered owner or his agent or lessee in accordance with the following schedule:

| Excess Total Wt (pounds) greater than | less than or equal to | Amount of Fine (dollars) |
|---|---|---|
| 0 | 2,000 | 50 |
| 2,000 | 3,000 | 75 |
| 3,000 | 4,000 | 100 |
| 4,000 | 5,000 | 200 |
| 5,000 | 6,000 | 300 |
| 6,000 | 7,000 | 400 |
| 7,000 | 8,000 | 500 |
| 8,000 | 9,000 | 600 |
| 9,000 | 10,000 | 700 |
| 10,000 | 15,000 | 1,200 |
| 15,000 | 20,000 | 1,700 |
| 20,000 | 25,000 | 2,200 |
| 25,000 | 30,000 | 2,700 |
| 30,000 | 35,000 | 3,200 |
| 35,000 | 40,000 | 3,700 |
| 40,000 | 45,000 | 4,200 |
| 45,000 | 50,000 or greater | 4,700 |

vii. (NOTE: Where the excess total weight is greater than the limits specified by a permit, the permit shall be deemed voided and then the amount of fine shall be determined in accordance with the maximum weight which would have been in effect for the operation of such vehicle if the permit to exceed such maximum weight had not been issued.)

viii. Notwithstanding paragraph (b) of this subdivision, a violation of the provisions of subdivisions eight and nine of this section in a city not wholly included within one county or of the provisions of the rules or regulations of the city department of transportation setting forth the maximum allowable axle or tandem axle weight for the operation of a vehicle in such city without a permit for such vehicle, by any vehicle or combination of vehicles whose weight exceeds the weight limitations as set forth in this section, or such rules or regulations, or the weight limitations specified by permit issued pursuant to subdivision fifteen of this section shall be punishable by fines levied on the registered owner of the vehicle or vehicles, whether at the time of the violation the vehicle was in the charge of the registered owner, or his agent, or lessee, in accordance with the following schedule:

| Percentage of excess weight (percentage) greater than | less than or equal to | Amount of Fine (dollars) |
|---|---|---|
| 0 | 5.0 | 100 |
| 5.0 | 10.0 | 200 |
| 10.0 | 15.0 | 350 |
| 15.0 | 20.0 | 600 |
| 20.0 | 25.0 | 1000 |
| 25.0 | 30.0 | 1600 |
| 30.0 | 35.0 | 2450 |
| 35.0 | 40.0 | 3600 |
| 40.0 | 45.0 | 5100 |
| 45.0 | | 7000 |

ix. (NOTE: Where the excess axle or axles weight is greater than the limits specified by a permit, the permit shall be deemed voided and then the amount of fine shall be determined in accordance with the maximum weight which would have been in effect for the operation of such vehicle if the permit to exceed such maximum weight had not been issued.)

x. In addition to the fines imposed by paragraphs (a), (b), (c) and

xi. of this subdivision, the registration of the vehicle may be suspended for a period not to exceed one year, whether at the time of the violation of this section the vehicle was in charge of the owner or his agent, or lessee. The provisions of section five hundred ten of this chapter shall apply to such suspension, except as otherwise provided herein.

xii. If the vehicle is the subject of a permit issued pursuant to paragraph (f) of subdivision fifteen of this section and if the registered owner of a vehicle fails to appear on the return date or subsequent adjourned date of a summons, appearance ticket or notice of violation issued pursuant to this subdivision or fails to pay a fine imposed pursuant to this subdivision, the registration of the vehicle or the privilege of operating the vehicle in this state shall be suspended for a period not to exceed one year. The suspension shall remain in effect until the registered owner's appearance or payment of the fine. The commissioner or his agent may deny a registration application of any other person for the same vehicle where the commissioner has reasonable grounds to believe that such registration will have the effect of defeating the purpose of this paragraph.

21. Notwithstanding the provisions of sections three hundred eighty-five, sixteen hundred thirty, sixteen hundred thirty-one, sixteen hundred forty, sixteen hundred forty-two, sixteen hundred fifty and sixteen hundred sixty of this chapter, nor of any other law, statute, ordinance, rule or regulation, the state, a city, county, town, village, public authority, including the port of New York and New Jersey authority, or commission, or any department, agency, subdivision or other entity thereof, shall not enact nor enforce any law, statute, ordinance, rule or regulation with respect to vehicle dimensions or weights which shall violate any of the provisions of the Federal surface transportation assistance act of nineteen hundred eighty-two. Any such law, statute, ordinance, rule or regulation which results in a notification of an imminent loss or

withholding of Federal highway aid to the state shall to the degree inconsistent hereafter be deemed null and void and shall not be enforced.

20-a. If a vehicle or combination of vehicles is operated in violation of this section, an appearance ticket or summons may be issued to the registrant of the vehicle, or if a combination of vehicles, to the registrant of the hauling vehicle rather than the operator. In the event the vehicle is operated by a person other than the registrant, any appearance ticket or summons issued to the registrant shall be served upon the operator, who shall be deemed the agent of the registrant for the purpose of receiving such appearance ticket or summons. Such operator-agent shall transmit such ticket or summons to the registrant of the vehicle or the hauling vehicle. If the registrant does not appear on the return date, a notice establishing a new return date and either containing all pertinent information relating to the charge which is contained on the summons or appearance ticket or accompanied by a copy of the information or complaint shall also be mailed by certified or registered mail by or on behalf of the court or administrative tribunal before whom the appearance ticket or summons is returnable to the registrant at the address given on the registration certificate for the vehicle, or if no registration certificate is produced at the time the appearance ticket or summons is issued, to the address of the registrant on file with the department or given to the person issuing the appearance ticket or summons. Whenever proceedings in a court or administrative tribunal of this state result in a conviction for a violation of this section, and the court or administrative tribunal has made the mailing specified herein, the court or administrative tribunal shall levy a mandatory surcharge, in addition to any sentence or other surcharge required or permitted by law, in the amount of thirty dollars. This mandatory surcharge shall be paid to the clerk of the court or administrative tribunal that rendered the conviction. Within the first ten days of the month following collection of the mandatory surcharge by a town or village court, the court shall pay such money to the state comptroller who shall, pursuant to subdivision two of section ninety-nine-a of the state finance law, credit such money to the account of the town or village which sent the mandatory surcharge. If such collecting authority is any other court of the unified system or administrative tribunal it shall, within such period, pay such money to the state comptroller who shall deposit such money into the state treasury. The provisions of this subdivision shall not apply to owner-operators of any motor vehicle or to any motor vehicle or trailer which is registered in the name of a person whose principal business is the lease or rental of motor vehicles or trailers unless the motor vehicle or trailer is being operated by an employee of the registrant or for a community of interest other than the lease or rental agreement between the parties to the lease or rental agreement.

22. The court may impose any sentence authorized by this chapter provided, however, any such sentence must include a fine as provided in this section.

In any case wherein the charge laid before the court alleges a violation of this section, any plea of guilty thereafter entered in satisfaction of such charge must include at least a plea of guilty to a violation of one of the subdivisions of this section. No other disposition by plea of guilty to any other charge in satisfaction of such charge shall be authorized. Provided, however, if the district attorney upon reviewing the available evidence determines that the charge of a violation of this section is not warranted, or suspension of registration is not, under the circumstances, appropriate he may consent, and the court may allow, a disposition by plea of guilty to that or another charge in satisfaction of such charge and, may waive suspension of registration as

required by this section, provided, however, the court must impose at least the minimum fine as authorized in this section for the offense of conviction.

23.

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# APPENDIX F

## Truck Regulations and Policies in other United States Cities
## Survey Responses and Contact Information

City: **Atlanta**
Contact: Harry Boxler
Agency: Atlanta Department of Public Works
Phone Number: (404) 330-6911
Website: http://www.ci.atlanta.ga.us/
E-mail Address: hboxler@atlantaga.gov
Population: 416,474

**1. Do you have any truck routes by city resolution? If yes, can you provide a copy?**

The information was unavailable in time for the completion of this paper.

**2. What are the total miles in the City's street network?**

There are 1,440 miles in the City's street network.

**3. What are the truck route miles in City's street network?**

The information was unavailable in time for the completion of this paper.

**4. Do you have an accident summary on truck routes/other streets?**

Mr. Boxler is doubtful that the City maintains such a database.

**5. Does the City receive many complaints about trucks using non-truck route streets?**

Mr. Boxler is not aware of any such complaints.

**6. What are the types of goods movement problems/issues in the City (i.e. curbside loading, oversized vehicles, overweight vehicles, trucks using local/residential streets, etc.)?**

To some degree the City has had issues with curbside loading, oversized vehicles, overweight vehicles and trucks using local/residential streets.

**7. Are truck route regulations enforced? If yes, by whom (i.e. DOT, City Police, State Police, other)?**

Mr. Boxler is doubtful that truck route regulations are enforced.

**8. How are truck routes identified (truck route signs, official city maps, etc.)?**

Trucks routes are very infrequently identified, if at all.

**9. Does the City have special truck route signs?**

Mr. Boxler is not aware of any special truck route signs.

**10. Is there any other information of value (i.e. MPO committees, reports/studies, etc.)?**

The Atlanta Regional Commission (MPO) is involved in freight issues.

City Name: **Baltimore**
Contact: Frank Murphy and Joseph David
Agency: Baltimore DOT
Phone Number: (410) 396-6856 and (410) 396-6872
E-Mail Address: frank.murphy@baltimorecity.gov; joseph.david@baltimorecity.gov
Website: http://baltimorecity.gov/government/transportation/index.html
Population: 651,154

**1. Do you have any truck routes by city resolution? If yes, can you provide a copy?**

Mr. Murphy said that there are no officially designed truck routes. Local Truck Zones were created in some Baltimore neighborhoods to protect their roads from unnecessary use by through trucks. Local Truck Zones restrict through trucks from designated multiple parallel streets. Permanent signs notify truck drivers of restricted areas and provide alternate routes for trucks passing through the Zone. The Baltimore DOT does not use Variable Message Signs to alert drivers of truck restrictions, except when new ones are implemented, as was recently done on Dundalk Avenue.

US40 is a truck bypass route. There are through restriction on trucks ¾ ton and over and 5 tons and over. Mr. David said there is a Local Truck Zone in East Baltimore, with nighttime restrictions. On Dundalk Avenue there are problems with truck traffic. A truck restriction map was produced for this area.

**2. What are the total miles in the City's street network?**

There are approximately 1,800 miles of streets in Baltimore.

**3. What are the truck route miles in City's street network?**

Since the City does not actually designate truck routes, there is no mileage figure for truck routes.

**4. Do you have an accident summary on truck routes/other streets?**

The City DOT does not have any specific accident data regarding trucks. They could research specific intersections, but it requires reviewing individual accident reports.

**5. Does the City receive many complaints about trucks using non-truck route streets?**

The City frequently gets complaints about truck traffic, especially in East Baltimore where the concentration of industries and port facilities is the greatest. The major requests from neighborhoods are to:

1) Restrict trucks on a route on which they are allowed;
2) Enforce violations of a truck restriction; and
3) Eliminate the parking of trucks or trailers on a City street.

**6. What are the types of goods movement problems/issues in the City (i.e. curbside loading, oversized vehicles, overweight vehicles, trucks using local/residential streets, etc.)?**

The main complaints from the goods movement industry are that the network of routes available to truckers continues to shrink as new restrictions are implemented.

**7. Are truck route regulations enforced? If yes, by whom (i.e. DOT, City Police, State Police, other)?**

Only the police can conduct enforcement. It (enforcement) is largely complaint driven. City police enforce trucking in Baltimore, with the State Police conduction safety testing.

**8. How are truck routes identified (truck route signs, official city maps, etc.)?**

There are no officially designated truck routes in Baltimore.

**9. Does the City have special truck route signs?**

No.

**10. Is there any other information of value (i.e. MPO committees, reports/studies, etc.)?**

Over the next year a waterfront development study is going to commence by the City of Baltimore. This study will have a freight component to it. The MPO has a committee called the Freight Movement Task Force, which is a good forum for discussing items of interest to the goods movement industry.

City: **Boston**
Contact: Barbara Lucas (MPAC), Bill Kuttner (CTPS), Anne McGahan (CTPS), Vinect Gupta (BTD)
Title: B.K. - Senior Planner
Agency: Metropolitan Planning Area Council, Central Transportation Planning Staff (MPO), Boston Transportation Department
Phone Number: (617) 451-2770 ext. 2043, (617) 973-7132, (617) 635-2756
Website: http://www.mapc.org/, http://www.cityofboston.gov/transportation/
E-mail Addresses: blucas@mapc.org, bkuttner@ctps.org; mcgahan@ctps.org (City of Cambridge study contact)
Population: 589,141

**1. Do you have any truck routes by city resolution? If yes, can you provide a copy?**

According to Mr. Gupta there are no designated truck routes in the City of Boston. The State DOT has truck routes through the city. The City of Boston has a hands-off approach when dealing with the trucking industry. In Massachusetts the towns can install no trucking signs, but they have to first get permission from the State to do so. Trucks cannot be banned from a State street. The city of Cambridge has some designated truck routes. Boston officials were concerned about the spill-over effect of trucks from Cambridge's truck routes. Mrs. Barbara Lucas stated that "although the Boston region has a number of truck restricted routes, it has only one designated truck route that she is aware of, and that is Binney Street in Cambridge - associated with a hazardous truck route."

**2. What are the total miles in the City's street network?**

Information was not available.

**3. What are the truck route miles in City's street network?**

There are no truck route miles in the City street network.

**4. Do you have an accident summary on truck routes/other streets?**

No.

**5. Does the City receive many complaints about trucks using non-truck route streets?**

The City receives complaints about trucks in residential areas, trucks double parking and idling.

**6. What are the types of goods movement problems/issues in the City (i.e. curbside loading, oversized vehicles, overweight vehicles, trucks using local/residential streets, etc.)?**

See response above.

**7. Are truck route regulations enforced? If yes, by whom (i.e. DOT, City Police, State Police, other)?**

Information unavailable.

**8. How are truck routes identified (truck route signs, official city maps, etc.)?**

There are no truck routes.

**9. Does the City have special truck route signs?**

No.

**10. Is there any other information of value (i.e. MPO committees, reports/studies, etc.)?**

The MPO is not too involved in freight issues. The Boston Transportation Department (BTD) is actively pursuing various proposals to minimize the impacts of truck traffic. The BTD *Access Boston 2000 – 2010* study freight action plan of March 2003 identified several areas to address truck traffic impacts. The city is going to attempt to encourage Back Street businesses to develop good neighbor policies such as: encouragement of meetings between businesses and neighborhood groups to address quality of life issues; enhancement of pedestrian safety; encouraging trucks to use the region's highways and other limited-access roads and avoiding neighborhood streets; reorientation of public facilities away from truck access conflicts and loading; encouraging business parking to be on-site; and greater enforcement of law prohibiting the idling of engines for more than five minutes.

Truck access improvements have been identified in South Boston, East Boston and Charleston, with improvements to be proposed for Newmarket/Crosstown and Allston/Brighton districts. The impact of freight operations and rail service on truck usage is being evaluated as part of the Beacon Park Freight Facility. The South Boston Truck Route Study recommended physical improvements to roadways that would keep trucks off of residential streets and enable them to have a more direct route to the Boston Marine Industrial Park and the Gillette and United States Postal Service facilities in the Fort Point District. Work is continuing towards the implementation of a truck route bypass road in East Boston on right-of-way that CSX is abandoning and that city is interested in. This grade separated bypass road could also be used to provide bus rapid transit service. A study will be done to develop a Medford Street Bypass Road by preserving the rail right-of-way to Moran Terminal in order to utilize it in the future as a freight bypass road.

February 12, 2003 meeting minutes from the CTPS Regional Transportation Advisory Council contained some interesting goods movement information. The city of Boston is trying to preserve industrial uses from being converted to office/residential uses in the Back Streets area due to its convenient access to the highway and rail line. There are a number of truck routes in the city of Boston. One example given was the South Boston Haul Road, which came about through collaboration between MassHighway, Massport and the City. The Massachusetts Executive Office of Transportation and Construction has acquired a rail and potential truck right-

of-way from Sullivan Square to Boston Harbor. The Lincoln Street corridor is also a potential new truck by-pass route.

City: **Buffalo**
Contact: Mike Murphy
Agency: City of Buffalo Department of Public Works
Phone Number: (716) 851-5384
Website: http://www.ci.buffalo.ny.us/document_79_8.html
E-Mail Address: mimurphy@city-buffalo.com
Population: 292,648

**Most of the information requested was not available in time for this report.**

**1. Do you have any truck routes by city resolution? If yes, can you provide a copy?**

The city of Buffalo does have truck routes that were approved by the Common Council. Trucks have to stay on these designated routes. Trucks smaller than ½ ton are permitted to travel off of the truck routes.

The remainder of the requested information was unavailable in time for the completion of this paper.

City: **Chicago**
Contact: Joe Alonzo, Mark Rinnan
Agency: Chicago DOT, Bureau of Traffic, Edwards and Kelcey – Chicago Office
Phone Number: (312) 744-1731
Website: www.cityofchicago.org
E-Mail Address: jbalonzo@cityofchicago.org
Population: 2,896,016

**1. Do you have any truck routes by city resolution? If yes, can you provide a copy?**

Yes, there is a designation of approved routes for vehicles operated under Section 9-72-035 of the municipal code of Chicago.

There is a pilot program called the Calumet Industrial Heavy Truck Pilot Program on a truck route from Chicago to Indiana. This program may be still alive, but the reconstruction to heavy truck route standards (greater than 80,000 pounds) in Indiana is not moving forward. Trucks are permitted on arterial streets. There are also state marked truck routes.

**2. What are the total miles in the City's street network?**

Chicago street mileage is 3,775 and 1,900 alley miles. Source: DPD website which cites the Chicago Municipal Reference Library.

**3. What are the truck route miles in City's street network?**

There are 880 truck route miles in the City's street network.

**4. Do you have an accident summary on truck routes/other streets?**

No.

**5. Does the City receive many complaints about trucks using non-truck route streets?**

(Info from Mark Rinnan) Complaints arise when neighborhoods change over from one land use to another (i.e. going from Industrial to Residential). Also, there is a dysfunction between west coast and east coast railroads that stop in Chicago, where freight gets off-loaded onto trucks and gets put on another train line. Approximately one-third of freight goes to other metropolitan areas; one-third goes to a five state area (Wisc.Mich. Ind. Ill. And Minn.), and the other one-third goes onto other areas. All this movement of freight within the city can cause complaints to be higher than most other cities that did not have these types of heavy movements.

**6. What are the types of goods movement problems/issues in the City (i.e. curbside loading, oversized vehicles, overweight vehicles, trucks using local/residential streets, etc.)?**

Over height/low clearance viaducts, turning radii at intersections making right turns; in specific sub-areas within Chicago, there are issues to be dealt with in terms of permitting overweight trucks on certain arterials in Chicago.

**7. Are truck route regulations enforced? If yes, by whom (i.e. DOT, City Police, State Police, other)?**

The Chicago Police perform truck regulation enforcement along boulevards, but on other streets it may not be as strictly enforced. The State Police handle enforcement along state streets.

**8. How are truck routes identified (truck route signs, official city maps, etc.)?**

Truck routes are identified by a list and some signage. There is truck route map for the Calumet pilot program. The state has some truck routes that are signed.

**9. Does the City have special truck route signs?**

Yes, black lettering on white background stating, "Truck Route".

**10. Is there any other information of value (i.e. MPO committees, reports/studies, etc.)?**

Recently trucking studies and reports have been completed by Edwards and Kelcey for the CDOT.

City: **Dallas**
Contact: Lloyd Denman
Agency: Dallas Public Works and Transportation, Transportation Operations
Phone Number: (214) 670-5273
Website: http://www.dallascityhall.com/dallas/eng/html/public_works_transportation.html
E-mail Address: ldenman@pbw.ci.dallas.tx.us
Population: 1,188,580

**1. Do you have any truck routes by city resolution? If yes, can you provide a copy?**

Yes. We were provided with a copy of the Dallas City Code.

**2. What are the total miles in the City's street network?**

There are 11,445 lane miles in the City's street network.

**3. What are the truck route miles in City's street network?**

There are approximately 225 road miles.

**4. Do you have an accident summary on truck routes/other streets?**

No.

**5. Does the City receive many complaints about trucks using non-truck route streets?**

Yes, mainly from residents concerned about cut-through traffic and damage to the street surfaces.

**6. What are the types of goods movement problems/issues in the City (i.e. curbside loading, oversized vehicles, overweight vehicles, trucks using local/residential streets, etc.)?**

The main problem is trucks that use residential streets.

**7. Are truck route regulations enforced? If yes, by whom (i.e. DOT, City Police, State Police, other)?**

Yes, the City police enforce truck route regulations.

**8. How are truck routes identified (truck route signs, official city maps, etc.)?**

Truck routes are identified by signage and city map.

**9. Does the City have special truck route signs?**

Yes, there are signs that have dark background with white lettering that say "Trailers Semi Trailers and Pole Trailers Prohibited" and truck route signs.

**10. Is there any other information of value (i.e. MPO committees, reports/studies, etc.)?**

The City designs new truck routes with thicker pavement.

City: **Denver**
Contact: David Weaver
Title:
Agency: Denver Traffic Engineering Services
Phone Number: (720) 865-3148
Website: www.denvergov.org
E-mail Address: david.weaver@ci.denver.co.us
Population: 554,636

***The information requested was unavailable in time for the completion of this paper.***

***City:*** *Detroit*
Contact: Sunny Jacob, Tiffany Julien
Title: Traffic Engineer, Planner
Agency: Detroit DOT - Traffic Engineering, Southeast Metropolitan Council of Government (MPO)
Phone Number: (313) 628-5604, (313) 961-4266
Website: http://www.ci.detroit.mi.us/ddot/main.htm, http://www.semcog.org/index.htm
E-mail Address: sunjac@ddot.ci.detroit.mi.us; julien@semcog.org
Population: 951,270

**1. Do you have any truck routes by city resolution? If yes, can you provide a copy?**

The City of Detroit does have an ordinance that prohibits truck routes. They are still in the process of identifying routes for trucks. Wayne County has developed a truck route map for the County (which includes Detroit).

**2. What are the total miles in the City's street network?**

There are 2,796 miles of roadway in the City of Detroit, with 2,288 streets, 125 miles of state trunk lines (freeways, arterials), 83 miles of County roads, 687 miles of major streets, and 1,901 miles of local streets.

**3. What are the truck route miles in City's street network?**

According to SEMCOG's estimates there are approximately 320 truck route miles in the city. There are 4,884 State and County truck route miles in southeast Michigan Region. 1,579 of the

miles are on State roadways and 3,305 of the truck route miles are on County roads. SEMCOG provided us with a map of the truck routes.

Although Mr. Jacob's did not have any information regarding the actual truck route miles, he reported that most of the major roads are truck routes.

**4. Do you have an accident summary on truck routes/other streets?**

SEMCOG has reports on crash data.

**5. Does the City receive many complaints about trucks using non-truck route streets?**

The information was unavailable in time for the completion of this paper.

**6. What are the types of goods movement problems/issues in the City (i.e. curbside loading, oversized vehicles, overweight vehicles, trucks using local/residential streets, etc.)?**

Overweight and oversized trucks are a problem in the City.

**7. Are truck route regulations enforced? If yes, by whom (i.e. DOT, City Police, State Police, other)?**

The City Police enforce truck route regulations.

**8. How are truck routes identified (truck route signs, official city maps, etc.)?**

There is no truck route signage, but there is an official city map showing truck routes.

**9. Does the City have special truck route signs?**

There is no special truck route signage.

**10. Is there any other information of value (i.e. MPO committees, reports/studies, etc.)?**

The MPO is in the process of developing a background paper on goods movement throughout the region. In April an MPO Freight Committee is going to be meeting.

City: **Houston**
Contact: Rick H. Grochoske
Title: Assistant Director
Agency: Public Works and Engineering Department, Traffic and Transportation Division, Traffic Management Branch
Phone Number:
Website: http://www.publicworks.cityofhouston.gov/traffic/trafficbranch.htm
E-mail address: rick.grochoske@cityofhouston.net
Population: 1,953,631

***The information requested was unavailable in time for the completion of this paper.***

**1. What are the total miles in the City's street network?**

There are over 16,000 lane miles of streets in the City of Houston (information obtained from the City of Houston website).

City: **Indianapolis**
Contact: Ron Brand
Title:
Agency: Indianapolis
Phone Number: (317) 327-5242
Website: http://www6.indygov.org/dpw/
E-mail address: rbrand@indygov.org
Population: 781,870

**1. Do you have any truck routes by city resolution? If yes, can you provide a copy?**

There is one truck route in the City but it was not done by resolution. There is a weight restriction on Meridian Street, which is a major north/south through street in downtown Indianapolis. Trucks can navigate any street in the city as long as there is not a height or weight restriction in place. The weight restriction on most streets in the city is 11,000 pounds.

**2. What are the total miles in the City's street network?**

This information was unavailable in time for the completion of this paper.

**3. What are the truck route miles in City's street network?**

The length of the Meridian Street weight restricted truck route is approximately 12.7 miles.

**4. Do you have an accident summary on truck routes/other streets?**

Accident information is maintained by the City, but is not readily available.

**5. Does the City receive many complaints about trucks using non-truck route streets?**

The City does receive occasional reports of trucks using streets they are not supposed to about every couple of months. Sometimes weight restrictions are put into place when it is brought to the attention of the City DOT.

**6. What are the types of goods movement problems/issues in the City (i.e. curbside loading, oversized vehicles, overweight vehicles, trucks using local/residential streets, etc.)?**

In the downtown area of the City there is not enough parking areas for trucks to load/unload their vehicles, so consequently they double park their vehicles. Loading areas can be used by anybody and are not restricted to just commercial vehicles. The City does receive occasional reports of trucks using streets they are not supposed to about every couple of months. Sometimes weight restrictions are put into place when it is brought to the attention of the City DOT.

***7. Are truck route regulations enforced? If yes, by whom (i.e. DOT, City Police, State Police, other)?***

The State Police provides law enforcement on the Interstates that pass through St. Louis. The City Police provide local law enforcement. Until recently the City Police did not have weight scales, but now they have acquired them and do enforce weight restrictions within the City.

**8. How are truck routes identified (truck route signs, official city maps, etc.)?**

The one truck route in the city is identified by truck route signage which is the standard used by MUTCD (white sign with black lettering).

**9. Does the City have special truck route signs?**

No.

**10. Is there any other information of value (i.e. MPO committees, reports/studies, etc.)?**

The MPO and State are not doing much special research or conducting meetings about truck movements in the City.

City: **Los Angeles**
Contact: Susan Bok, AICP
Title: Supervising Transportation Planner I
Agency: City of Los Angles DOT
Phone Number: (213) 580-5425
E-mail: sbok@dot.lacity.org
Website: http://www.lacity.org/ladot/
Population: 3,694,820

Contact: Hahn Le
Agency: University of Southern California, METRANS
E-mail: hdle@usc.edu

**1. Do you have any truck routes by city resolution? If yes, can you provide a copy?**

Mrs.Bok is not familiar with any LA City ordinance that designates truck routes, and LADOT doesn't post signs for such routes.

Mrs. Le mentioned that dedicated truck lane projects are on hold due to local/political problems. There are no special truck routes in SCAG.

**2. What are the total miles in the City's street network?**

Within the City of L.A. there is 6,500 miles of street, 1,400 miles of major and secondary roads, 5,000 miles of collector and local roads and 160 miles of freeway.

**3. What are the truck route miles in City's street network?**

There are no officially designated truck routes in the City's street network.

**4. Do you have an accident summary on truck routes/other streets?**

LADOT has analyzed truck accident data and identified numerous problem locations. The City has been addressing these problem sites through operational changes and capital improvement projects.

**5. Does the City receive many complaints about trucks using non-truck route streets?**

Information unavailable.

**6. What are the types of goods movement problems/issues in the City (i.e. curbside loading, oversized vehicles, overweight vehicles, trucks using local/residential streets, etc.)?**

Information unavailable.

**7. Are truck route regulations enforced? If yes, by whom (i.e. DOT, City Police, State Police, other)?**

The Los Angeles Police Department is the agency responsible for enforcing vehicle weight restrictions on City streets. As I mentioned previously, the City regulates truck movement primarily by restricting maximum vehicle weight on certain local and collector streets.

**8. How are truck routes identified (truck route signs, official city maps, etc.)?**

Truck routes have not been officially designated, but studies that were done have identified potential routes.

**9. Does the City have special truck route signs?**

No, the LADOT does not post signs for truck routes.

**10. Is there any other information of value (i.e. MPO committees, reports/studies, etc.)?**

Several agencies in the region are addressing truck movement issues. The following information was obtained from Mrs. Susan Bok of the LADOT.

a. SCAG (Southern California Association of Governments), our MPO, has a Goods Movement Advisory Committee, which meets bi-monthly. Members include industry and government representatives. LADOT provides input on a wide range of goods movement issues to the Regional Transportation Plan (airports, ports, rail, highways.)

b. METRANS, a university research center based at the University of Southern California and California State University, Long Beach, does advanced research on transportation issues and holds periodic conferences and seminars. Mrs. Bok has participated in METRANS projects and events on behalf of LADOT.

c. MTA, the Los Angeles County Metropolitan Transportation Authority, is also looking at goods movement issues, with an emphasis on truck movement. Mrs. Bok believes they are currently modeling truck volumes on the County freeway system. MTA also co-sponsors an annual Mobility-21 regional conference on transportation issues, including goods movement, with follow-up meetings and events. LADOT participates in Mobility-21 efforts, and Mrs. Bok has been involved from the perspective of goods movement.

d. Ports: The Ports of Los Angeles and Long Beach are dealing with mitigating truck impacts on surrounding residential communities and trying to improve truck movement from the ports to inland intermodal facilities (drayage) and regional distribution centers. This is a major regional issue which most of the agencies Mrs. Bok has mentioned here have been studying.

e. City of Los Angeles: Last year, Mayor James Hahn appointed a Transportation Task Force comprised of government and industry representatives to examine a range of transportation issues, including goods movement, and a report from that Task Force has just been issued. The report includes findings and recommendations from the Task Force's Goods Movement Committee. LADOT provided staff support for the Task Force, and Mrs. Bok was assigned to the Goods Movement Committee.

f. Caltrans, the California State Dept. of Transportation, is working on Federal designation of an inter-state corridor for goods movement, which begins in Southern California (basically, the Ports of Los Angeles and Long Beach) and extends to Houston and the Eastern Seaboard (to the best of Mrs. Bok's recollection.) This effort is aimed at gaining Federal recognition of the significant economic role of inter-state trucking along this corridor and, of course, getting Federal funding to help maintain and improve the Interstate highways, which comprise the corridor.

There are numerous, related efforts going on with respect to truck movement in the region, much of which are centered on truck activity in and out of the ports. Many of the same people are involved in these efforts.

City: **Miami**
Contact: Frank Baron
Title: Transportation Systems Manager
Agency: Miami-Dade MPO
Phone Number: (305) 375-4507
Website: http://www.co.miami-dade.fl.us/mpo/mpo6-comm-ftac.htm
E-mail Address: fbaron@miamidade.gov
Population: 362,470

**1. Do you have any truck routes by city resolution? If yes, can you provide a copy?**

There are no officially designated truck routes in the City of Miami. A truck route study is underway and halfway finished. The politically charged nature of designating and then implementing truck routes has made this a tough task to accomplish.

**2. What are the total miles in the City's street network?**

This information was unavailable in time for the completion of this paper.

**3. What are the truck route miles in City's street network?**

There are no officially designated truck routes in the City's street network.

**4. Do you have an accident summary on truck routes/other streets?**

There are no truck route miles in the City's street network.

**5. Does the City receive many complaints about trucks using non-truck route streets?**

In general, the city does receive many complaints about trucks using residential streets.

**6. What are the types of goods movement problems/issues in the City (i.e. curbside loading, oversized vehicles, overweight vehicles, trucks using local/residential streets, etc.)?**

See above response.

**7. Are truck route regulations enforced? If yes, by whom (i.e. DOT, City Police, State Police, other)?**

There are no designated truck routes in Miami.

**8. How are truck routes identified (truck route signs, official city maps, etc.)?**

There are no designated truck routes in Miami.

**9. Does the City have special truck route signs?**

No.

**10. Is there any other information of value (i.e. MPO committees, reports/studies, etc.)?**

The MPO is currently in the process of completing a truck route study, Trends in Heavy Truck Traffic Management Study. The completion date of this study is October 2004.

City Name: **New Haven**
Contact: Bruce Fischer
Agency: Traffic and Parking Department
Phone Number: (203) 946-8073
Website: www.cityofnewhaven.com/govt/gov30.htm
E-Mail address: bfischer@fnewhavenct.net
Population: 123,626

**1. Do you have any truck routes by city resolution? If yes, can you provide a copy?**

Yes, the city has established truck routes by authority of the State Traffic Commission and the local Traffic Authority.

**2. What are the total miles in the City's street network?**

New Haven has approximately 250 miles of roadway.

**3. What are the truck route miles in City's street network?**

This information was not available at this time.

**4. Do you have an accident summary on truck routes/other streets?**

The city traffic and parking department does not have an accident history summarized by 'truck route'.

**5. Does the City receive many complaints about trucks using non-truck route streets?**

The City receives constant complaints about trucks traveling through residential areas. These complaints are virtually all 'quality of life' issues, however some are specifically related to safety, including speed, size, noise and weight.

**6. What are the types of goods movement problems/issues in the City (i.e. curbside loading, oversized vehicles, overweight vehicles, trucks using local/residential streets, etc.)?**

See above response.

**7. Are truck route regulations enforced? If yes, by whom (i.e. DOT, City Police, State Police, other)?**

Truck regulations are enforced on complaint.

**8. How are truck routes identified (truck route signs, official city maps, etc.)?**

The truck routes are not formally identified, and although there is a map of truck routes in the city, it is out of date.

**9. Does the City have special truck route signs?**

No, the City does not have special truck route signs.

**10. Is there any other information of value (i.e. MPO committees, reports/studies, etc.)?**

No.

City: **Philadelphia**
Contact: Robert Wright
Agency: City of Philadelphia Department of Streets
Phone Number: (215) 686-5538
Website: http://www.phila.gov/streets/index.html
E-mail address: robert.wright@phila.gov
Population: 1,517,550

**1. Do you have any truck routes by city resolution? If yes, can you provide a copy?**

There are no arterial truck routes. This is due in part to the politics of this issue. There are geometric restrictions on city streets that do no permit thru movement of trucks.

**2. What are the total miles in the City's street network?**

There are 2,393 mile of streets in Philadelphia, with 1,975 miles of city streets, 65 miles of Fairmount Park roads, and 353 miles of state highways.

**3. What are the truck route miles in City's street network?**

There are no truck route miles in the City's street network.

**4. Do you have an accident summary on truck routes/other streets?**

Yes. The city does maintain an accident database that is linked to GIS and can show areas of concern.

**5. Does the City receive many complaints about trucks using non-truck route streets?**

There are no truck routes and the city receives it fair share of complaints about trucks going through residential areas of the City.

**6. What are the types of goods movement problems/issues in the City (i.e. curbside loading, oversized vehicles, overweight vehicles, trucks using local/residential streets, etc.)?**

See above response.

**7. Are truck route regulations enforced? If yes, by whom (i.e. DOT, City Police, State Police, other)?**

There are no truck routes.

**8. How are truck routes identified (truck route signs, official city maps, etc.)?**

There are no officially designated truck routes.

**9. Does the City have special truck route signs?**

No.

**10. Is there any other information of value (i.e. MPO committees, reports/studies, etc.)?**

None provided.

City: **Pittsburgh**
Contact: Ken Flack, Chuck Linhart (interviewee), Fred Reginella
Title: F.R. – Director of Engineering and Construction
Agency: Southwestern Pennsylvania Commission (MPO), Pittsburgh Bureau of Engineering, Traffic Division
Phone Number: (412) 391-5590 x311, (412) 255-2597
Website: www.city.pittsburgh.pa.us/ec/html/bureau_of_engineering_architec.html
E-mail Address: kflack@spc9.org
Population: 334,563

**Letter sent to Commissioner requesting additional information**

**1. Do you have any truck routes by city resolution? If yes, can you provide a copy?**

Yes, there are truck routes by ordinance. Copies of the ordinance can be obtained by contacting Mr. Fred Reginella, Director of Engineering and Construction, Room 301 City-County Building, 414 Grant Street, Pittsburgh, PA 15219.

**2. What are the total miles in the City's street network?**

This information was unavailable in time for the completion of this paper.

**3. What are the truck route miles in City's street network?**

This information was unavailable in time for the completion of this paper.

**4. Do you have an accident summary on truck routes/other streets?**

No, nothing is readily available and they have limited staff to perform such a task.

**5. Does the City receive many complaints about trucks using non-truck route streets?**

Yes, they get a fair amount of complaints about trucks related to trucks traveling along truck routes earlier than they are allowed to.

**6. What are the types of goods movement problems/issues in the City (i.e. curbside loading, oversized vehicles, overweight vehicles, trucks using local/residential streets, etc.)?**

The city engineering department deals with loading zones. They have an application for people to fill out. If they put a loading zone in near one business, then everybody has to share it. In general there is a thirty minute time limit on loading zones from 8:00 am to 6:00 pm. Supersized vehicles have to get the approval of the Traffic Division of the Bureau of Engineering. First, they have to submit an application to Penn DOT and the City DOT has to approve it. Supersized length is a truck that is either greater than 160 feet, greater than 16 feet in width, or weight more

than 201,000 pounds. For oversized vehicles Penn DOT tells the truckers (companies) to contact the City. So long as they are not traveling during rush hour, then there is usually no problem with oversized vehicles moving through the City. Oversized vehicles are below that of supersized vehicles, but greater than what a regular size vehicle. There are no weight restrictions along any City street, except at some bridges that are old and not be as well maintained.

**7. Are truck route regulations enforced? If yes, by whom (i.e. DOT, City Police, State Police, other)?**

This information was unavailable in time for the completion of this paper.

**8. How are truck routes identified (truck route signs, official city maps, etc.)?**

White background with black lettering, this is a regulated sign.

**9. Does the City have special truck route signs?**

This information was unavailable in time for the completion of this paper.

**10. Is there any other information of value (i.e. MPO committees, reports/studies, etc.)?**

No.

City: **Portland**
Contact: Steve Gerber, Susie Lahsene, Bridget Wieghart, Thomas Picco
Agency: City of Portland Office of Transportation, Port of Portland, Metro, Oregon DOT
Phone Number: (503) 823-7242, (503) 944-7517, (503) 797-1775, (503) 731-8230
Website: http://www.trans.ci.portland.or.us/
E-mail Address: Steve.Gerber@pdxtrans.org; lahses@portptld.com;
wieghartb@metro.dst.or.us; Thomas.J.Picco@state.or.us
Population: 572,059

**1. Do you know of any truck routes by Portland city resolution? If yes, can you provide us with a copy of the resolution?**

The City of Portland designates the function (classification) of all streets within the city limits, including those designated to function as truck streets. These classifications include both city streets and highways or arterials under the purview of the state. The Street Classification and Description Policies are contained within the Transportation System Plan (Chapter 2, Transportation Element), an element of the City's Comprehensive Plan. The City's Comprehensive Plan and hence the Street Classification and Description Policies are adopted by ordinance.

**2. What are the total miles in the City's street network?**

The City's street network includes approximately 3,805 lane miles of improved streets and 160 lane miles of unimproved streets.

**3. What are the truck route miles in City's street network?**

There are 480 miles of designated truck streets in the City of Portland, in four classifications, including:

- 109 miles of Regional Truck Streets (state highways and freeways),
- 65 miles of Major Truck Streets (intended for through trips or trips with only one end in a given transportation district, Portland has eight transportation districts);
- 110 miles of Minor Truck Streets (intended for distribution of truck trips between Major or Regional Truck Streets and points of origin or destination),
- 196 miles of streets in designated Freight Districts (including arterial and local streets), and
- All streets not designated as a Truck Street are Local Service Truck Streets to accommodate the delivery of goods and services, or those businesses requiring the use of trucks that are not located on a designated Truck Street or within a Freight District.

**4. Do you have an accident summary on truck routes/other streets?**

The City of Portland does keep accident statistics. These statistics are identifiable in terms of street classifications.

**5. Does the City receive many complaints about trucks using non-truck route streets?**

Those incidents of trucks using streets posted for "No Trucks" is not great in quantity and often confused due to the occasional need for local trucks (delivery, service or business related). The

intent of posting streets for "No Trucks" is to eliminate through or non-local truck trips and not to eliminate all truck trips. The signing we use is not clear in this regard.

In other cases, complaints may be generated by a business that is located some distance from a designated truck street. An example that we are currently dealing with is the main branch post office that is located in a transition area where the industrial zoning has been slowly receding over time, leaving it surrounded by increasing residential/commercial development.

The frequency of complaint is typically greater on streets designated as Truck Streets, where those streets coincide with residential and commercial land uses, including designated Town Centers, Main Streets or Pedestrian Districts. Complaints are also generated when Truck Streets coincide with other Street Classifications such as Transit and Bicycle Streets.

**6. What are the types of goods movement problems/issues in the City (i.e. curbside loading, oversized vehicles, overweight vehicles, trucks using local/residential streets, etc.)?**

Those involved in the distribution of goods and services, both freight and delivery, have identified a number of issues mostly relating to delay, out-of-direction travel and reliability, including:

- Capacity
- Congestion (including growing commuter peak hours)
- At-Grade Rail Crossings (also effecting trains)
- Limited Alternative Routes
- Weight Limitations (Bridges)
- Outdated or Inadequate Private Loading Facilities
- Lack of On-Street Loading Facilities (some areas)
- Street Condition and/or Dimensions
- Street and Bridge Construction/Repair
- Limited Opportunities for Oversized Vehicles
- Access to the Regional Highway System
- Constrained/Limited Resources for Transportation Improvements/New Facilities

The conflicts experienced by freight and delivery activities include:

- In-Street Loading (See: private and on-street loading, above)
- Truck Street Conflicts (coincidence) with Town Centers, Main Streets, Pedestrian Districts
- Truck Street Conflicts (coincidence) with Transit, Bicycle and/or Pedestrian Streets
- Freight and Industrial District Proximity to Residential/Commercial Areas
- Encroachment of Residential/Commercial Use on Freight/Industrial Districts
- Truck Frequency
- Truck Size
- Time/Noise of Loading Activities (including trains)

**7. Are truck route regulations enforced? If yes, by whom (i.e. DOT, City Police, State Police, County Police, other)?**

Truck street regulations, on those few city streets that are posted for "No Trucks", are enforced by the City Police. Truck regulations throughout Oregon are enforced by both local (city and county) police and state regulatory bodies, including police and Oregon DOT employees.

**8. How are truck routes identified (truck route signs, official city maps, etc.)?**

Truck streets are identified on city maps, including the Street Classification Maps contained within the Transportation System Plan. The state does, in some cases, provide truck route signs on highways or streets within their jurisdiction.

**9. Does the City have special truck route signs?**

No, there are city direction/information signs for trucks on truck streets, but there are no signs identifying a street as a truck street.

**10. Is there any other information of value related to movement of goods via trucking (i.e. MPO committees on goods movement, State committees, reports/studies, etc.)?**

The City of Portland is producing a Freight Master Plan that will focus on trucking and City of Portland streets, but will attempt to recognize the links between all modes of freight. The review and advice of the Portland Freight Committee enhances this effort.

The Portland Metropolitan Government (MPO) supports a Regional Freight Committee, and in conjunction with the Port of Portland has produced a regional commodity flow assessment, and is presently engaged in furthering the base knowledge through a Freight Data Collection effort, including an origin and destination element (for trucking).

The State of Oregon has formed the Oregon Freight Advisory Committee that works closely with Oregon Department of Transportation staff and the Oregon Transportation Commission. The Oregon Department of Transportation has produced several documents relating to freight, including "Freight Moves the Oregon Economy". They are also presently engaged in creating a statewide commodity flow assessment.

City: **Sacramento**
Contact: Jon Fitzpatrick
Title: Traffic Investigator II
Agency: City of Sacramento Traffic Engineering Services
Phone Number: 916-808-8595
Website: http://www.pwsacramento.com/traffic/index.cfm
E-mail Address: jFitzpatrick@cityofsacramento.org
Population: 407,018

**1. Do you have any truck routes by city resolution? If yes, can you provide a copy?**

Yes, the City, County, and State truck routes are designated by each jurisdiction. In the past the Sacramento Traffic Engineering Services Dept. has requested approval from the City Council on various truck route issues. The City of Sacramento requires that the applicant provide a written request outlining the size, weight and proposed route of the vehicle that will be used to transport goods. Public Works and the Police Departments evaluate the proposed route and submit the request to Council for approval. The County of Sacramento has recently begun updating their existing and proposed truck routes, and it is recommended that the City coordinate proposed routes with the County.

**STAA BACKGROUND INFORMATION:**

In 1982, the Federal government passed the Surface Transportation Assistance Act (STAA). This act requires states to allow certain longer trucks on a network of Federal highways, referred to as the "National Network (NN)." A STAA truck is longer than a "California Legal" truck and may operate only on specific highways in California. These roadways are evaluated to determine whether the facilities can safely accommodate STAA vehicles. This is determined through an engineering analysis.

The California Vehicle Code states that "local authorities may establish a process whereby access to terminals or services may be applied for upon a route not previously established as an access route (CVC 35401.5)."

**2. What are the total miles in the City's street network?**

There are approximately 2,935 miles in the City's street network.

**3. What are the truck route miles in City's street network?**

This data is unavailable at this time.

**4. Do you have an accident summary on truck routes/other streets?**

Yes, they have software that can pull up various reports on accident history. However, they cannot pull up reports based on truck collisions.

**5. Does the City receive many complaints about trucks using non-truck route streets?**

They occasionally receive complaints of trucks using non-designated or residential streets.

**6. What are the types of goods movement problems/issues in the City (i.e. curbside loading, oversized vehicles, overweight vehicles, trucks using local/residential streets, etc.)?**

Sacramento has encountered issues with trucks loading and unloading in roadway travel lanes, over length trucks using roadway's that are not approved as STAA truck route's, as well as trucks that use residential streets because it is the most direct route or it is a short cut to bypass traffic congestion.

**7. Are truck route regulations enforced? If yes, by whom (i.e. DOT, City Police, State Police, other)?**

Truck regulations are enforced by City Police and the California Highway Patrol when time and resources/staffing permit.

**8. How are truck routes identified (truck route signs, official city maps, etc.)?**

Sacramento has a City truck map on their web page
http://www.pwsacramento.org/traffic/publications.html , as well as signage.

**9. Does the City have special truck route signs?**

This information was unavailable in time for the completion of this paper.

**10. Is there any other information of value (i.e. MPO committees, reports/studies, etc.)?**

Information unavailable.

City: **San Francisco**
Contact: Tom Folks
Title: Senior Engineer
Agency: San Francisco Department of Parking and Traffic
Phone Number: (415) 554-2306
Website: http://www.sfgov.org/site/dpt_index.asp
E-mail Address: tom.folks@sfgov.org
Population: 776,733

**1. Do you have any truck routes by city resolution? If yes, can you provide a copy?**

No, there are no city truck routes that are designated by city resolution. About a year or two ago there was a proposal to ban trucks from downtown area in the daytime, similar to what Manhattan has done. However, this proposal met with stiff opposition from the hotels, bars, restaurants and Teamsters Union. Consequently, this proposal was withdrawn.

**2. What are the total miles in the City's street network?**

There are 946 total miles in the City's street network.

**3. What are the truck route miles in City's street network?**

There are no truck routes in the City of San Francisco, but there have been truck bypass signs placed in various neighborhoods to redirect truck traffic away from residential areas.

**4. Do you have an accident summary on truck routes/other streets?**

Accident data is kept by the city and state.

**5. Does the City receive many complaints about trucks using non-truck route streets?**

The City receives about half a dozen complaints a year on trucks.

**6. What are the types of goods movement problems/issues in the City (i.e. curbside loading, oversized vehicles, overweight vehicles, trucks using local/residential streets, etc.)?**

Commercial vehicles and vehicles with 6 axels have curbside loading restrictions. Curbs are painted yellow for commercial vehicle usage, with 6 wheel zones painted yellow with black stripes.

**7. Are truck route regulations enforced? If yes, by whom (i.e. DOT, City Police, State Police, other)?**

This information was unavailable in time for the completion of this paper.

**8. How are truck routes identified (truck route signs, official city maps, etc.)?**

There is some signage in place for bypass truck routes, but no official truck route signs.

**9. Does the City have special truck route signs?**

No.

**10. Is there any other information of value (i.e. MPO committees, reports/studies, etc.)?**

An ad hoc committee meets to deal with truck delivery problems on an as needed basis. I have contacted a Mr. Jerry Robbins (415) 554-2343 to see if he knows of any truck studies or MPO activities, but did not get receive any response back.

City: **St. Louis**
Contact: Steve Runde
Title: Traffic Commissioner
Agency: Street Department
Phone Number: Secretary (314) 647-3111 ext. 1006
E-mail address: commissioner secretary dusoldm@stlouiscity.com
Website: http://stlouis.missouri.org/government/cdstrts.htm
Population: 348,189

**The information requested was unavailable in time for the completion of this paper.**

City: **Seattle**
Contact: Ron Borowski
Agency: Seattle Department of Transportation
Phone Number: (206) 684-8370
Website: http://www.seattle.gov/transportation/default.htm
E-mail Address: ron.borowski@seattle.gov
Population: 563,374

**1. Do you have any truck routes by city resolution? If yes, can you provide a copy?**

The City of Seattle has Major Truck Streets, defined as arterial streets that accommodate freight movement through the city, and to and from major freight traffic generators. The street is typically a designated principal arterial. Major Truck Streets generally carry heavier loads and higher truck volumes than other streets in the City. SDOT uses the designation of Major Truck Street on an on-going basis as an important criterion for street design, traffic management decision and pavement design and repair. Truck restrictions are in place in downtown Seattle, requiring large trucks to travel through downtown only at off-peak hours.

**2. What are the total miles in the City's street network?**

This information was unavailable in time for the completion of this paper.

**3. What are the truck route miles in City's street network?**

This information was unavailable in time for the completion of this paper.

**4. Do you have an accident summary on truck routes/other streets?**

No, the data section of SDOT could obtain this information upon special request.

**5. Does the City receive many complaints about trucks using non-truck route streets?**

Yes, the City receives many complaints about truck use of non-trucking routes and the lack of overnight parking.

**6. What are the types of goods movement problems/issues in the City (i.e. curbside loading, oversized vehicles, overweight vehicles, trucks using local/residential streets, etc.)?**

The City of Seattle deals will curbside loading, overweight vehicles, oversized vehicles and trucks using local residential streets.

**7. Are truck route regulations enforced? If yes, by whom (i.e. DOT, City Police, State Police, other)?**

There are three levels of truck regulation enforcement. First, the Seattle police department issue citations, there is a traffic section to keep traffic moving. Second, parking enforcement officers deal with curb issues, loading zones, parking zones, taxi stops, etc. If a vehicle is parked in a commercial vehicle zone it needs to have a license plate to park there or have a special sticker, if not they get a ticket. Third, commercial vehicle enforcement officers (3 people) deal with the trucking community on a host of issues such as overlegal permits (over length-width-height and weight). They issue citations for someone without a proper permit and they have moveable scales to do spot checks. These officers will issue tickets if a vehicle is overweight. The commercial vehicle enforcement officers are limited power police officers.

There are state highways and Interstates (5/90) that pass through the City. The State Police deal with Interstates that pass through the city, which on the state highway the City Police enforce regulations.

Sometimes question arise as to what are the overlegal routes in the city? There is not a special map for overlegal vehicles, but these trips are allowed by permit. Permit desk staff can assist truckers determine the best route if they are overlegal. Enforcement officer can also help with these issues, but they have limited staff resources to do so, so the permit desk staff handles this task.

**8. How are truck routes identified (truck route signs, official city maps, etc.)?**

Truck routes are identified by signage and official city maps.

**9. Does the City have special truck route signs?**

The City of Seattle does have dedicated truck route signs. These signs are green and say “Truck Route” with an arrow pointing toward the direction of the route.

**10. Is there any other information of value (i.e. MPO committees, reports/studies, etc.)?**

The Port of Seattle has the Truckers’ Guide which is required to be in the cab of the truck driver, is easy to read, covered in plastic, and was developed to allow a truck driver to asses if they are on the right street. The Port of Seattle did this effort in conjunction with SDOT.

SDOT runs the traffic signals, parking, driveway permits, truck use, so from the publics' perspective those are city streets. The County DOT handles unincorporated portions of King County and run the county bus system.

City: **Washington, D.C**.
Contact: Ken Laden
Agency: Department of Transportation
Phone Number:
Website: http://ddot.dc.gov/ddot/cwp/view,a,1249,q,580975.asp
E-mail Address: Ken.Laden@dc.gov
Population: 572,059

*The information obtained is from the Volpe truck study.*

**1. Do you have any truck routes by city resolution? If yes, can you provide a copy?**

There are no designated truck routes, the streets have become de facto truck routes. Washington D.C. has restricted truck access to many streets, with many being on residential streets, because of complaints from area residents. Truck restrictions fall into five categories: No through trucks; no through trucks over 1¼ tons; no through trucks with more than two axels; no trucks or buses; and no trucks over 1¼ tons and no buses.

There is a proposed truck route designation that was developed for a 3-tired system, based on the roadway characteristics (i.e. level of truck traffic/truck volumes, land use/roadway classification, design and pavement condition).

**2. What are the total miles in the City's street network?**

This information was unavailable in time for the completion of this paper.

**3. What are the truck route miles in City's street network?**

There are no designated truck routes. On average, trucks represent 5% of the traffic entering and exiting the city.

**4. Do you have an accident summary on truck routes/other streets?**

Accident data is collected by the Metropolitan Police Department and analyzed by the DDOT. Refer to pages 10-11 of the Motor Carrier Management and Threat Assessment Study. Truck accidents are common at some intersections like New York Avenue and Bladensburg Road in areas where there are high truck volumes. These areas are planned for improvement by the DDOT.

**5. Does the City receive many complaints about trucks using non-truck route streets?**

The city does not have truck routes as of yet.

**6. What are the types of goods movement problems/issues in the City (i.e. curbside loading, oversized vehicles, overweight vehicles, trucks using local/residential streets, etc.)?**

Recurring themes identified in the Assessment Study include double parking/loading zone problems, insufficient truck restriction enforcement, border restriction mismatches, truck traffic volumes and speeding, construction-related noise and vibration, cut-through traffic, garbage trucks, problem intersections, and truck traffic in residential neighborhoods.

**7. Are truck route regulations enforced? If yes, by whom (i.e. DOT, City Police, State Police, other)?**

Enforcement of weight and speed regulations is the responsibility of the Metropolitan Police Department. The police department has a Motor Carrier Unit, but this unit is often soft staffed, and ineffective in enforcement.

**8. How are truck routes identified (truck route signs, official city maps, etc.)?**

Clean and consistent signing would inform truck drivers of regulations.

**9. Does the City have special truck route signs?**

No, not as of yet.

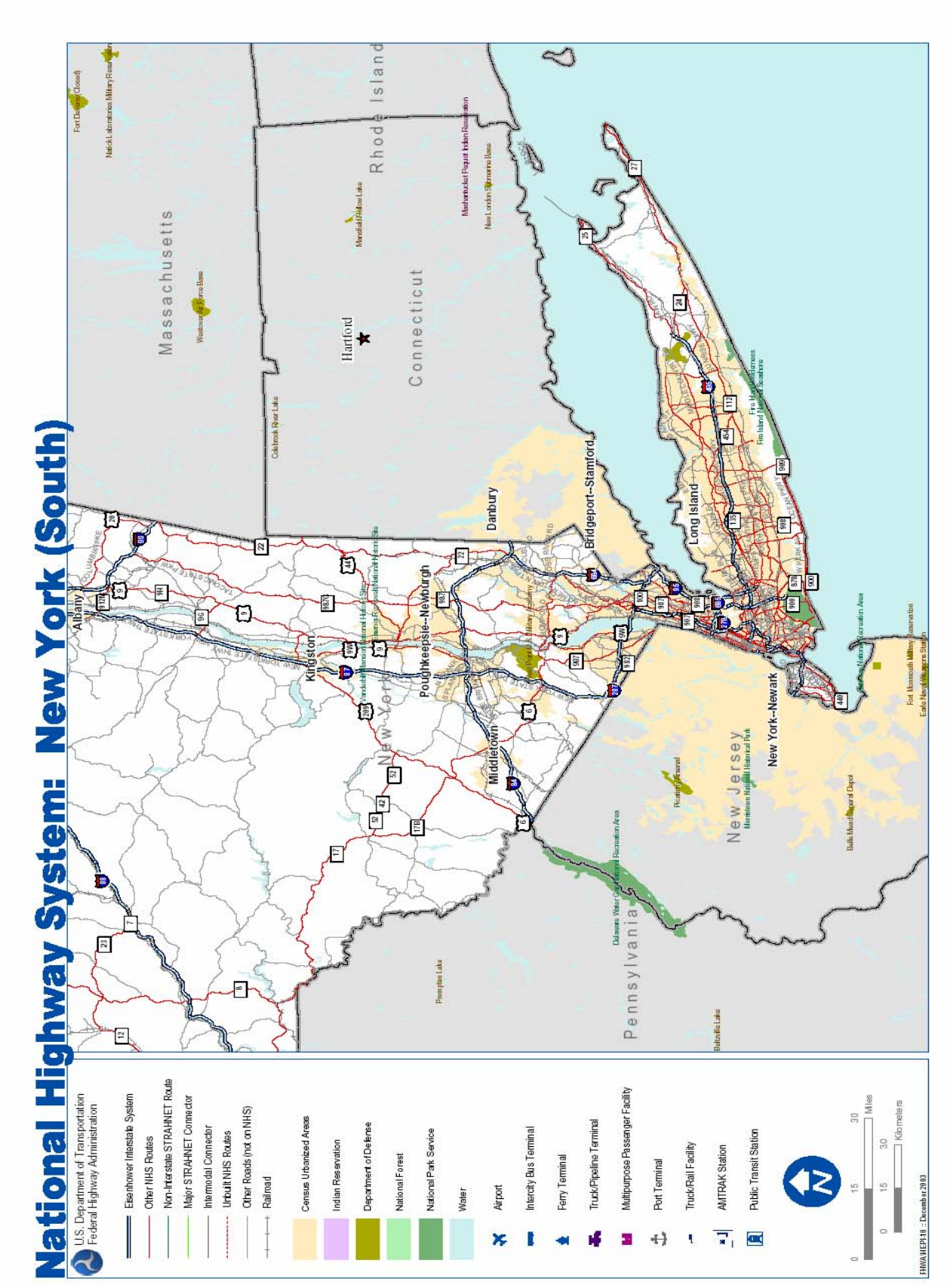
**10. Is there any other information of value (i.e. MPO committees, reports/studies, etc.)?**

The Motor Carrier Management and Threat Assessment Study is in the process of being completed.

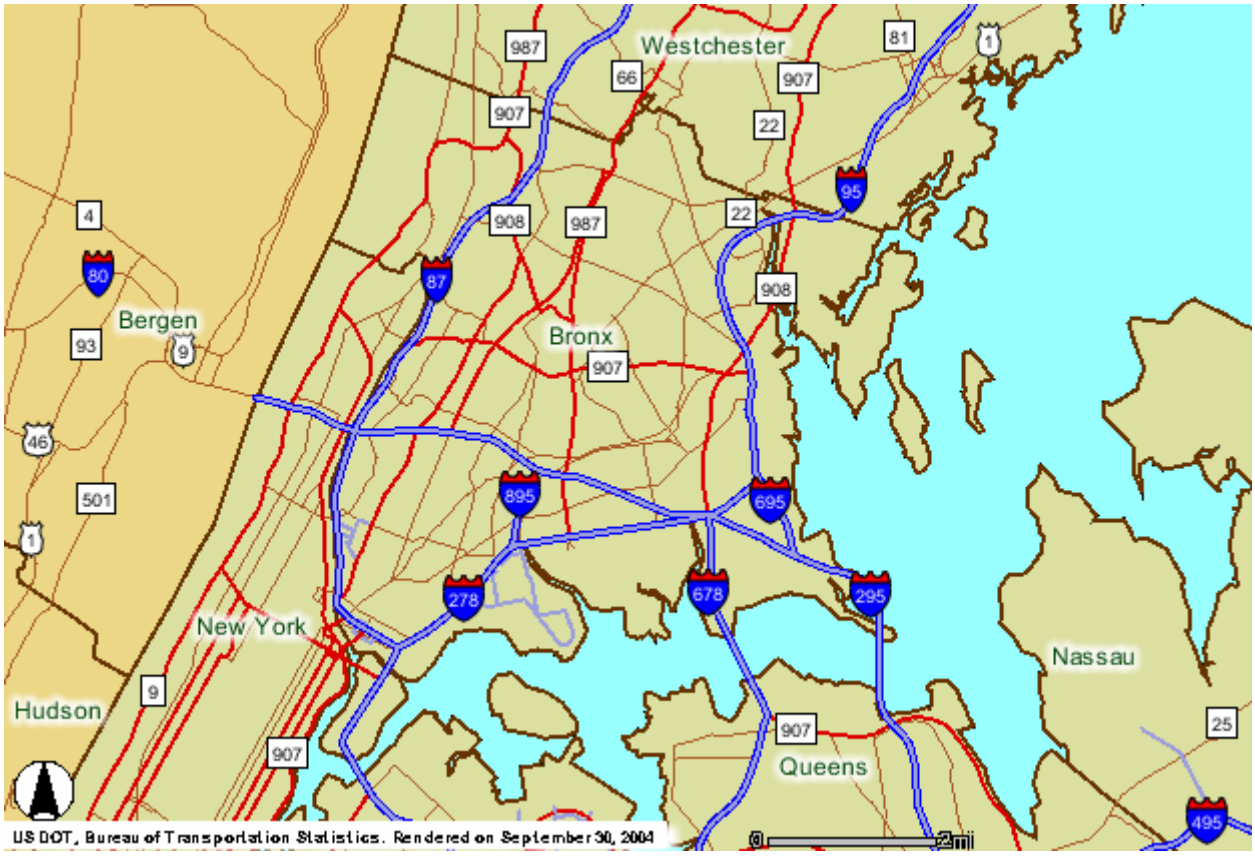
# APPENDIX G

## USDOT – FHWA National Highway System Maps of New York City[84]

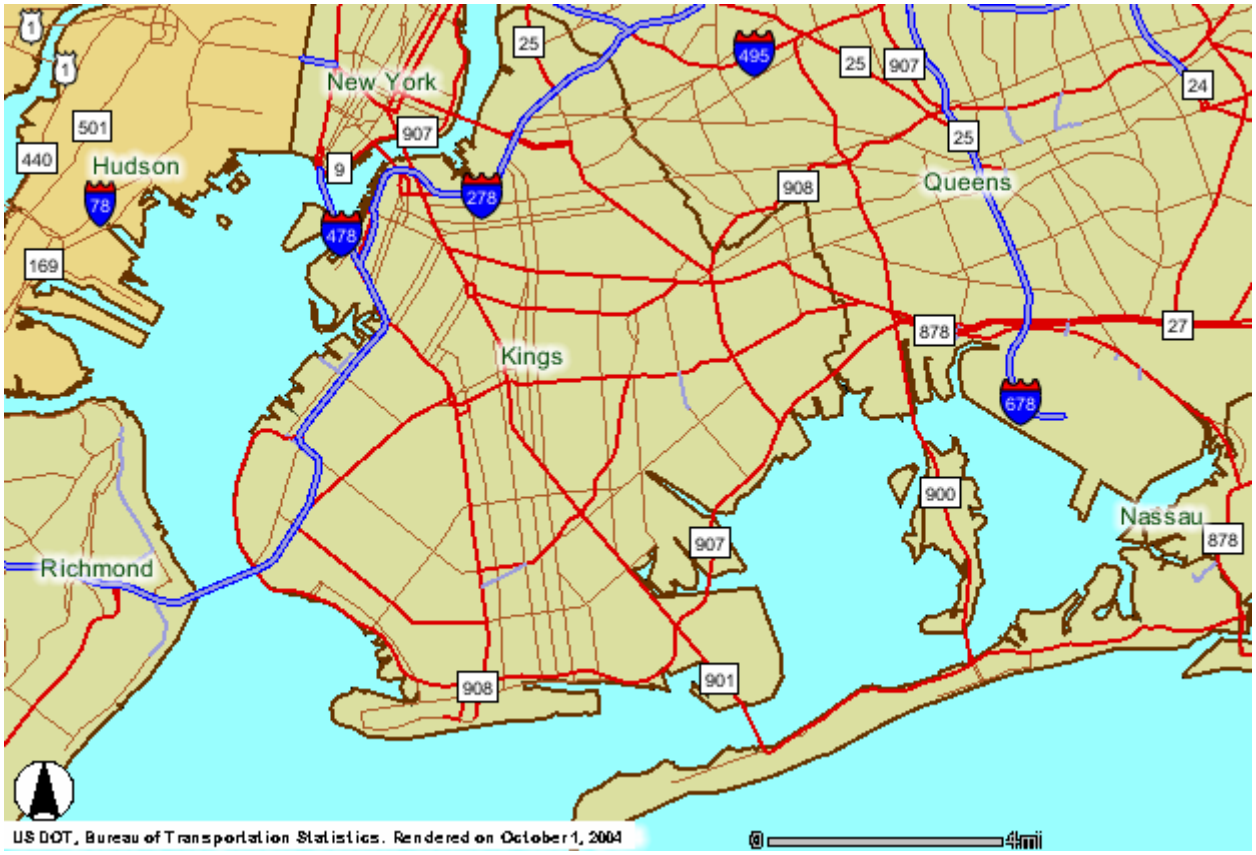
[84] Maps obtained from FHWA website: http://www.fhwa.dot.gov/hep10/nhs/


National Highway System: New York (South)
U.S. Department of Transportation
Federal Highway Administration
Eisenhower Interstate System
Other NHS Routes
Non-Interstate STRAHNET Route
Major STRAHNET Connector
Intermodal Connector
Unbuilt NHS Routes
Other Roads (not on NHS)
Railroad
Census Urbanized Areas
Indian Reservation
Department of Defense
National Forest
National Park Service
Water
Airport
Intercity Bus Terminal
Ferry Terminal
Truck/Pipeline Terminal
Multipurpose Passenger Facility
Port Terminal
Truck/Rail Facility
AMTRAK Station
Public Transit Station
Miles
Kilometers
Albany
Kingston
Poughkeepsie--Newburgh
Middletown
Danbury
Bridgeport--Stamford
Long Island
New York--Newark
Hartford
Massachusetts
Connecticut
Rhode Island
New York
New Jersey
Pennsylvania

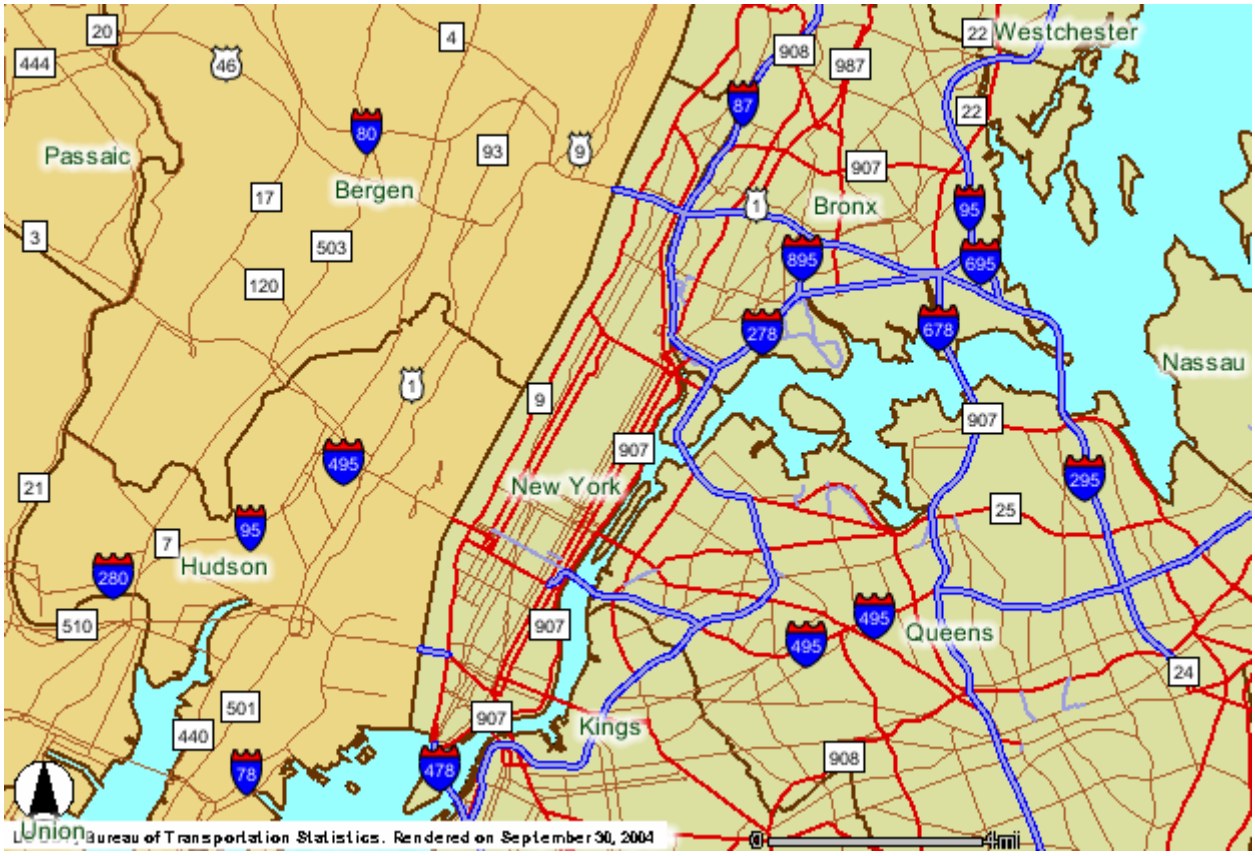
**Bronx National Highway System (NHS)***
***Includes Interstates in blue and Other NHS Routes highlighted in red**



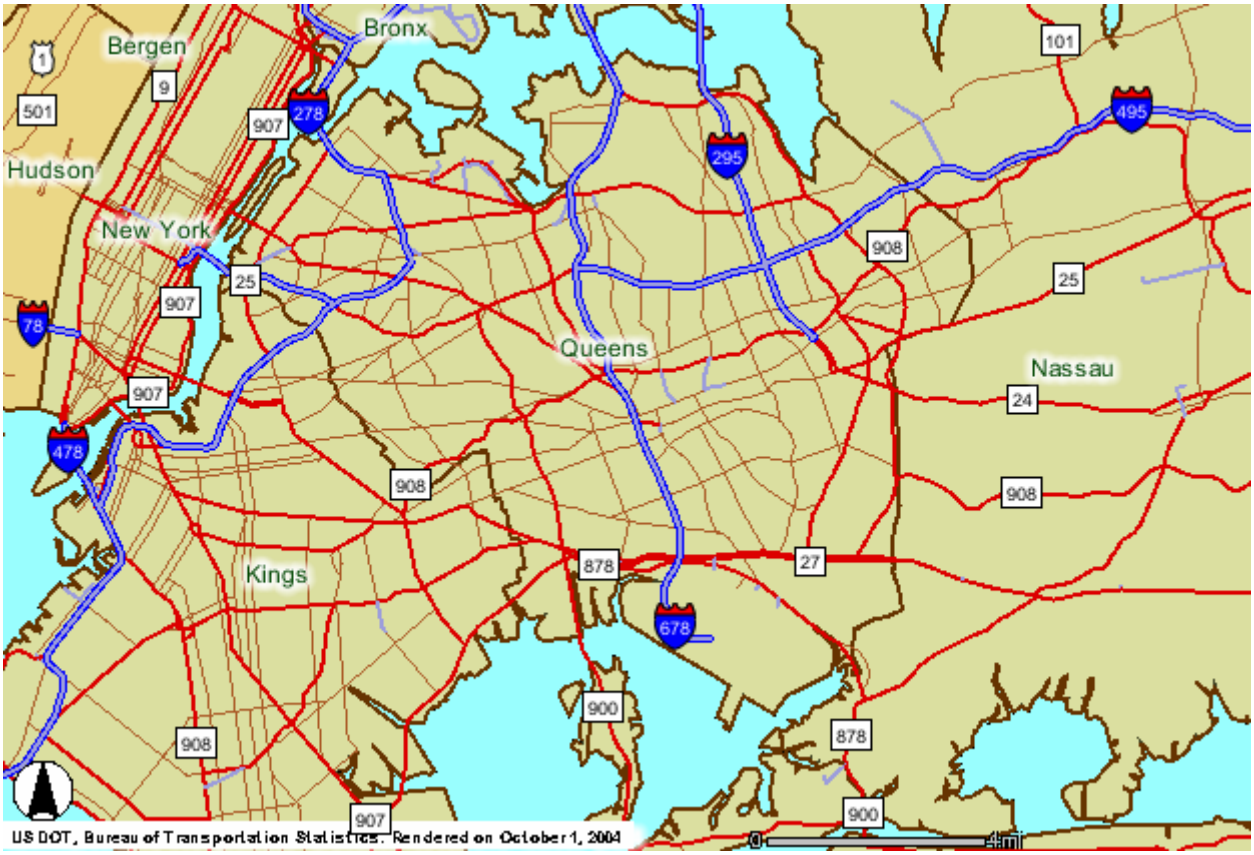
**Brooklyn National Highway System (NHS)***
***Includes Interstates in blue and Other NHS Routes highlighted in red**



**Manhattan National Highway System (NHS)***
***Includes Interstates in blue and Other NHS Routes highlighted in red**



## Queens National Highway System (NHS)*
## *Includes Interstates in blue and Other NHS Routes highlighted in red



**Staten Island National Highway System***
*** Interstates in blue and NHS Routes highlighted in red**