Final Environmental Impact Statement

CEQR # 03TLC001Y

Proposed Issuance of Additional Taxicab Medallions

Prepared For:
New York City Taxi and Limousine Commission

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IMPACT STUDY OF THE ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

FINAL ENVIRONMENTAL IMPACT STATEMENT

FEBRUARY 2004

CEQR # 03TLC001Y

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1.0 EXECUTIVE SUMMARY

1.1 Description of Proposed Action

The TLC is considering the issuance through the sale, by public auction or other competitive method, of up to 900 additional New York City taxicab medallions. It is contemplated that these medallions will be issued in equal numbers over a three-year period commencing in fiscal Year 2004. The TLC is proposing that the first 300 medallions will be issued for sale in the fiscal year ending June 30, 2004, followed by an additional 300 issued for sale in the fiscal year ending June 30, 2005 and the remaining 300 medallions issued for sale in the fiscal year ending June 30, 2006. The TLC could limit the sale of medallions after the first sale of 300 medallions 2004, or after the second sale of 300 medallions in 2005. If all 900 medallions are sold by the year 2006, it would bring the total amount of taxicab medallions in New York City to 13,087.

1.2 Probable Impacts of the Proposed Project

1.2.1 Land Use, Zoning And Public Policy

The proposed action is not expected to have a significant impact relative to land use in New York City. Storage of the additional 900 taxicabs by the year 2006 proposed as part of the action is not expected to affect land use in the City as cab drivers work various shifts throughout the entire day and parking of the vehicles would occur at staggered times. This would allow for parking of vehicles to be absorbed by additional space available at taxi garages and lots and other current means of parking already established for taxicabs.

The proposed action would not conflict with or change any existing New York City zoning regulations or public policy. The action does not conflict with, nor does it seek to change or modify any part of the New York City *Zoning Resolution*. In addition, the action does not conflict with any public policy regarding the regulation of taxicab service.

1.2.2 Socioeconomic Conditions

The results of the simulation suggest that the proposed increase in medallions would have a significant adverse impact on the taxicab industry in New York City. Under the no action condition, medallion values are expected to rise from a value of $239,000 in 2003 to $261,000 by the year 2007. In contrast, if the TLC limits the medallion sale to 300 sold in 2004, the value of medallions would decrease to $232,000. If an additional 300 are sold in 2005, medallion values would drop to $229,000. And, if the final 300 medallions are sold in 2006, medallion values would further decrease to $226,000. In the year 2007, medallions are expected to recover slightly back to a value of $232,000, but still lower than the projected future no-action value of $261,000.

However, the TLC is currently reviewing petitions from industry groups to increase taxicab fares. If a fare increase were approved, it would occur within the period wherein the proposed action would be completed. Raising the fare of taxicabs alters the dynamic between taxi demand and supply and if it occurred during the same time as the medallion sale, it would likely serve to mitigate the potential significant adverse socioeconomic impact of the proposed medallion sale.

1.2.3 Community Facilities and Services

The proposed increase in the number of taxicab medallions would not add new residential units that would increase local demand for community facilities and services and is not likely to directly displace any community facilities or services. What is more, the increase in medallion ownership is not anticipated to result in new taxi facility construction that would potentially have indirect impacts on community facilities. Taxi garages are usually located within existing light industrial zones where community facilities are generally absent. No significant adverse community facilities and services impacts are anticipated as a result of the action.

1.2.4 Open Space

The proposed action is not expected to result in direct or indirect open space impacts. The proposed action does not displace, damage or alter existing open space resources, nor does the action limit or affect the public's use of any open space resource in New York City. Further, the action would not change user levels of existing open space resource

and it is unlikely that the proposed action would diminish the ability of any open space resource to serve current or future populations.

1.2.5 Shadows

No significant impacts from shadows will occur as a result of the proposed action. The proposed action would result in taxi service changes, but would not typically result in any new construction that could cast shadows on public open spaces, historic resources, or visual resources.

1.2.6 Historic Resources

The proposed action is not expected to involve any construction activity that would impair existing historic or architectural structures or result in an in-ground disturbance that could affect archaeological resources. Therefore, the proposed action is not anticipated to have significant~~ly~~ ~~affect~~ adverse impacts on historic resources in New York City.

1.2.7 Urban Design/Visual Resources

The proposed action would result in taxi service changes in New York City, but is not anticipated to result in new taxi garage construction. Individual medallion holders would lease garage space or park at home, while corporate leaseholders, in general, already operate fleet garages or lease parking lots. Further, taxi garages and parking lots tend to be located in light industrial zones (e.g. Long Island City, Red Hook) where there is neither a consistent or cohesive urban design sense nor significant visual resources. Therefore, no significant adverse urban design or visual resources impacts are expected as a result of the proposed action.

1.2.8 Neighborhood Character

The proposed action is not expected to have a significant impact on any of the areas that comprise neighborhood character: land use, urban design, visual and historic resources, socioeconomics, traffic and noise. Therefore, the proposed action is not anticipated to have significant adverse neighborhood character impacts.

1.2.9 Natural Resources

The proposed action would alter the provision of taxicab services and increase taxi volumes, but would not likely result in any new construction that could impact natural resources. The areas of New York City in which taxicab garages are located have been extensively developed, with few, if any, properties returning to their natural state. No significant adverse impacts to natural resource are thus anticipated as a result of the proposed action.

1.2.10 Hazardous Materials

The proposed action would not result in elevated levels of hazardous materials, increased pathways to exposures of hazardous materials or new activities using hazardous materials. Therefore, no significant hazardous materials impacts are anticipated as a result of the proposed action.

1.2.11 Waterfront Revitalization Program

The proposed action is unlikely to induce the development of additional garages that could potentially be located within New York City's coastal zone boundaries. Hence, no significant impacts are anticipated from the proposed action and no assessment of consistency with the City's Local Waterfront Revitalization Program is necessary.

1.2.12 Infrastructure

The proposed action will not substantially impact the city's water supply, wastewater treatment or stormwater management systems. The changes to taxi service and increased taxi volumes would not likely cause any changes in the provision of infrastructure services, nor would it affect infrastructure demand levels. No significant infrastructure impacts are expected as a result of the proposed action.

1.2.13 Solid Waste and Sanitation

The proposed action would only result in changes to taxi service and volumes, and so would not likely have an impact waste generation levels. The proposed action would also not likely cause any changes in the provision of waste disposal services. Therefore, no significant adverse impacts to solid waste or sanitation service are anticipated as a result of the proposed action.

1.2.14 Energy

As part of the proposed action the number of new taxi medallions would increase by 300 a year over a three-year period starting in the fiscal year ending June 30, 2004. While this would result in 900 total new vehicles on New York City's street network, as taxicab shifts are staggered over 24 hours, only a portion of the 900 medallions would be on the streets at any point in time. Moreover, 900 total additional taxicabs is a small number relative to the total of vehicles on the City's streets in any peak hour and would not be considered to increase VMT significantly. No significant adverse energy impacts are thus anticipated as a result of the proposed action and no further assessment of potential energy impacts is considered warranted.

1.2.15 Traffic and Parking

The potential impact of additional medallion taxis in New York City was one of three critical issues (the others being air quality and socioeconomic conditions) analyzed during the preparation of this EIS. The analysis of traffic conditions was a precursor to the air quality section, as well as providing an estimate of the impacts upon traffic circulation in the study area.

Selection of Study Area

While there are numerous locations throughout New York City (particularly in Manhattan) where taxicabs operate and where congestion occurs, it was necessary to select a representative sample of locations that would likely be significantly affected. Upon review, the following five locations were selected for traffic and/or air quality analysis:

- *Broadway/Columbus Avenue/West 65th Street*
- *Third Avenue/East 57th Street*
- *Fifth Avenue/42nd Street*
- *Broadway/Sixth Avenue/West 34th Street*
- *Eighth Avenue/West 42nd Street*

In addition, intersections located within a 1,000-foot radius of the five key study intersections noted above were selected for traffic analysis, and to provide a basis for the air quality analysis.

Selection of Peak Hours

Manual turning movement counts, in conjunction with the ATR counts, were used to develop the existing traffic flow networks for the AM and PM peak hours. Based on the manual turning movement counts and ATR counts, the weekday AM peak hour was found to occur between 7:45 a.m. and 8:45 a.m. and the weekday PM peak hour was found to occur from 5:00 p.m. to 6:00 p.m.

Projected Traffic Impacts

A comparison of the no-build and build delays and levels-of-service reveals that under build conditions, significant traffic impacts (according to the *CEQR* criteria stated above) are projected to occur at the study intersections. Significant impacts are projected to occur in each phase of the medallion sale, starting with the first sale of 300 medallions in 2004. However, most of the impacted lane groups and/or approaches at the study intersections are projected to be mitigated by reallocating ~~of~~ one second of green time and are presented in Appendix B. The impacted lane groups and/or approaches at the study intersections that require more than one second of green time to be reallocated, or require other mitigations measures, are listed below:

3rd Avenue/East 57th Street Study Area

- 3rd Avenue/East 56th Street

5th Avenue/42nd Street Study Area

- 5th Avenue/42nd Street
- Madison Avenue/East 42nd Street

Broadway/6th Avenue/West 34th Street Study Area

- 6th Avenue/West 30th Street
- 6th Avenue/West 33rd Street

The proposed project is not expected to have significant impacts on on-street or off-street parking. Parking of taxicabs would be absorbed by additional space available at taxi garages and lots and other current means of parking already established for taxicabs.

1.2.16 Transit and Pedestrians

According to the *CEQR Technical Manual*, if a proposed action is projected to result in fewer than 200 peak hour transit trips a transit assessment is generally not warranted. And, if an action would result in residential or office projects that are less than 50 percent of the levels identified in Table 3O-1 a detailed pedestrian assessment is usually not required. Neither of these thresholds would be exceeded as part of the proposed action and no significant adverse transit or pedestrian impacts are likely to occur.

1.2.17 Air Quality

The study area is located in New York City, an area with the following current designations:

- Severe non-attainment for ozone.
- CO maintenance area.
- Partially non-attainment for PM_{10} (New York County).
- Attainment for all other criteria pollutants

Modeled Intersections and Receptor Locations

A total of five receptor sites were selected for CO impact analyses:

- Site 1: Broadway/Columbus Avenue/65th Street.
- Site 2: Third Avenue/57th Street.
- Site 3: Fifth Avenue/ 42nd Street.
- Site 4: Broadway/Sixth Avenue/34th Street.
- Site 5: 42nd Street/Eighth Avenue.

Predicted 8-hour CO concentration levels following implementation of the proposed action at the study intersections indicate that the 8-hour CO levels would be the same or slightly higher than under the No Action Condition. These results show no violations of either the 8-hour CO standard of 9 ppm or the CEQR de minimis criteria for any of the modeled intersections after the final 300 of the 900 total medallions are sold in 2006. Therefore, no significant air quality impacts are anticipated from the sale of 300 medallions in the years 2004, 2005 and 2006.

1.2.18 Noise

The proposed 900 additional taxicab medallions represent an approximate total increase of only 7 percent over the current number of licensed taxis in New York City. It is

unlikely that such an increase in the number of taxicab would double PCEs along any of the studied taxi routes. The 900 additional taxicabs would be driven in shifts staggered over a 24 hour time-period and a majority of those operating at any point in time would be spread out across Midtown and other sections of Manhattan. The proposed action is not expected to have any significant noise impacts in New York City.

1.2.19 Construction Impacts

The action does not involve construction and no induced construction is expected as a result of the proposed action. Hence, the action is not anticipated to cause significant adverse construction impacts.

1.2.20 Public Health

The increase in vehicular traffic, related to the proposed action, is not expected to result in significant adverse air quality impacts. The types of engines and fuel used by taxicabs engines are not considered major contributors to particulate matter (PM_{10} and $PM_{2.5}$) and carbon monoxide levels in the future with the action are still expected to be in conformance with the City's attainment status. Thus, no significant adverse public health impacts are anticipated as a result of the proposed action.

2.0 DESCRIPTION OF THE PROPOSED ACTION

The TLC is considering the issuance through the sale, by public auction or other competitive method, of up to 900 additional New York City taxicab medallions. It is contemplated that these medallions will be issued in equal numbers over a three-year period commencing in fiscal Year 2004. The TLC is proposing that the first 300 medallions will be issued for sale in the fiscal year ending June 30, 2004, followed by an additional 300 issued for sale in the fiscal year ending June 30, 2005 and the remaining 300 medallions issued for sale in the fiscal year ending June 30, 2006. The TLC may limit the sale of medallions after the first sale of 300 medallions 2004, or after the second sale of 300 medallions in 2005. If all 900 medallions are sold by the year 2006, it would bring the total amount of taxicab medallions in New York City to 13,087.

As part of the proposed action, the City Council has mandated in Local Law No. 51 of 2003 that the Taxi and Limousine Commission (TLC) restrict up to 9 percent of the 300 medallions sold in 2003-04, 2004-05 and 2005-06 to wheelchair accessible vehicles and vehicles that run on compressed natural gas (CNG) or hybrid vehicles, if these vehicles can achieve a bid price that is at least ninety percent (90%) of the average price achieved for unrestricted medallions. If these restricted medallions are sold, there would be at least 81 taxicab medallions that are restricted to wheelchair accessible vehicles and 81 taxicab medallions that are restricted to CNG or hybrid vehicles.

2.1 PURPOSE AND NEED FOR THE PROPOSED ACTION

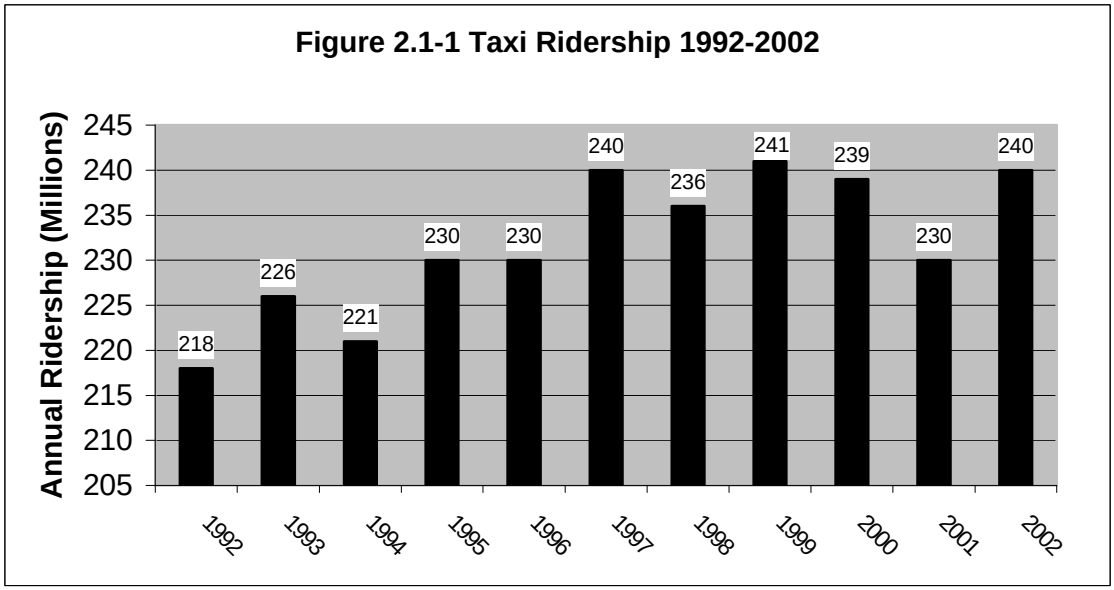
Taxicabs provide a form of demand-responsive transportation within the City of New York and are the only vehicles authorized by law to accept hails from passengers in the street and to serve taxi stands located at hotels, commercials areas, or transportation centers. From the early 1940s until 1996, the number of taxicabs was fixed at 11,787. In 1996 and 1997 the City issued 400 additional taxicab medallions. Inasmuch as the demand for service has been increasing in recent years, the TLC is proposing to further improve taxi service for patrons through the issuance of additional taxi medallions. Securing a cab during morning and evening rush hours, late evenings and inclement weather may be very difficult. The objective of the proposed action is to increase the numbers of taxicabs available to serve the public and thereby improve service and availability.

Taxicabs fill a vital niche in the menu of transportation alternatives available to residents, commuters and visitors of New York City. The TLC estimates that approximately 240 million passengers each year use taxicabs. In a city where a significant portion of the population does not own a private automobile, many people depend on the commercial and public systems that are in place to provide transportation options. Public transit facilities, including bus routes, can provide services that are adequate for the routine trip. However, for door-to-door service, late night convenience or moving with heavy packages, there is no substitute for the taxicab.

Given the absolutely critical role that taxicabs play in moving New Yorkers, there may be a demonstrated need for increasing the number of taxis on the street. At a certain point, however, the negative impacts of taxis can outweigh the benefits of having additional cabs available. Cruising taxis can contribute to midtown traffic congestion and result in a degradation of air quality. In addition, the issuance of too many medallions can hurt those that already hold them by reducing the value of their asset and by making it more difficult to get fares during periods of lower demand. Thus, a major historical part of taxicab regulation has been an effort to balance the positive and negative aspects of issuing new taxi medallions.

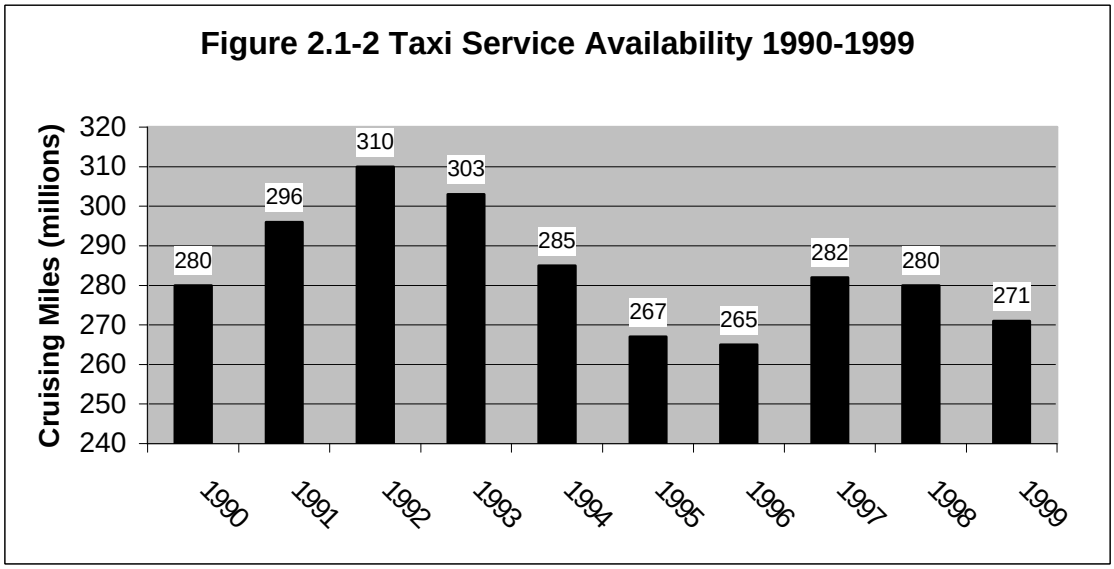
Although there have been a number of initiatives to increase the number of taxi medallions over the last several decades, the actual increase has been relatively modest. According to the New York City Taxi and Limousine Commission (TLC) figures in the early 1980s, there were 11,787 medallions issued – a number that had remained static over the previous fifty years. Almost twenty years later, the TLC cites the number of medallions at a number only 400 higher (12,187), representing a 3 percent increase. This increase was the result of an issuance of 400 new taxicab licenses in 1996 and 1997.

Compared to the modest rise in taxi medallions, ridership levels have spiraled upwards. In 1992, taxicabs carried 218 million annual passengers in New York City. By comparison, taxicabs carried 240 million annual passengers in 2002, a growth of 22 million annual passengers over 10 years (see Figure 2.1-1). While ridership levels briefly fell 4 percent in 2001 following the events of September 11th, taxi ridership losses were recouped in 2002. Ridership levels for taxicabs have remained at a high level despite the post-boom and post 9/11 slowing economy of New York City.



Source: *The New York City Taxicab Fact Book*, Schaller Consulting, September 2003

Rising taxicab ridership over the past ten years may have led to a drop in taxicab service availability in the City. Service availability is the measure of miles available cabs expend cruising for passengers. As seen in Figure 2.1-2, since taxicab availability peaked in 1992 at 310 million total miles, it has decreased 13 percent to 271 million total miles in 1999. This trend was only reversed slightly in 1997 when the last issuance of new taxicab medallions occurred.



Source: *The New York City Taxicab Fact Book*, Schaller Consulting, September 2003

As ridership levels have maintained their high levels through 2002 (see Figure 2.1-1), it can be concluded that the demand for taxis has also sustained through 2002.

The increase in demand for taxicabs outpaced the supply, particularly during hours of peak demand. A taxicab occupancy survey completed by the TLC in the summer of 2002 found that during peak hours, particularly the morning and evening rush hours, most taxicabs on the streets were occupied, and at times, it was difficult to obtain cabs.

Another potential measure of taxicab demand is the amount of illegal hails of for-hire cars that are not allowed to cruise for passengers. A high number of illegal street hails could also demonstrate that the current supply of taxicabs is not meeting the level of demand for taxi service in the City. The TLC reported issuing in excess of 3,000 street hail summonses during 2002. Most of these were issued in the central business district. A study of illegal street hails in Manhattan completed in 2001 by the Taxi Policy Institute, also found that in Manhattan illegal street hails by for-hire vehicles was a common occurrence.

History of the Taxicab Industry

In 1937, The New York City Board of Alderman enacted an ordinance that capped the number of taxi licenses in New York City at 13,566. This act, known as the Haas Act, was in response to the perceived oversupply of cab service in New York. During the 1920s and 1930s the number of taxicabs on City streets was rising quickly, with total taxis reaching near 40,000. The taxi business was an unregulated cash-based business that offered easy-entry to those looking for work. As a result, the excessive number of taxis on the streets led to a number of problems including traffic congestion, high accident rates, inadequate insurance coverage, aggressive fare cutting and low driver wages.

The Haas Act was successful in achieving its aim of controlling the number of taxicabs operating in New York City. The limiting of the number of licensed taxicabs or medallions, coupled with a state law provision that permitted medallions to be transferred, also established the financial value of the medallion. The financial value of the medallion was not realized at first, but after the Second World War, the City's economy began growing and the worth of the taxicab medallion began to increase and by 1947 the average price of a medallion was $2,500.

The value of the medallion continued to increase through the 1950s and 1960s concomitant with the rising demand for taxi service in the same period. By the end of the 1960s the average medallion price was approximately $25,000, ten times more than its average value in 1947. Despite the growing demand for taxi service and the increased value of medallions, the number of taxicab medallions in New York City remained the same. Up until 1971, the Police Department Bureau of Licenses (Hack Bureau) was the government agency with the authority to regulate the taxicab industry. Only the City Council, however, could add more medallions. The issuance of additional medallions was contingent on an evaluation of the City's need for more taxi service. The Hack Bureau carried out periodic reviews of the number of medallions, each time concluding that additional taxi medallions were not needed.

In 1971, City Council legislation (Local Law No. 12) created the Taxi and Limousine Commission with the responsibility to regulate and improve taxi and limousine service in New York City and to establish overall transportation policy to govern these services. The Commission's responsibilities include establishing qualifications for and licensing drivers; monitoring and supervising service quality, including adopting regulations to further this goal; investigating passenger complaints and taking enforcement action; establishing and reviewing fares; insuring safety through vehicle inspections; and exercising managerial and administrative responsibilities. In 1986, Local Law No. 76 was enacted to give the TLC authority over all "for-hire vehicles" in New York City, which includes non-medallion livery vehicles, drivers and bases.

The limited number of medallion and its worth as a commodity does not necessarily guarantee the medallion will increase in value in the future. Following the downturn of the city's economy in the 1970s, the value of taxicab medallions decreased and taxi fleets began to sell off their medallions. In order to buy the medallions individual taxi drivers paired up as partners, incorporated and formed "minifleets" with each owner driving a cab. In 1979, The TLC began to allow the practice of leasing cabs to drivers. This allowed minifleet operators to lease out their cab for shifts. Over time, some minifleet operators began buying up other minifleet medallions and leasing cabs under long-term arrangements. Presently approximately two-thirds of taxicabs are leased and one-third are owner-operated cabs that are operated by the medallion holder. Approximately forty percent of all taxicabs are owned by fleets and leased by the shift.

Throughout most of the second half of the 20th Century, the number of taxicab medallions in New York City remained at 11,787. In 1987, the City Council approved legislation that would permit the TLC to issue up to 1,800 additional medallions. An Environmental

Impact Statement (EIS) was completed and concluded that to be in compliance with clean air regulations, only up to 433 medallions could be issued by the City. The TLC initially rejected the proposed regulation to issue an additional 400 taxicab medallions. However, the City in the early 1990s gained State approval to issue the 400 medallions and bring the total number of taxicab medallions to 12,187. The 400 additional medallions were auctioned between 1996 and 1997 and raised $85 million for New York City.

Despite the increase in the number of taxicab medallions in 1996-97, the number of taxicab medallions is still considered insufficient in New York City. An attempt to hail a taxicab during rush hour, in inclement weather or late at night can be difficult. In order to improve taxicab service and help meet the growing demand for taxis, the sale of 900 additional medallions has been proposed. The sale would be executed in three phases, with 300 taxicab medallions sold in fiscal year ending June 30, 2004, 300 sold in 2004-05 and 300 sold in 2005-06. With the average price for taxicab medallions now in excess of $200,000, the proposed sale of the 900 additional taxicab medallions (the proposed action and subject of this Environmental Impact Statement) could potentially raise a total of $195,000,000 for the City of New York.

2.2 REQUIRED PUBLIC APPROVALS

The proposed action is subject to the regulations under City Environmental Quality Review (CEQR). Under the State Environmental Quality Review Act (SEQRA) and its implementing regulations set forth in Title 6 of the New York Codes, Rules and Regulations (6 NYCRR) Part 617, State and local government agencies must complete a review of the possible environmental impacts before undertaking, funding or approving any discretionary actions. Further, local governments ~~agencies~~ are permitted to promulgate their ~~its~~ own environmental rules, provided the rules are no less protective of the environment than the State regulations. The City of New York has established CEQR as the process through which ~~that~~ agencies of New York City use to review discretionary actions for the purpose of identifying the potential effects on the environment.

Under CEQR, city agencies must assess disclose and mitigate the environmental consequences of any discretionary action that the agency funds, undertakes, or approves. Actions determined not to have a significant impact on the environment, or Type II actions as promulgated by 6 NYCRR Part 617.5 ~~of the State Environmental Quality Review Act~~, are not subject to environmental review. Actions that are subject to environmental review are Type I actions and Unlisted actions. Type I actions are those actions that are listed in 6 NYCRR Part 617.4 of the State Environmental Quality Review

and are presumed to have a significant effect on the environment. Unlisted actions are all other actions not listed as Type I or Type II.

The proposed action does not fit any of the specific categories listed as Type I actions in 6 NYCRR Part 617.4 ~~of the State Environmental Quality Review~~, and is therefore an Unlisted action. However, the sale of the 900 taxicab medallions may have significant impact environmental impacts in New York City. The addition of 900 medallions could indirectly affect the socioeconomic conditions of the City by having an impact on the taxicab industry. As the proposed action would increase the supply of medallions, it may affect the asset or resale value of existing medallions. The proposed sale of 900 medallions could have an impact on air quality as the addition of 900 vehicles could affect carbon monoxide levels in the City. And, the addition of 900 taxicabs could affect the already congested traffic conditions in New York City. Therefore, the proposed action warrants the completion of an Environmental Impact Statement. The number of licensed taxicabs permitted in New York City is fixed by Local Law. While the City Council has the authority to increase the number of medallions, State approval is required to sell additional medallions for a price that exceeds the administrative cost of issuing a license. In the spring of 2003, the State Legislature authorized the TLC to sell up to 900 additional taxicab medallions. The City Council also passed ~~a~~ Local Law 51 of 2002 (Local Law 51) authorizing the same number of medallions to be sold, subject to compliance with all environmental regulations. This Local Law also authorizes the TLC to promulgate regulations governing the sale of these medallions.

In 1996, the TLC promulgated rules governing the sale of 400 additional medallions that were permitted to be issued at that time. The TLC plans to amend these regulations, in part, to set forth procedures for the issuance of the 900 medallions authorized by State and Local Law. These regulations ~~must also~~ will describe the procedures for issuing alternative fuel and wheelchair accessible medallions, as ~~may be~~ required by Local Law. These rules will govern the conduct of the various auctions for the sale of taxicab medallions that will occur during the next three fiscal years.

This ~~environmental assessment~~ EIS has been prepared to assist and guide the decision makers in reaching their conclusions and to ensure that they have a full understanding of the environmental consequences of the proposed action and its alternatives. The ~~regulations~~ EIS is intended to permit the analysis of environmental factors and to clarify social and environmental issues in the early planning and decision-making stage of major projects. This ~~assessment~~ EIS provides a way to systematically consider environmental effects along with other aspects of project planning and design.

3.0 EXISTING CONDITIONS AND PROBABLE IMPACTS

3.1 LAND USE, ZONING, AND PUBLIC POLICY

The *CEQR Technical Manual* recommends that a proposed action be assessed in relation to land use, zoning and public policy. For each of these areas, a determination is made of the potential for significant impact by the proposed action. If the action does have a potentially significant impact, appropriate analytical steps are taken to evaluate the nature of the impact, possible alternatives and possible mitigation.

TLC ~~The Taxi and Limousine Commission~~ has the responsibility to regulate and improve taxi and limousine service in New York City and to establish overall transportation policy to govern these services. To improve taxi service, the TLC is proposing as part of the proposed action, to increase the number of medallions by 900 over the next three years, starting with an initial sale of 300 medallions in the fiscal year ending June 30, 2004. The TLC may elect not to sell additional medallions after either the first sale of 300 medallions in 2004 or after the second sale of 300 medallions in 2005.

No significant land use, zoning and public policy impacts are expected as a result of this action. As discussed above, the action would not affect existing land use in the City and it would not conflict with current City zoning regulations and public policy. No land use, zoning, or public policy assessments are necessary as a result of the proposed action.

3.2 SOCIOECONOMIC CONDITIONS

According to the *CEQR Technical Manual*, socioeconomic impacts may occur when an action would directly or indirectly change population, housing stock, or economic activities in an area. A socioeconomic analysis should be conducted if an action may be reasonably expected to create substantial socioeconomic changes within the area affected by the action that would not be expected to occur absent the action. The following are circumstances that would typically require a socioeconomic assessment:

- An action that would directly displace a residential population so that the socioeconomic profile of the neighborhood would be substantially altered;
- An action that would directly displace substantial numbers of businesses or employees; or one business or institution that is either integral to the community for its social or economic role or particularly important to neighborhood character, or is unusually difficult to relocate successfully;
- An action that would result in substantial new development that is markedly different from existing uses, development or activities within the neighborhood. Such an action could lead to indirect displacement, however residential developments of 200 units or less or commercial development of 200,000 square feet or less would typically not result in significant socioeconomic impacts;
- An action that would affect conditions in the real estate market, not only within the site but indirectly in the larger area;
- An action that would adversely affect economic conditions of a specific industry.

To improve taxi service, the New York City Taxi and Limousine Commission is proposing to increase the number of taxicab medallions by 900 over the next three years, starting with an initial sale of 300 medallions in the fiscal year ending June 30, 2004. The TLC may choose to halt the sale of medallions after the first sale of 300 medallions 2004 or after the second sale of 300 medallions in 2005. As part of the proposed action, a screening analysis was performed following the criteria set forth above.

While the proposed action does not meet most of the conditions that would require a detailed socioeconomic assessment, the proposed action does have the potential to adversely affect economic conditions of a specific industry. Taxicab medallions are a valuable commodity and the supply of medallions has purposely been restricted in New York City. Changing the amount of medallions available could potentially affect the economic stability of the taxicab industry. In fact, increasing the number of taxicab

medallions is given as an example in the CEQR Technical Manual as an action that may adversely affect economic conditions in a specific industry. Furthermore, during the period of time during which the proposed action would be completed, taxicab fares could be increased by an amount still to be determined, particularly in light of the two petitions for fare increases the TLC has received from taxi industry groups. Raising the fare of taxicabs potentially alters the dynamic between taxi demand and supply, which could affect the taxicab industry. As such, the socioeconomic effect of a possible taxicab fare increase which might occur during the period when the proposed medallion sale is occurring has been studied as a potential mitigating scenario under the future action condition.

3.2.1 Assessment Of The Effect Of Proposed Action On Taxicab Industry

The following assessment is based on a detailed analysis of the socioeconomic impact of the proposed medallion sale in light of the general economic conditions that may affect the medallion taxicab industry, including, but not limited to, changes in interest rates, the demand for taxicab service, the regulatory environment within the taxicab industry, and revenue to the industry based upon either current conditions or the possibility of a future fare increase.

3.2.1 Existing Conditions

There are currently 12,187 New York City taxicab medallions, operated by fleets, minifleets, lease managers, and owner-drivers, transporting about 240 million annual passengers throughout New York City. This volume of approximately 171 million trips, generates nearly $1.5 billion in revenues and engages some 35,000 people who serve the taxicab industry as drivers, owners, brokers, mechanics, and employees of support businesses like credit unions, insurance companies, and taximeter shops. The operations of the taxi industry are overseen by a regulatory body known as the New York City Taxi and Limousine Commission, which also licenses and regulates the non-medallion For-Hire Vehicle industry (vehicles that accept passengers exclusively by pre-arrangement).

Originally, taxi licenses lacked monetary value. However, as demand for taxi service grew after World War II, medallions began to trade at an average of $2,500. Their prices have continued to grow, with occasional declines in value corresponding to industry-specific or general economic forces. At the most basic level, medallion prices reflect the ability of their owners to derive revenue from taxi operations, through driving or leasing the right to drive. Factors which impact medallion value include fares, interest rates, the

availability of taxicab medallion financing, the demand for taxi service, the availability of drivers, the market for medallions, and industry expectations. The peak year for medallion prices was 1998, when corporate medallions values peaked at $300,000 and individual medallions peaked at $275,000.

Taxi fares are both the primary source of revenue for drivers. Owner operators derive their income from fares, while other taxicab owners derive their income primarily from lease fees charged drivers. For lease drivers, income is derived from deducting expenses, primarily lease fees and gasoline, from fare and tip revenue received. With the exception of the flat fare charged from JFK to Manhattan, which was increased to $35 in 2001, taxi fares have remained constant since 1996. Currently, meters installed in taxis determine fares based on an initial charge of $2.00, mileage charges of $0.30 per 1/5 mile and $.20 per 60 seconds or $.30 per 90 seconds of "waiting time," and a night surcharge of $0.50. Passenger tips generally add between 15 and 20 percent to the fare.

3.2.2 Future No Action Condition

A baseline for revenue growth in the taxi industry and economic development of New York City without the proposed action was developed to represent the Future No Action condition. The baseline forecast consists of an econometric projection of total revenue and trip levels without a medallion sale over the 2004-2007 time period, using a consistent rate of fare, based upon the expected growth of the New York City economy.

Without a medallion sale, aggregate industry revenues are projected to increase modestly over the next four years, from $1.465 billion in 2003 to $1.532 billion by 2007. Trips may expand as the economy improves and taxicabs are seen as a favorable alternative to mass transit. Medallion values would be expected to rise to $261,000 by 2007 in a climate of favorable financing.

3.2.3 Future Action Condition

The socioeconomic impacts of the Future Action condition are expressed as differences with respect to the Future No Action condition. The Future Action condition reflects the econometric results of modeling elasticity responses to medallion sales, as well as the macroeconomic results of modeling multiple rounds of spending changes in the New York City economy. Built into this model are possible scenarios that reflect a consistent, as well as, a changed rate of fare. These outcomes are evaluated from two perspectives: first, the impact of a medallion sale without any rate of fare increase on the taxicab

industry during the period of the sale; and second, the impact of a medallion sale with possible fare increases, equivalent to those suggested in current petitions filed by industry groups with the TLC, upon the taxicab industry.

REMI Policy Insight Model

The socioeconomic analysis utilized the REMI Policy Insight Model, which is a structural and dynamic computer model that has been customized by Regional Economic Models, Inc. (REMI) to replicate the existing and likely future socio-economic conditions of New York City. Changes in the REMI Model can be directly simulated by policy or project initiatives, by altered interactions between regional and national economies, by shifts in technology or expenditure patterns, by impacts on costs of doing business or consumer spending power. The proposed medallion sale and the mitigating scenarios that include two suggested rate of fare increases were simulated in the New York City REMI Model as separate scenarios under the assumption that taxi industry and taxi rider ship behavior will change if medallion sales and/or if fare increases are approved:

- Proposed Action Scenario: No fare increase but the sale of 300 medallions in each of three years, 2004, 2005 and 2006.
- Potential Mitigating Scenario #1: The imposition of a 23.4% fare increase in 2004, with the sale of 300 medallions in each of three years, 2004, 2005 and 2006.
- Potential Mitigating Scenario #2: The imposition of a 44.2% fare increase in 2004, with the sale of 300 medallions in each of three years, 2004, 2005 and 2006.

3.2.3.1 Econometric Results for the Taxi Industry Under the Proposed Action Scenario

The results of the simulation suggest that the proposed increase in medallions would have a significant impact on the taxicab industry in New York City. Under the no action condition, medallion values are expected to rise from a value of $239,000 in 2003 to $261,000 by the year 2007, and increase of approximately 9.2% during this period. In contrast, under the future action condition, medallion values are expected to decrease modestly from a value of $239,000 in 2003 to $232,000 in 2007. In contrast, if the TLC chooses to limit the medallion sale to 300 sold in 2004, the value of medallions could decrease to $232,000. If an additional 300 are sold in 2005, medallion values could decrease to $229,000. And, if the final 300 medallions are sold in 2006, medallion values may further decrease to $226,000. In the year 2007, medallions are expected to recover

slightly back to a value of $232,000, but still substantially lower than the projected future no-action value of $261,000.

These values could change, depending upon external conditions within the industry, particularly interest rates and the availability of financing. Since mid-2001, medallion prices have increased by approximately 25%. The lowering of interest rates for medallion financing from in excess of nine percent (9%) per year, to approximately 6.25% per year has been a significant factor in supporting the price of the medallion. Continued low interest rates would affect this econometric model, as would an increase in interest rates or other restrictions on medallion financing, or the availability of credit in the future.

3.2.3.2 Econometric Results for the Taxi Industry Under the Proposed Mitigating Scenarios

Taxicab industry groups have petitioned the TLC to increase cab fares in actions which are separate and apart from the proposed medallion sale, but which could occur prior to the completion of the proposed action. Fare increase petitions are reviewed by the TLC's Board of Commissioners, utilizing factors set forth in the City Charter, which include industry income and expenditures, return on investment, drivers' and owners' incomes, fares for competing modes of transportation, and fares for equivalent taxicab service in other cities. The burden of demonstrating the need for a fare increase lies with the group making the request. If a fare increase were approved, it could occur within the period wherein the proposed action would be completed. Raising the fare of taxicabs alters the dynamic between taxi demand and supply and if it occurred during the same time as the medallion sale, it would likely serve to mitigate any potential adverse socioeconomic impact of the proposed medallion sale.

Impact of Fare Increase with Medallion Sale on the Taxi Industry

A 23.4 percent fare hike will cause aggregate taxi industry revenues to rise by 18.5 percent in 2004, while trips will decline by 4 percent. A higher fare increase of 44.2 percent will likely expand 2004 revenues by 33.8 percent but cause trips to decline by 7.2 percent. Subsequent year revenue gains will be marginal, in the order of 1 percent annually under each fare increase alternative, while trip volumes will recover to 2003 levels by 2007 only under the lower fare rate assumption of 23.4 percent.

The alternative fare rate increases, accompanied by the sale of 900 medallions over the 2004-2006 period, will understandably have the greatest impact on medallion values at the highest fare level. With a 44.2 percent fare increase, the average price of corporate

and individual medallions is projected to rise from $239,000 in 2003 to $279,000 in 2004, where it will return by 2007 after dipping slightly in the intervening years. By contrast, a 23.4 percent fare rise will result in anticipated medallion values to $258,000. These values compare to a no-action condition in which medallion values are expected to rise to $261,000 by 2007, without a fare increase.

The potential mitigating scenarios that have proposed fare increases combined with a medallion sale are not anticipated to have a significant adverse impact on the taxicab industry. Under each mitigating scenario, taxi industry revenues increase in comparison to the Future No Action Scenario. Trip volumes decrease under each mitigating fare increase scenario but, the greatest decrease is only 7.8 percent under the highest fare increase mitigating scenario (44.2% fare increase). If a fare increase accompanies the proposed action, under a 23.4 percent fare increase scenario, trip volumes would decrease slightly from 171,540,000 in 2003 to 171,150,000 by the year 2007. Under the 44.2 percent fare increase scenario, taxi volumes would decrease from 171,540,000 trips in 2003 to 165,360,000 taxi trips in 2007. If no fare increase accompanies the medallion sale, trip volumes are expected to increase to 179,350,000 trips by the year 2007.

The potential effect of this decrease in trips under the 44.2 percent fare increase would be off-set by the projected 33 percent rise in revenue under this scenario. And, in light of the steadily increasing number of taxi trips over the past decade (see Figure 2.1-1), it would be expected that the decrease in trip volumes under the 44.2 percent fare increase mitigating scenario would be recovered in a relatively short period. Under the 23.4 percent fare increase mitigating scenario trip volumes would nearly recover 2003 volumes by 2007.

With regard to Medallion values, each of the fare increase mitigating scenarios would change the value of taxicab medallions compared to the Future No Action condition. In the year 2007, medallion values are projected to increase to $261,000 if no fare increase or medallion sale were implemented. In comparison, under the 44.2 percent fare increase mitigating scenario the value of a taxicab medallion would increase to $279,000 by the year 2007. Under the 23.4 percent fare increase mitigating scenario the value of a medallion would increase to $258,000 by 2007, short of the $261,000 medallion value projected by 2007 as part of the Future No Action Scenario. However, while medallion values under the 23.4 percent fare increase mitigating scenario is not projected to increase to the medallion value under the Future No Action scenario, it is not likely that this would have a significant adverse impact on the taxi industry. The difference between medallion values under the Future No Action scenario and medallion values under the 23.4 percent fare increase mitigating scenarios is 1.15 percent. This relatively small

difference combined with the fact that medallion values have historically fluctuated, given other factors, such as the overall economy, the availability of credit, interest rates, and the number of available drivers which also affect medallion prices make it unlikely that the 23.4 percent increase would have a negative impact on the taxi industry.

Should medallion owners and taxi drivers share the revenues generated by a fare increase in the manner in which such gains were distributed over the 1996-1999 period, following a 20 percent fare hike in March 1996, it is expected that drivers would see an increase in their average hourly wage. In 2003, taxi drivers made a average wage of $13.50 per hour. If the medallion sale is accompanied by a 23.4 percent fare increase, hourly driver wage is expected to rise to $18 on average. A higher fare increase of 44.2 percent would likely raise hourly wages to $22 on average. By contrast, if no fare increase accompanies the medallion sale, drivers would likely see their hourly wage increase modestly to $14 on average.

The most neutral action of the mitigating scenarios studied would be a fare increase in the mid-twenty percent range combined with the medallion sale. This would increase industry revenues by roughly one-quarter billion dollars per year, maintain medallion values with respect to a no action condition, and maintain trip volume at existing levels within four years, after an initial reduction.

3.3 COMMUNITY FACILITIES AND SERVICES

Community facilities and services include publicly funded facilities, such as schools, hospitals, libraries, day care centers, and services such as fire and police protection. CEQR guidelines require a lead agency to examine the effect of a proposed action on the provision of services provided by the facilities. A proposed action could cause a significant impact if it physically displaces a community facility, or significantly changes the population served by a community facility.

According to the *CEQR Technical Manual*, actions that would add fewer than 100 residential units to an area generally do not have to be assessed for possible impacts on community facilities. The exception to this guideline is if the proposed action directly displaces or has a direct effect on a community facility.

As part of the proposed action, 900 total taxicab medallions would be issued for sale over a three-year period, with the first 300 medallions offered in the fiscal year ending June, 30 2004. The increase in the number of taxicab medallions ~~and the proposed related increase in taxicab fares~~ would not add any new residential units that would increase local demand for community facilities and services and is not likely to directly displace any community facilities or services. What is more, the increase in medallion ownership is not anticipated to result in new taxi facility construction that would potentially have indirect impacts on community facilities. Corporate leaseholders that would purchase the new medallions likely also operate fleet garages and would be able to accommodate the additional taxis at the garages, while individual medallion holders would lease garage space or park at home. Taxi garages are usually located within existing light industrial zones where community facilities are generally absent.

The proposed action is not likely to result in direct or indirect adverse impacts on existing community facilities or those facilities' ability to deliver their services.

3.4 OPEN SPACE

Under CEQR, an open space analysis considers whether or not a proposed action would directly or indirectly impact open space resources. Direct effects include publicly accessible open space being physically lost or displaced, changed with regard to its usage, limited to the public or significantly affected by noise and air pollution, odors, or shadows. Indirect effects occur if the action changes the total population of an area and noticeably diminishes the ability of the open space to serve the current or future population. The proposed action would not result in any alterations to public open space or recreational opportunities in any area of the City.

The proposed action is not expected to result in direct or indirect open space impacts. The proposed action does not displace, damage or alter existing open space resources, nor does the action limit or affect the public's use of any open space resource in New York City. Further, the action would not change user levels of existing open space resource and it is unlikely that the proposed action would diminish the ability of any open space resource to serve current or future populations.

No significant open space impacts are expected as a result of this action and no further assessment of open space impacts are considered necessary.

3.5 SHADOWS

Shadows cast by newly constructed buildings or structures can have potentially adverse impacts in a particular area or surrounding areas, particularly if the area is light-sensitive or light-dependent. An analysis of shadow impacts is necessary to determine the impact of shadows created from a new building or structure.

The *CEQR Technical Manual* recommends that shadows be assessed for new buildings or structures taller than 50 feet. Assessment for structures less than 50-feet tall is recommended only if the structure is adjacent to important light-sensitive resource, such as a park, historic resource, or important natural feature.

No significant impacts from shadows will occur as a result of the proposed action. The proposed action would result in taxi service changes, but would not typically result in any new construction that could cast shadows on public open spaces, historic resources, or visual resources. Individual medallion holders would lease garage space or park at home, while corporate leaseholders that may purchase new medallions, in general, already operate fleet garages or lease parking lots. Furthermore, taxi garages are likely be located within existing light industrial zones where light-sensitive resources are generally absent and garages are not typically taller than 50 feet.

3.6 HISTORIC RESOURCES

The term "historic resource" encompasses districts, buildings, structures, sites and objects of historical, cultural, aesthetic, or archaeological importance. Because historic resources play an important role in maintaining the character of a city, the *CEQR Technical Manual* calls for a determination of whether the proposed action disturbs the City's historic resources including both architectural and archaeological resources. An in-ground disturbance to an area not previously excavated is considered worthy of an archaeological assessment. An architectural assessment is deemed necessary for new construction, demolition or significant physical alteration to any building, structure, or object. Significant impacts include changes in scale, visual prominence or visual context of any building, structure, or object; construction including but not limited to excavation vibration, subsidence, dewatering or falling objects; changes to significant historical landscapes and elimination of publicly accessible areas; and new shadows or lengthening of existing shadows over historic landscapes or structures

The proposed action is not likely to result in any new in-ground disturbance. Individual medallion holders are anticipated to lease garage space or park at home, while corporate leaseholders that may purchase new medallions, in general, already operate fleet garages or parking lots. What is more, taxi garages tend to exist in centrally located light industrial zones, such as Long Island City and Red Hook, where historic resources are rarely present.

The proposed action is not expected to involve any construction activity that would impair existing historic or architectural structures or result in an in-ground disturbance that could affect archaeological resources. Therefore, the proposed action is not anticipated to have significant~~ly~~ ~~affect~~ adverse impacts on historic resources in New York City.

3.7 URBAN DESIGN AND VISUAL RESOURCES

Urban design and visual resources comprise the "look" of a neighborhood. This includes the neighborhood's physical appearance, the size and shape of buildings, their arrangement on blocks, the street patterns and noteworthy views. An analysis under CEQR considers an action's potential to affect the visual character, visual design or resources of an area. The *CEQR Technical Manual* requires a detailed assessment of urban design and visual resources if an action would result in structures of substantially different bulk or setbacks than exist in an area, or result in substantial new above-ground construction that would occur in an area that has important views, natural resources or landmark structures.

The proposed action would result in taxi service changes in New York City, but is not anticipated to result in new taxi garage construction. Individual medallion holders would lease garage space or park at home, while corporate leaseholders, in general, already operate fleet garages or lease parking lots. Further, taxi garages and parking lots tend to be located in light industrial zones (e.g. Long Island City, Red Hook) where there is neither a consistent or cohesive urban design sense nor significant visual resources. Therefore, no significant adverse urban design or visual resources impacts are expected as a result of the proposed action.

3.8 NEIGHBORHOOD CHARACTER

Neighborhood character is an amalgam of the various elements that give neighborhoods their distinct personality. Neighborhood character is derived from the combination of varying urban elements, such as land use, urban design, visual and historic resources, socioeconomics, traffic and noise. These elements come together to create the feeling and context of a neighborhood. Therefore, when considering the neighborhood character, all elements of a neighborhood must be evaluated together.

Taxicabs have long been an integral part of the Manhattan streetscape, contributing to the City's unique character. Easily identified by their bright yellow color and uniform look, the yellow cab has reached iconic status in the City. It is hard to think of another city in the world, except for perhaps the black cabs of London, where taxicabs play such a fundamental role in the identity and backdrop of a city as the yellow cabs do in New York. Taxicabs zipping around Manhattan picking up and discharging passengers are part of the pulse of the City, helping to keep New York both vibrant and distinct.

While the taxicab has become a symbol the City and an established element of its character, it is also an important City industry, providing a vital source of transportation service for hundreds of millions of riders each year. As with any business, the taxicab industry follows the laws of supply and demand. Over the past few years it has become apparent that the demand for taxis is outstripping supply. Taxi ridership has steadily risen and the number of available taxis has decreased.

As part of the proposed action, over the next three years 900 total taxicab medallions would be issued for sale, beginning in the fiscal year ending June 30, 2004. The additional taxis would help to meet the growing demand for cab service in Manhattan, while at the same time adding additional cabs to the streetscape of the city, helping to maintain the City's character. As discussed in other sections of this report, the proposed action is not expected to have a significant impact on any of the areas that comprise neighborhood character: land use, urban design, visual and historic resources, socioeconomics, traffic and noise. Therefore, the proposed action is not anticipated to have significant adverse neighborhood character impacts.

3.9 NATURAL RESOURCES

The *CEQR Technical Manual* defines natural resources as areas "capable of providing habitat for plant and animal species or capable of functioning to support environmental systems and maintain the City's environmental balance." Surface waters, groundwater, drainage systems, and wetlands may be included, as well as dunes, beaches and coastal resources, grasslands, woodlands, and even landscaped areas, gardens, and built structures used by wildlife.

The *CEQR Technical Manual* recommends several screening criteria when determining whether an assessment of natural resource impacts should be performed. An area must be substantially devoid of natural resources or contain no built resources that is known to contain or may be used for protected species. An area must not contain subsurface conditions that affect neighboring natural resources, and the action must not disturb nearby natural resources for no further assessment to be warranted. Finally, a proposed action may be deemed to disturb a natural resource, but a regulatory agency with jurisdiction over the resource, under certain conditions may deem the disturbance environmentally insignificant if, for example, the action is considered a necessary improvement. If the action does not meet all of these conditions or it is unknown if it meets one or more of these conditions, then an assessment of natural resources is appropriate.

The proposed action would alter the provision of taxicab services and increase taxi volumes, but would not likely result in any new construction that could impact natural resources. Individual medallion holders would lease garage space or park at home, while corporate leaseholders, in general, already operate fleet garages or lease parking lots. The areas of the City in which taxicab garages are located have been extensively developed, with few, if any, properties returning to their natural state. No significant adverse impacts to natural resources are thus anticipated as a result of the proposed action.

3.10 HAZARDOUS MATERIALS

The CEQR Technical Manual defines a hazardous material as "any substance that poses a threat to human health or the environment." Substances of concern include, but are not limited to, heavy metals, volatile organic compounds (VOCs), semi-volatile organic compounds, methane, polychlorinated biphenyls (PCB), and hazardous wastes as defined under RCRA (Resource Conservation and Recovery Act).

The CEQR Technical Manual has three screening criteria to be considered before a lead agency may decide that no further examination of potential hazardous materials impacts is required. First, no elevated levels of hazardous materials may exist on the site. Second, an action may not create increased pathways to exposure to hazardous materials. Third, an action may not introduce new activities or processes using hazardous materials such that risk of human or environment exposure is increased. If these conditions are not met, a detailed hazardous materials assessment should be performed.

The proposed action would result in changes to the provision ~~to~~ of taxi service and increased taxi volumes, but would not likely result in any new construction that could lead to exposure to hazardous materials. Construction of new taxi garages is not expected as a result of this action as individual medallion holders would lease garage space or park at home, while corporate leaseholders, in general, already operate fleet garages or lease parking lots. The proposed action would not result in elevated levels of hazardous materials, increased pathways to exposures of hazardous materials or new activities using hazardous materials. Therefore, no significant hazardous materials impacts are anticipated as a result of the proposed action.

3.11 WATERFRONT REVITALIZATION

Proposed actions subject to CEQR that are situated within the designated boundaries of the New York City Coastal Management Zone should be assessed for their consistency with the City's Local Waterfront Revitalization Program (LWRP). The LWRP establishes the City's Coastal Zone and includes policies dealing with residential and commercial development, water dependent and industrial uses, commercial and recreational boating, coastal ecological systems, water quality, flooding and erosion, solid waste and hazardous substances, public access, scenic resources, and historical and cultural resources. The LWRP policies address basic issues: fish and wildlife, flooding and erosion, water resources, air and scenic quality, public access and recreation resources, energy development and solid waste disposal, and development. The LWRP establishes Coastal Zone boundaries and all discretionary actions must be reviewed for consistency with Coastal Zone policies. CEQR recommends any proposed action within the Coastal Zone boundaries to be assessed for consistency with the LWRP.

The proposed action would result in changes to the provision ~~to~~ of taxi service and increased taxi volumes, but would not likely result in any new construction as individual medallion holders would lease garage space or park at home, while corporate leaseholders, in general, already operate fleet garages or lease parking lots. The proposed action is therefore unlikely to induce the development of additional garages that could potentially be located within New York City's coastal zone boundaries. Hence, no significant impacts are anticipated from the proposed action and no assessment of consistency with the City's LWRP is necessary.

3.12 INFRASTRUCTURE

The infrastructure of a city is made up of the physical systems that support its population. These systems include water supply, wastewater treatment, sanitation, energy, roadways, bridges and tunnels and public transportation. CEQR evaluates the impact on water supply, wastewater treatment and stormwater management together and the other physical systems individually in separate sections.

According to the *CEQR Technical Manual*, actions that require exceptionally large amounts of water, for example a power plant, must have their impact on the demand of the city's water supply evaluated. In addition, if an action results in very large flows of wastewater that could impact the capacity of sewage treatment plants, an assessment is required.

The proposed action will not substantially impact the city's water supply, wastewater treatment or stormwater management systems. The changes to taxi service and increased taxi volumes would not likely cause any changes in the provision of infrastructure services, nor would it affect infrastructure demand levels. No significant infrastructure impacts are expected as a result of the proposed action.

3.13 SOLID WASTE AND SANITATION SERVICES

In New York City, the Department of Sanitation has the responsibility to collect and dispose of municipal solid waste and recyclable materials generated by residences, some non-profit institutions, tax-exempt properties and New York City agencies. Private waste carters that collect commercial waste contract their services to businesses in the City. The Department of Sanitation and the private carters haul waste to solid waste management facilities where the waste is processed and sent to recycling or disposal facilities out of New York City.

The *CEQR Technical Manual* states that regulatory changes affecting the generation or management of solid waste in New York City may require evaluation for consistency with the Comprehensive Solid Waste Management Plan. The Plan establishes a hierarchy of waste management methods that includes the future use of barges and rail to ship solid waste to facilities outside of the City.

The proposed action would only result in changes to taxi service and volumes, and so would not likely have an impact waste generation levels. The proposed action would also not likely cause any changes in the provision of waste disposal services. Therefore, no significant adverse impacts to solid waste or sanitation service are anticipated as a result of the proposed action.

3.14 ENERGY

As part of the environmental review process, energy consumption should be assessed in light of any proposed action. The consumption of energy encompasses sources used for heating, electricity and transportation and includes fossil fuels (oil, coal, gas, etc.), hydroelectric power and miscellaneous sources like wood, solid waste or other combustible materials.

The *CEQR Technical Manual* calls for a detailed assessment of energy use for actions that significantly impact the transmission or generation of energy or that generate a substantial indirect consumption of energy. For example, an energy impact analysis would be appropriate if an action would lead to a significant increase in vehicle miles traveled (VMT).

As part of the proposed action the number of new taxi medallions would increase by 300 a year over a three-year period starting in the fiscal year ending June 30, 2004. While this would result in 900 total new vehicles on New York City's street network, as taxicab shifts are staggered over 24 hours, only a portion of the 900 medallions would be on the streets at any point in time. Moreover, 900 total additional taxicabs is a small number relative to the total of vehicles on the City's streets in any peak hour and would not be considered to increase VMT significantly. No significant adverse energy impacts are thus anticipated as a result of the proposed action and no further assessment of potential energy impacts is considered warranted.

3.15 TRAFFIC AND PARKING

As part of the proposed action, the TLC is proposing to issue 300 new medallions each year for the next three years, for a total of 900 medallions by fiscal year ending June 30, 2006. As part of this EIS, these numbers of new medallions were analyzed over a one- to three-year period for adverse impacts on traffic operations. This action is limited to an increase in medallions and does not include other related regulatory proposals such as the establishment of new taxi stands.

The potential impact of additional medallion taxis in New York City was one of three critical issues (the others being air quality and socioeconomic conditions) analyzed during the preparation of this EIS. The analysis of traffic conditions was a precursor to the air quality section, as well as providing an estimate of the impacts upon traffic circulation in the study area. This traffic study followed the guidelines of the *City Environmental Quality Review (CEQR) Technical Manual*, dated October 2001, as amended.

3.15.1 Selection of Study Area, Study Locations, and Study Periods

The selection of a representative sample of locations for traffic analysis was conducted using a two-step screening process as follows:

1) Screening at borough level, and
2) Screening of intersections.

Selection of Study Area

While there are numerous locations throughout New York City (particularly in Manhattan) where taxicabs operate and where congestion occurs, it was necessary to select a representative sample of locations that would likely be significantly affected. According to *The New York City Taxicabs Fact Book*, 3rd Edition:

- Only eight percent of all taxi trips served the "outer boroughs" (Brooklyn, the Bronx, Queens, Staten Island, or Northern Manhattan).
- More than one-half of the outer borough trips began in Manhattan south of 96th Street.
- Only one percent of all taxi trips both began and ended in the outer boroughs.
- Seventy percent of all taxi trips transport Manhattan residents.
- Eighty percent of all taxicab trips began and/or ended in the Manhattan business district south of 60th Street.
- Forty-two percent of all trips started between 30th and 60th Streets.
- Taxicabs comprise up to 60 percent of all vehicles in motion on Midtown avenues.

- Taxicabs are the primary transportation mode between Manhattan and the LaGuardia and John F. Kennedy Airports. Nearly one-half of all passengers going from Manhattan to LaGuardia Airport take a taxicab. Taxi ridership departing the airports is 50 percent higher than the ridership to the airports.

Although the taxicab industry serves all five boroughs of New York City, the proportion of taxi trips originating in Manhattan, south of 96th Street, is over 90 percent. Therefore, the borough of Manhattan was selected, and a study area south of 96th Street was established to select the representative sample locations for traffic analysis.

Selection of Representative Locations

Before selecting a representative sample of locations that would likely to be significantly impacted as a result of additional taxicabs in the city, the following were reviewed:

- *Final Environmental Impact Statement (FEIS) for Additional Taxicab Licenses*, dated June 1989;
- *Supplemental Document to the Final EIS for Additional Taxicab Licenses*, dated October 1995; and
- *The New York City Taxicab Fact Book*.

Intersections with high taxi volumes, and with recurring congestion, represented the most suitable candidate locations for this study. As part of the June 1989 Additional Taxicab Licenses Final Environmental Impact Statement (EIS), twelve sites were selected for traffic and air quality analyses. These representative sites, as shown in Figure 3.15-1, were selected to include known locations of critical roadway links, existing air quality trouble spots, and roadways that had high percentages of taxicabs during peak time periods.

All twelve sites selected for traffic and air quality analyses in the 1989 Final EIS for Additional Taxicab Licenses were reviewed for projected significant adverse traffic and air quality impacts. The significant adverse traffic impacts were projected at ten of the twelve analysis sites. However, none of the twelve sites had significant adverse air quality impacts (increase in predicted eight-hour CO concentrations of greater than 0.5 ppm).

In order to select a representative sample of locations for traffic analysis, a matrix was developed for the twelve sites identified in the 1989 Final EIS. This matrix, as shown in Table 3.15-1, included: peak hour traffic volumes, percentage of highest taxi usage in an hour, traffic congestion as defined in terms of level-of-service, travel speed during peak hours, projected increment in CO concentration from the 1989 Final EIS, proximity to major traffic and/or pedestrian generators, pedestrian activities, and proximity to facilities carrying significant volumes of airport-related taxi traffic.

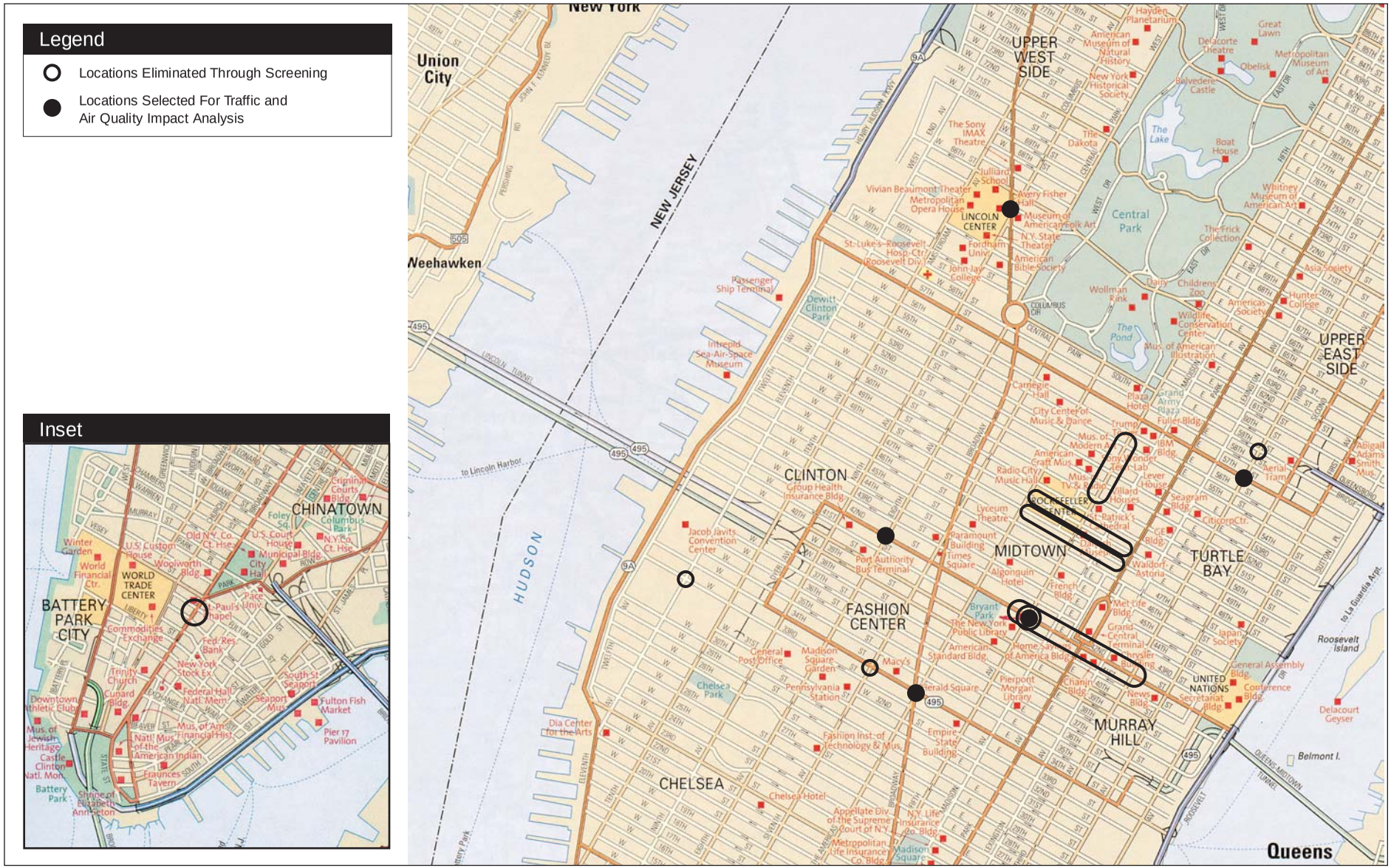


Fig. 3.15-1 – Study Intersection Screening

Proposed Issuance of Additional Taxicab Medallions

New York City Taxi and Limousine Commission

Prepared by Urbitran Associates

Table 3.15-1
Study Site Matrix

Location	Peak Hour Volume (vph)	Percentage of Highest Taxi Usage in an hour (%)	Level-of-Service	Speed (mph)	1989 Projected Increment in CO Concentration (ppm)	Proximity to Major Generator	Pedestrian Activity	Critical for Airport Access
Broadway/Columbus Avenue/West 65th Street	4,320	50 - 60	F	3 - 5	0.47	Lincoln Center	Very High	No
3rd Avenue/East 57th Street	3,780	30	E	2 - 10	0.23	Bloomingdale's and other stores, offices	High	Yes
3rd Avenue/East 59th Street	3,180	8 - 15	E	5 - 15	0.17	Bloomingdale's and other stores, offices	High	Yes
East 42nd Street between 3rd and 5th Avenues	1,120	27 - 44	F	4 - 8	0.27	Grand Central Terminal, Grand Hyatt Hotel, Offices	Very High	No
5th Avenue between 43rd and 42nd Streets	1,950	50	E	3 - 17	0.33	Stores, Offices	Very High	No
6th Avenue/Broadway/West 34th Street	3,890	33 - 41	E	3 - 19	0.28	Madison Square Garden, Pennsylvania Station, Empire State Building, Macy's and other department stores	Very High	No
7th Avenue southbound at West 34th Street	1,570	41 - 50	D	3 - 13	0.14	Pennsylvania Station, Madison Square Garden, hotels, offices	Very High	No
8th Avenue northbound at West 42nd Street	2,100	41 - 50	E	5 - 9	0.26	Port Authority Bus Terminal, offices, theaters	Very High	No
11th Avenue southbound at West 34th Street	1,580	11 - 17	A	16 - 30	0.02	Jacob Javits Center	Low	No
48th Street eastbound between Park and 6th Avenues	810	15 - 31	F	4 - 8	0.11	Rockefeller Center, stores, offices	High	No
49th Street westbound between Park and 6th Avenues	540	60 - 70	C	5 - 11	0.08	Rockefeller Center, stores, offices	High	No
5th Avenue between 56th and 51st Streets	2,410	50	F	3 - 17	0.15	stores, offices	High	No
Broadway soutbound between Fulton and John/Dey Streets	950	7 - 21	F	3 - 7	0.14	Civic Center, WTC site, offices	High	Yes

Upon review, the following five locations were selected for traffic and/or air quality analysis:

Broadway/Columbus Avenue/West 65th Street: One of the most significant traffic and pedestrian generators is the Lincoln Center for the Performing Arts complex. As shown in Table 3.15-1, taxicabs constitute about 50 to 60 percent of total traffic volumes during the early evening hours. In addition, this area carries significant traffic volumes and very high pedestrian volumes during peak hours. At this location, traffic congestion and the highest projected increment in CO concentration were reported in the 1989 Final EIS.

Third Avenue/East 57th Street: This intersection was selected because of its vital role in processing traffic oriented to and from the nearby Queensboro Bridge. The Queensboro Bridge is one of the primary routes for airport traffic between Manhattan and LaGuardia. During rush hours, as shown in Table 3.15-1, volumes on Third Avenue are among the highest in the CBD, consistently averaging 2,000 to 2,500 vehicles per hour with yellow taxicabs comprising up to 30 percent of traffic volumes on both Third Avenue and eastbound East 57th Street. This location is close to Bloomingdale's and other notable retail stores and generates a significant amount of pedestrian traffic.

Fifth Avenue/42nd Street: This intersection was selected because it had the second-highest CO concentration among the twelve intersections selected for traffic and air quality analysis in the 1989 Final EIS. During rush hours, yellow taxicabs comprised ~~of~~ 50 percent of all traffic on Fifth Avenue. In addition, during rush hours, 42nd Street carries a significant volume of vehicular traffic, with taxicabs comprising between 27 and 44 percent of all vehicles (see Table 3.15-1). This area also accommodates very high pedestrian volumes. The major trip generators within this area are retail stores, Grand Central Terminal, New York Public Library, hotels, and offices.

Broadway/Sixth Avenue/West 34th Street: This intersection is one of the most congested locations in New York City and traffic demands on all approaches to the intersection are high. In addition, the area accommodates very high pedestrian volumes. The Broadway/Sixth Avenue/West 34th Street intersection as a whole accommodates approximately 4,000 vehicles (total of all approaches) during the rush hour, with taxicabs comprising between 33 to 41 percent of this total volume (see Table 3.15-1). The major trip generators in the area are Pennsylvania Station, Madison Square Garden, the Empire State Building, Macy's and other department stores, and offices. During rush hours the Broadway/Sixth Avenue/West 34th Street intersection operates at capacity. The projected increment of CO concentration of 0.28 ppm was the third highest among the study locations.

Eighth Avenue/West 42nd Street: Eighth Avenue is a major northbound corridor and carries fairly consistent traffic volumes, ranging between 1,900 and 2,100 vehicles per hour throughout the day as reported in the 1989 Final EIS. The Port Authority Bus Terminal, which is located on the southwest corner of the Eighth Avenue/West 42nd Street intersection, attracts a significant amount of taxicab activity. Between West 40th

and 42nd Streets, taxicabs traveling to and from the bus terminal are managed through lane channelization and a dispatch service for pedestrians seeking taxicabs. During the morning peak hours, taxicab activity comprises about 50 percent of the total traffic volume. The percentage of taxicabs decreases to about 41 percent during the evening peak hours. This area also accommodates very high volumes of pedestrians. The major trip generators in the area are the Port Authority Bus Terminal, movie and live performance theaters, and offices.

In addition, intersections located within a 1,000-foot radius of the five key study intersections noted above were selected for traffic analysis, and to provide a basis for the air quality analysis.

Selection of Study Periods

The 1995 Supplemental Document to the 1989 Final EIS for Additional Taxicab Licenses focused on the weekday PM peak hour (5:00 p.m. to 6:00 p.m.) for two intersections and on the weekday PM peak hour (7:00 p.m. to 8:00 p.m.) for one intersection. However, according to the 1994 New York City Taxicab Factbook, 34 percent of all taxi trips started at the passengers' home; 19 percent started at the passengers' place of work; and between 6:00 a.m. and 10:00 a.m., at least 70 percent of all trips began at the passengers' home. These statistics, coupled with existing traffic flow patterns, suggest that from a traffic analysis standpoint, the weekday morning commuting peak period may be equally important as the evening and late evening (pre-theater) periods. For purposes of this EIS, therefore, both the weekday AM and PM peak hours were proposed for analysis.

In addition, a review of prior studies of Manhattan traffic networks (i.e. Route 9A EIS, Traffic Congestion Pollution Reduction (CPR) Study, and Rehabilitation of the Eleventh Avenue Viaduct Study, etc.) indicated that the weekday AM and PM peak periods carry the highest traffic volumes, including taxis. Weekend traffic volumes are relatively low as compared to the average weekday traffic volumes. In addition, the 1988 Final EIS for Additional Taxicab Licenses reported that the percentage of observed hailers unable to engage a medallion cab was much higher in the AM and PM peak periods than in the midday peak periods. Based on these findings, both AM and PM peak periods were determined to be critical for the traffic analysis.

3.15.2 Traffic Data Collection

Traffic data were collected on typical weekdays (Tuesday through Thursday) during the AM and PM peak periods. The field traffic data collection effort included automatic traffic recorder (ATR) counts, manual turning movement counts, detailed vehicle classification counts, sample manual turning movement counts, travel-time and delay runs, and an inventory of the relevant physical and roadway conditions at each study intersection.

Manual Turning Movement/Detailed Vehicle Classification Counts

Manual turning movement/detailed vehicle classification counts were performed on each approach at the following five key study intersections:

- Broadway/Columbus Avenue/West 65th Street,
- Third Avenue/East 57th Street,
- Fifth Avenue/42nd Street,
- Broadway/Sixth Avenue/West 34th Street, and
- Eighth Avenue/West 42nd Street.

Turning movement/detailed vehicle classification counts were performed for three mid-week days (Tuesday, June 6 through Thursday, June 8, 2003), during the morning (7:00 a.m. to 9:00 a.m.,) and afternoon (4:00 p.m. to 6:00 p.m.) peak periods. For air quality analysis purposes, vehicles were categorized into eight classes: autos, taxis, SUVs, light trucks, medium trucks, heavy trucks, motorcycles, and buses. In addition, taxis were further classified as occupied, unoccupied, or off-duty.

In addition, 15-minute sample turning movement/detailed vehicle classification counts were also performed on one mid-week day at a total of 68 intersections located within a 1,000-foot radius of the five key study intersections noted above. The sample counts coincided with the full counts at the five key study intersections during the identified morning and afternoon peak periods.

Automatic Traffic Recorder Counts

Automatic Traffic Recorder (ATR) machine counts were performed concurrently with the manual turning movement counts on all approaches at the five key study intersections. The ATR counts were conducted in 15-minute increments for three mid-week days (Tuesday, June 6 through Thursday, June 8, 2003).

Travel Time and Delay (Speed) Runs

The "floating car" method was used to conduct travel time and delay studies in each direction on the roadways approaching and departing the five key study intersections. The speed runs were conducted concurrently with the ATR counts and manual turning movement counts along 12 corridors, as follows:

- Broadway between West 61st and 69th Streets,
- Columbus Avenue between West 69th and 61st Streets,
- West 65th Street between Amsterdam Avenue and Central Park West,
- Third Avenue between East 53rd and 61st Streets,
- East 57th Street between Lexington and Second Avenues,
- Fifth Avenue between 38th and 46th Streets,

- 42nd Street between Sixth and Park Avenues,
- Broadway between West 30th and 38th Streets,
- Sixth Avenue between West 30th and 38th Street,
- West 34th Street between Fifth and Seventh Avenues,
- Eighth Avenue between West 38th and 46th Streets, and
- West 42nd Street between Ninth and Seventh Avenues.

An effort was made to conduct at least three speed runs during each of the two-hour morning and evening peak periods on each of the three mid-week days. The speed run data included travel time for each roadway segment, and duration and type of delays encountered.

Roadway Inventory

Intersection geometry and physical operating characteristics for the study intersections were inventoried in the field. The field inventory included:

- Traffic flow directions,
- Number of lanes and lane widths,
- Lane configurations,
- Crosswalk and crosswalk widths,
- Curbside parking regulations,
- Turning restrictions/prohibitions,
- Type of traffic control,
- Signal timing and phasing,
- Bus stop locations and bus route, if available, and
- Truck routes/restrictions.

3.15.3 Existing Baseline Conditions

This section of the report describes existing traffic operations within each of the five key study intersection areas. The purpose of this section is to establish a basis (existing baseline traffic conditions) that can be used to project the future no-build and build traffic conditions presented in a subsequent section of this report.

Selection of Peak Hours

The manual turning movement counts, in conjunction with the ATR counts, were used to develop the existing traffic flow networks for the AM and PM peak hours. Based on the manual turning movement counts and ATR counts, the weekday AM peak hour was found to occur between 7:45 a.m. and 8:45 a.m. and the weekday PM peak hour was found to occur from 5:00 p.m. to 6:00 p.m. Figures A-1 through A-10 in *Appendix A* summarize the existing weekday AM and PM peak hour traffic volumes at the five key

study intersections (including the intersections located within a 1,000-foot radius of the five key study intersections).

Traffic Operations and Peak Hour Traffic Volumes

The weekday AM and PM peak hour traffic volumes and traffic operations at each of the five key study intersection areas are described below:

Broadway/Columbus Avenue/West 65th Street Study Area: This study area is located next to the Lincoln Center for the Performing Arts complex that is one of the most significant traffic and pedestrian generators. Columbus Avenue, with the Lincoln Center along the western side of the avenue, is a one-way southbound street and carries significant traffic volume during the AM and PM peak periods. During the morning peak period, Columbus Avenue does not permit parking and provides five travel lanes between 7:00 a.m. and 10:00 a.m. (Monday thru Friday). However, one-hour parking is permitted along the east side of Columbus Avenue between 10:00 a.m. and 7:00 p.m. (Monday thru Friday). Columbus Avenue, within the study area, carries about 1,220 to 1,910 vehicles during the AM peak hour and about 910 to 1,570 vehicles during the PM peak hour.

Broadway, which diagonally crossing the regular Manhattan grid, is a two-way northbound-southbound street within the study area. The both directions are separated by an approximately 24-foot wide median. In general, Broadway provides three 10-foot travel lanes in each direction and permits parking along the right side of the street (parking is not permitted along the median). Broadway, in the southbound direction, carries about 870 to 1,160 vehicles during the AM peak hour and about 805 to 1,045 vehicles during the PM peak hour. In the northbound direction, Broadway carries about 580 to 680 vehicles during the AM peak hour and about 705 to 880 vehicles during the PM peak hour.

Sixty-Fifth Street is a one-way eastbound street and provides three to four travel lanes approaching Columbus Avenue/Broadway. The east of Columbus Avenue/Broadway, 65th Street provides two travel lanes. Approaching Columbus Avenue/Broadway, 65th Street carries about 560 and 590 vehicles during the AM and PM peak hours, respectively.

Third Avenue/East 57th Street Area: This study area plays vital role in processing traffic oriented to and from the nearby Queensboro Bridge. The Queensboro Bridge is one of the primary routes for airport traffic between Manhattan and LaGuardia. Third Avenue is a major one-way northbound street. Third Avenue does not permit standing along the east curbside between 56th and 60th Streets. Along the west curbside, standing is not permitted except truck loading and unloading between 7:00 a.m. and 4:00 p.m. and no standing is permitted between 4:00 p.m. and 7:00 p.m. Third Avenue provides six travel lanes in the AM peak period and seven travel lanes in the PM peak period. The right lane is a designated bus lane. Third Avenue, within the study area, carries 1,805 to 2,470 vehicles in the AM peak hour and 1,575 to 2,430 vehicles in the PM peak hour.

Fifty-Seventh Street is a major two-way eastbound-westbound street in Upper Midtown. Approaching Third Avenue, 57th Street provides three travel lanes in each direction. Right lanes along both north and south curbsides are designated for buses only in the AM (7:00 a.m. to 10:00 a.m.) and PM (4:00 p.m. to 7:00 p.m.) peak periods. 57th Street, approaching Third Avenue, carries about 680 and 900 vehicles in the eastbound direction during the AM and PM peak hours, respectively. In the westbound direction, 57th Street carries 890 and 470 vehicles at the intersection of Third Avenue during the AM and PM peak hours, respectively.

This location is close to Bloomingdale's and other notable retail stores and generates a significant amount of pedestrian traffic.

Fifth Avenue/42nd Street Area: This study area is located in the core of Manhattan's central business district and the major trip generators within this study area are retail stores, offices, hotels, Grand Central Station, and Fifth Avenue Public Library. The intersection of Fifth Avenue and 42nd Street accommodates very high pedestrian volumes, and as such, turns are prohibited from all approaches except buses. Fifth Avenue is a one-way southbound street and provides five travel lanes between 7:00 a.m. and 7:00 p.m. Fifth Avenue carries about 1,495 to 2,070 vehicles in the AM peak hour and about 1,350 to 1,745 vehicles in the PM peak hour. The right lane (lane next to the west curbside) on Fifth Avenue is a designated bus lane to accommodate high bus volumes.

Forty-Second Street is a major two-way eastbound-westbound cross street. 42nd Street, within the Fifth Avenue/42nd Street intersection study area, provides three travel lanes in each direction during the AM and PM peak period. Forty-Second Street, approaching Fifth Avenue, carries about 700 and 535 vehicles in the eastbound direction during the AM and PM peak hours, respectively. In the westbound direction, 42nd Street carries 950 and 750 vehicles at the intersection of Fifth Avenue during the AM and PM peak hours, respectively.

Broadway/Sixth Avenue/West 34th Street: This intersection is one of the congested locations in New York City and traffic demands on all approaches to the intersection are high. In addition, the intersection of Broadway/Sixth Avenue/34th Street accommodates very high pedestrian volumes, and as such, turns are prohibited from all approaches. The major trip generators in the area are Pennsylvania Station, Madison Square Garden, the Empire State Building, Macy's and other department stores, and offices.

The diagonal crossing of Broadway makes this intersection wider and complicated. Broadway is a one-way southbound street and provides a bike lane on the eastside next to the east curb lane. Broadway provides two to three travel lanes south of 34th Street. And four travel lanes north of 34th Street. Broadway carries about 605 to 735 vehicles in the AM peak hour and about 590 to 930 vehicles in the PM peak hour.

Sixth Avenue, primary commuter corridor through this area, is a major one-way northbound street. Sixth Avenue provides a bike lane on the west side next to the west curb lane. Sixth Avenue provides four to five travel lanes and carries about 1,785 to 2,010 vehicles in the AM peak hour and about 1,620 to 1,930 vehicles in the PM peak hour.

Thirty-Fourth Street, within the study area, provides three travel lanes in each direction. Parking along both north and south curbs are not permitted between 7:00 a.m. and midnight (except Sunday). In addition, standing is also not allowed along both curbs from 7:00 a.m. to 10:00 a.m. and from 4:00 p.m. to 7:00 p.m. Thirty-Fourth Street at the intersection of Broadway/Sixth Avenue carries about 575 to 600 vehicles in the eastbound direction and about 580 to 650 vehicles in the westbound direction.

Eighth Avenue/West 42nd Street: Eighth Avenue is a major northbound corridor through Midtown toward the Upper West Side. The Port Authority Bus Terminal, which is located on the southwest corner of the Eighth Avenue/West 42nd Street intersection, attracts a significant amount of taxicab activity. Between West 40th and 42nd Streets, taxicabs traveling to and from the bus terminal are managed through lane channelization and a dispatch service for pedestrians seeking taxicabs. This area also accommodates very high volumes of pedestrians. The major trip generators in the area are the Port Authority Bus Terminal, movie and live performance theaters, and offices.

Eighth Avenue is a one-way northbound street and provides four to six travel lanes. Eighth Avenue carries about 1,220 to 1,935 vehicles in the AM peak hour and about 910 to 1,790 vehicles in the PM peak hour. Forty-Second Street, approaching Eighth Avenue, provides three travel lanes in each direction and carries about 835 and 500 vehicles in the eastbound direction during the AM and PM peak hours, respectively. In the westbound direction, Forty-Second Street carries about 440 and 470 vehicles in the AM and PM peak hour, respectively.

Level-of-Service Calculation Methodology and Criteria

Level-of-service (LOS) is a concept developed to describe the degree of comfort motorists experience as they travel through an intersection or along a roadway segment. For signalized intersections, level-of-service is defined in terms of the average delay encountered by vehicles traveling through the intersection. The individual levels-of-service are expressed by the letter-grades A, B, C, D, E, and F, and are defined in terms of average control delay (in seconds per vehicle), using peak 15-minute flow rate. Average control delay includes initial deceleration delay, queue move-up time, stopped delay at the signal and, finally, acceleration delay as the vehicle progresses through the intersection. Each successive letter-grade indicates greater congestion and higher delays at the intersection. The quantitative relationships between level-of-service and average control delay for signalized intersections are shown below.

Level-of-Service Criteria for Signalized Intersections

Level-of-Service	Average Control Delay (seconds/vehicle)
A	≤ 10
B	> 10 and ≤ 20
C	> 20 and ≤ 35
D	> 35 and ≤ 55
E	> 55 and ≤ 80
F	> 80

Source: Highway Capacity Manual, Chapter 16 (Signalized Intersection), Exhibit 16-2

The following is the description of levels-of-service for signalized intersections:

Level-of-Service A: This level-of-service occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.

Level-of-Service B: This level-of-service generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, generating more delay.

Level-of-Service C: The higher delays at this level-of-service may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, although some may still pass through the intersection without stopping.

Level-of-Service D: At this level-of-service, the influence of congestion becomes more noticeable. Long delays may result from some combination of unfavorable progression, long cycle lengths, and/or high volume-to-capacity (v/c) ratios. Many vehicles stop and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

Level-of-Service E: This level-of-service is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.

Level-of-Service F: This level-of-service is considered to be unacceptable to most drivers. This condition often occurs with over-saturation (i.e. when arrival flow rates exceed the capacity of the intersection). It may also occur at high v/c ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such conditions.

All LOS analyses described in this report were performed in accordance with the procedures described in the *2000 Highway Capacity Manual (HCM)*. In order to ensure a reasonable worst-case scenario, all LOS analyses were conducted using the peak 15-

minute flow rate observed during each weekday peak hour. Consequently, the LOS analysis results shown in this report reflect traffic conditions occurring only during the peak 15-minutes out of each weekday peak hour. Traffic operations during other weekday time periods, and throughout the weekend, are likely to be better than those described in this report.

Existing Levels-of-Service

Traffic operations analyses were conducted for each of the study intersections using the existing weekday AM and PM peak hour traffic volumes illustrated in Figures A-1 through A-10 of Appendix A. Tables 3.15-2 through 3.15-6 show the existing weekday AM and PM peak hour operational performance characteristics (including volume-to-capacity ratios, average control delays in seconds per vehicle, and corresponding levels-of-service) for each of the five key study intersections (including all intersections within 1000 feet of the five key stud intersections).

As shown in Tables 3.15-2 through 3.15-6, all of the lane groups and/or approaches at the study intersections within each of the five key study intersection areas currently operate at LOS D or better during the weekday AM and PM peak hours, with the exception of the following:

Broadway/Columbus Avenue/West 65th Street Study Area

Broadway/West 62nd Street

- The westbound approach at this intersection currently operates over capacity (v/c = 1.04) and at LOS E during the weekday AM peak hour.

Third Avenue/East 57th Street Study Area

Third Avenue/East 53rd Street

- The westbound exclusive right-turn lane currently operates at LOS E during the weekday AM and PM peak hours.

Third Avenue/East 55th Street

- The westbound approach currently operates at LOS E during the weekday AM and PM peak hours.

Table 3.15-2

2003 EXISTING TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
Broadway/Columbus Avenue/West 65th Street Study Area

Intersection	Direction	Movement	AM Peak Hour			PM Peak Hour		
			V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS
Columbus Avenue & W. 61st Street	SB	LT	0.53	8.3	A	0.56	8.7	A
Intersection			*	8.3	A	*	8.7	A
Columbus Avenue & W. 62nd Street	EB	R	0.15	20.8	C	0.21	21.5	C
	WB	LT	0.48	25.1	C	0.32	22.6	C
	SB	TR	0.47	7.8	A	0.48	8.0	A
Intersection			0.47	11.1	B	0.42	10.9	B
Columbus Avenue & W. 63rd Street	WB	L	0.31	22.4	C	0.35	22.8	C
	SB	T	0.39	7.3	A	0.34	7.1	A
Intersection			0.36	9.8	A	0.35	10.9	B
Columbus Avenue & W. 64th Street	SB	T	0.36	5.0	A	0.27	4.6	A
Intersection			*	5.0	A	*	4.6	A
Columbus Avenue & W. 66th Street	WB	LT	0.83	23.0	C	0.88	26.6	C
	SB	TR	0.67	27.7	C	0.90	38.5	D
Intersection			0.77	26.3	C	0.89	33.5	C
Columbus Avenue & W. 67th Street	WB	LT	0.59	19.1	B	0.52	17.6	B
	SB	TR	0.50	17.9	B	0.61	20.0	B
Intersection			0.54	18.1	B	0.56	19.3	B
Columbus Avenue & W. 68th Street	EB	TR	0.34	16.7	B	0.35	16.6	B
	SB	LT	0.42	14.7	B	0.58	17.0	B
Intersection			0.38	15.0	B	0.46	16.9	B
Columbus Avenue & W. 69th Street	WB	LT	0.09	15.4	B	0.30	17.8	B
	SB	TR	0.47	13.1	B	0.56	14.5	B
Intersection			0.29	13.1	B	0.44	14.9	B
Broadway & W. 61st Street	EB	LTR	0.16	18.0	B	0.32	20.0	B
	NB	TR	0.38	10.5	B	0.42	10.9	B
	SB	LT	0.53	11.8	B	0.63	13.3	B
Intersection			0.37	11.6	B	0.49	12.9	B
Broadway & W. 62nd Street	WB	LTR	1.04	76.4	E	0.53	23.6	C
	NB	LT	0.52	12.3	B	0.59	13.0	B
	SB	TR	0.59	12.8	B	0.54	12.1	B
Intersection			0.79	27.6	C	0.56	14.0	B
Broadway & W. 63rd Street	WB	LTR	0.52	22.4	C	0.56	23.1	C
	NB	LT	0.42	11.0	B	0.53	12.1	B
	SB	TR	0.51	11.7	B	0.47	11.3	B
Intersection			0.51	13.8	B	0.54	14.2	B
Broadway & W. 64th Street	NB	TR	0.67	27.5	C	0.70	27.9	C
	SB	LT	0.46	5.2	A	0.40	4.8	A
Intersection			*	14.2	B	*	15.3	B

NB = northbound; SB = southbound; EB = eastbound; WB = westbound.
LT = left and through movements; TR = through and right movements; LTR = left, through and right movements.
L = left movement; T = through movement; R = right movement.
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Table 3.15-2 (Cont'd)

2003 EXISTING TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
Broadway/Columbus Avenue/West 65th Street Study Area

			AM Peak Hour			PM Peak Hour		
Intersection	Direction	Movement	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS
Broadway &	EB	TR	0.42	27.6	C	0.43	27.7	C
Columbus Avenue &		R	0.53	33.0	C	0.54	32.9	C
W. 65th Street	NB	TR	0.60	30.3	C	0.74	33.6	C
	SB (Bway)	T	0.78	33.9	C	0.60	29.8	C
	SB (CLBS)	LT	0.87	32.6	C	0.87	33.6	C
Intersection			*	31.5	C	*	32.0	C
Broadway &	WB	LTR	0.56	25.5	C	0.59	26.3	C
W. 66th Street	NB	LT	0.41	8.4	A	0.45	8.7	A
	SB	TR	0.54	9.4	A	0.44	8.5	A
Intersection			0.54	12.9	B	0.51	12.8	B
Broadway &	WB	LTR	0.59	29.1	C	0.71	33.5	C
W. 67th Street	NB	LT	0.38	8.1	A	0.44	8.6	A
	SB	TR	0.49	8.9	A	0.45	8.6	A
Intersection			0.53	11.2	B	0.55	12.2	B
Broadway &	EB	LTR	0.57	28.2	C	0.47	25.5	C
W. 68th Street	NB	TR	0.37	8.0	A	0.45	8.6	A
	SB	LT	0.55	9.7	A	0.54	9.6	A
Intersection			0.56	11.4	B	0.51	10.8	B
Broadway &	WB	LTR	0.29	22.3	C	0.44	24.8	C
W. 69th Street	NB	LT	0.40	8.3	A	0.51	9.2	A
	SB	TR	0.48	8.8	A	0.39	8.1	A
Intersection			0.40	9.6	A	0.48	10.3	B
Central Park West &	EB	LTR	0.91	43.8	D	0.76	33.9	C
W. 65th Street	NB	TR	0.60	20.5	C	0.88	31.1	C
	SB	LT	0.34	5.1	A	-	-	-
		DEFL	-	-	-	0.44	23.3	C
		T	-	-	-	0.39	5.7	A
Intersection			0.60	24.1	C	0.75	25.7	C
Amsterdam Ave &	EB	LT	0.63	25.9	C	0.44	22.2	C
W. 65th Street	NB	TR	0.44	9.5	A	0.65	11.7	B
Intersection			0.52	13.9	B	0.56	13.7	B

NB = northbound; SB = southbound; EB = eastbound; WB = westbound.
LT = left and through movements; TR = through and right movements; LTR = left, through and right movements.
L = left movement; T = through movement; R = right movement.
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Table 3.15-3

2003 EXISTING TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
3rd Avenue/East 57th Street Study Area

Intersection	Direction	Movement	AM Peak Hour V/C Ratio	AM Peak Hour Delay	AM Peak Hour LOS	PM Peak Hour V/C Ratio	PM Peak Hour Delay	PM Peak Hour LOS
3rd Avenue &	WB	TR	0.43	17.6	B	0.36	16.7	B
E. 53rd Street		R	0.81	64.5	E	0.85	69.3	E
	NB	LT	0.98	32.1	C	0.85	21.1	C
Intersection			0.71	31.1	C	0.61	22.8	C
3rd Avenue &	EB	LT	0.50	18.6	B	0.72	23.3	C
E. 54th Street	NB	T	0.86	21.5	C	0.93	26.4	C
		R	0.44	16.5	B	0.57	20.3	C
Intersection			0.68	20.6	C	0.83	25.2	C
3rd Avenue &	WB	TR	0.99	63.1	E	0.97	58.4	E
E. 55th Street	NB	LT	0.84	15.3	B	0.95	22.1	C
Intersection			0.90	23.0	C	0.96	28.0	C
3rd Avenue &	EB	LT	0.94	49.4	D	0.99	60.3	E
E. 56th Street	NB	T	0.71	13.9	B	0.93	22.0	C
		R	0.57	15.7	B	0.17	9.7	A
Intersection			0.81	20.2	C	0.96	29.0	C
3rd Avenue &	EB	DEFL	0.85	53.6	D	-	-	-
E. 57th Street		T	1.01	59.7	E	-	-	-
		LT	-	-	-	0.99	46.4	D
	WB	T	0.92	44.3	D	0.60	30.1	C
		R	0.95	68.5	E	0.33	27.7	C
	NB	LTR	0.97	34.8	C	0.82	24.1	C
		R	0.41	21.8	C	0.92	59.6	E
Intersection			*	42.1	D	*	31.9	C
3rd Avenue &	EB	LT	0.46	18.2	B	0.54	19.2	B
E. 58th Street	NB	TR	0.86	21.4	C	0.72	17.8	B
		R	0.26	14.1	B	0.49	17.7	B
Intersection			0.66	20.7	C	0.63	18.1	B
3rd Avenue &	EB	LT	0.57	19.3	B	0.40	16.9	B
E. 59th Street	NB	TR	0.77	19.0	B	0.72	17.8	B
		R	1.05	85.9	F	0.98	73.9	E
Intersection			0.67	27.1	C	0.56	23.5	C
3rd Avenue &	WB	TR	0.68	22.1	C	0.69	22.2	C
E. 60th Street		R	0.89	72.8	E	0.92	75.2	E
	NB	LT	0.57	15.6	B	0.48	14.6	B
Intersection			0.63	20.7	C	0.58	21.2	C
3rd Avenue &	WB	TR	1.00	54.9	D	0.62	24.1	C
E. 61 Street	NB	LT	0.60	12.3	B	0.50	11.2	B
Intersection			0.77	24.7	C	0.55	14.3	B
2nd Avenue &	EB	T	0.63	34.3	C	1.04	67.1	E
E. 57th Street		R	1.05	99.9	F	0.69	39.2	D
	WB	DEFL	1.05	61.7	E	0.45	22.2	C
		T	0.54	16.0	B	0.33	16.4	B
	SB	LTR	0.77	22.7	C	0.54	15.2	B
Intersection			0.95	31.9	C	0.75	31.7	C
Lexington Avenue &	EB	TR	0.75	26.0	C	0.91	33.9	C
E. 57th Street	WB	LT	0.81	27.1	C	0.57	21.3	C
	SB	LT	0.89	23.0	C	0.87	21.2	C
		R	0.46	15.2	B	0.30	12.4	B
Intersection			0.85	24.3	C	0.89	24.4	C

NB = northbound; SB = southbound; EB = eastbound; WB = westbound.
LT = left and through movements; TR = through and right movements; LTR = left, through and right movements.
L = left movement; T = through movement; R = right movement.
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Table 3.15-4

2003 EXISTING TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
5th Avenue/42nd Street Study Area

			AM Peak Hour			PM Peak Hour		
Intersection	Direction	Movement	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS
5th Avenue &	EB	TR	0.64	25.0	C	0.81	29.9	C
E. 38th Street	SB	LT	0.63	12.9	B	0.57	12.2	B
Intersection			0.63	15.9	B	0.68	18.6	B
5th Avenue &	WB	LT	0.55	22.7	C	0.67	25.2	C
E. 39th Street	SB	T	0.61	12.7	B	0.54	11.8	B
		R	0.38	12.0	B	0.32	11.1	B
Intersection			0.58	15.0	B	0.59	15.8	B
5th Avenue &	EB	TR	0.70	26.3	C	0.44	20.9	C
E. 40th Street	SB	LT	0.71	14.1	B	0.62	12.8	B
Intersection			0.70	17.4	B	0.54	14.6	B
5th Avenue &	SB	LT	0.65	9.0	A	0.59	8.4	A
E. 41st Street								
Intersection			*	9.0	A	*	8.4	A
5th Avenue &	EB	TR	0.80	28.9	C	0.60	23.1	C
E. 42nd Street	WB	LT	1.05	64.4	E	0.97	44.9	D
	SB	LT	0.69	13.7	B	0.64	13.0	B
		R	0.08	8.9	A	0.13	9.6	A
Intersection			0.84	31.3	C	0.78	23.3	C
5th Avenue &	WB	LT	0.24	18.4	B	0.31	19.1	B
E. 43rd Street	SB	T	0.72	14.3	B	0.65	13.2	B
		R	0.23	10.1	B	0.28	10.5	B
Intersection			0.51	14.6	B	0.50	14.0	B
5th Avenue &	EB	TR	0.53	22.5	C	0.60	23.8	C
E. 44th Street	SB	LT	0.77	15.4	B	0.69	13.8	B
Intersection			0.67	16.8	B	0.65	16.3	B
5th Avenue &	WB	LT	0.47	21.5	C	0.50	21.7	C
E. 45th Street	SB	T	0.67	13.5	B	0.66	13.4	B
		R	0.31	10.9	B	0.22	10.0	A
Intersection			0.58	14.8	B	0.59	15.2	B
5th Avenue &	EB	TR	0.54	22.7	C	0.39	20.1	C
E. 46th Street	SB	LT	0.88	18.9	B	0.77	15.3	B
Intersection			0.73	19.6	B	0.60	16.2	B
6th Avenue &	EB	T	0.74	30.1	C	0.42	20.4	C
W. 42nd Street	WB	TR	1.05	68.5	E	0.84	29.4	C
	NB	LT	0.57	8.8	A	0.68	13.6	B
		R	0.31	8.2	A	0.36	12.0	B
Intersection			0.76	30.1	C	0.75	18.3	B
Madison Avenue &	EB	LT	1.05	69.6	E	0.49	21.2	C
E. 42nd Street	WB	TR	1.05	66.3	E	0.85	31.2	C
	NB	LT	0.51	11.9	B	0.46	11.3	B
		R	0.15	9.5	A	0.10	9.0	A
Intersection			0.75	49.8	D	0.63	20.9	C
Vanderbilt Avenue &	EB	T	0.66	21.8	C	0.50	18.6	B
E. 42nd Street	WB	T	0.98	44.9	D	0.70	22.7	C
Intersection			*	35.2	D	*	21.0	C

NB = northbound; SB = southbound; EB = eastbound; WB = westbound.
LT = left and through movements; TR = through and right movements; LTR = left, through and right movements.
L = left movement; T = through movement; R = right movement.
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Table 3.15-5

2003 EXISITNG TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
Broadway/6th Avenue/West 34th Street Study Area

Intersection	Direction	Movement	AM Peak Hour V/C Ratio	AM Peak Hour Delay	AM Peak Hour LOS	PM Peak Hour V/C Ratio	PM Peak Hour Delay	PM Peak Hour LOS
6th Avenue &	EB	LT	0.99	55.9	E	0.86	32.9	C
W. 30th Street	NB	LT	1.00	42.0	D	0.99	39.8	D
Intersection			1.00	45.0	D	0.92	38.4	D
6th Avenue &	WB	TR	0.55	20.4	C	0.45	18.6	B
W. 31st Street	NB	LT	0.95	28.4	C	0.86	21.1	C
Intersection			0.76	26.9	C	0.66	20.6	C
6th Avenue &	EB	LT	0.87	38.0	D	0.63	23.5	C
W. 32nd Street	NB	LT	0.72	17.2	B	0.67	16.2	B
Intersection			0.80	21.2	C	0.65	17.4	B
6th Avenue &	NB	L	0.39	15.3	B	0.74	36.9	D
W. 33rd Street		T	0.76	18.0	B	0.86	27.9	C
Intersection			*	17.8	B	*	28.8	C
6th Avenue & Broadway &	EB	T	0.81	34.9	C	0.74	31.6	C
W. 34th Street	WB	TR	0.85	37.1	D	0.87	38.1	D
	NB	T	0.57	7.0	A	0.51	6.5	A
	SB	T	0.88	45.6	D	1.00	65.4	E
Intersection			0.67	23.4	C	0.63	28.0	C
6th Avenue &	WB	TR	0.56	26.2	C	0.49	21.8	C
W. 35th Street	NB	LT	0.92	18.6	B	0.68	13.7	B
Intersection			0.78	20.1	C	0.60	15.3	B
6th Avenue &	EB	L	0.91	76.2	E	0.91	76.4	E
W. 36th Street		T	0.28	15.6	B	0.37	16.6	B
	NB	TR	0.68	17.1	B	0.62	16.3	B
Intersection			0.48	20.7	C	0.50	20.2	C
6th Avenue &	WB	T	0.35	16.3	B	0.32	16.0	B
W. 37th Street		R	0.57	22.9	C	0.81	34.1	C
	NB	LT	0.65	16.8	B	0.61	16.1	B
Intersection			0.61	17.2	B	0.71	18.6	B
6th Avenue &	EB	LT	0.81	34.8	C	0.82	31.0	C
W. 38th Street	NB	TR	0.57	8.7	A	0.63	12.6	B
Intersection			0.66	14.8	B	0.71	17.8	B
Broadway &	EB	TR	0.40	17.8	B	0.44	18.4	B
W. 30th Street	SB	LT	0.45	14.0	B	0.41	13.5	B
Intersection			0.42	15.3	B	0.43	15.5	B
Broadway &	WB	LT	0.75	27.4	C	0.56	21.3	C
W. 31st Street	SB	TR	0.70	18.7	B	0.70	18.7	B
Intersection			0.72	22.3	C	0.63	19.6	B
Broadway &	EB	TR	0.27	16.2	B	0.28	16.3	B
W. 32nd Street	SB	L	0.38	14.6	B	0.27	13.0	B
		T	0.54	15.4	B	0.52	15.1	B
Intersection			0.41	15.6	B	0.40	15.2	B
Broadway &	WB	L	0.33	16.4	B	0.32	16.1	B
W. 33rd Street	SB	T	0.56	17.2	B	0.49	16.1	B
Intersection			0.44	17.0	B	0.40	16.1	B

NB = northbound; SB = southbound; EB = eastbound; WB = westbound.
LT = left and through movements; TR = through and right movements; LTR = left, through and right movements.
L = left movement; T = through movement; R = right movement.
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Table 3.15-5 (Cont'd)

2003 EXISITNG TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
Broadway/6th Avenue/West 34th Street Study Area

			AM Peak Hour			PM Peak Hour		
Intersection	Direction	Movement	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS
Broadway &	WB	LT	0.25	7.1	A	0.21	6.8	A
W. 35th Street	SB	TR	0.52	29.5	C	0.55	30.0	C
Intersection			0.33	20.6	C	0.31	21.5	C
Broadway &	EB	TR	0.46	12.4	B	0.55	13.7	B
W. 36th Street	SB	LT	0.42	22.1	C	0.49	23.0	C
Intersection			0.44	17.5	B	0.53	18.5	B
Broadway &	WB	LT	0.51	15.7	B	0.44	14.8	B
W. 37th Street	SB	TR	0.40	17.8	B	0.43	18.1	B
Intersection			0.46	16.8	B	0.44	16.7	B
Broadway &	EB	TR	0.52	18.4	B	0.52	18.3	B
W. 38th Street	SB	LT	0.38	14.6	B	0.47	15.4	B
Intersection			0.46	16.2	B	0.49	16.5	B
5th Avenue &	EB	TR	0.47	17.7	B	0.44	17.3	B
W. 34th Street	WB	T	0.37	16.6	B	0.32	16.0	B
	SB	LT	0.64	16.8	B	0.50	15.0	B
		R	0.37	15.6	B	0.31	14.9	B
Intersection			0.55	16.9	B	0.47	15.7	B
7th Avenue &	EB	TR	0.66	24.3	C	0.59	22.8	C
W. 34th Street	WB	LT	0.73	26.3	C	0.58	22.6	C
	SB	T	0.58	13.0	B	0.65	13.8	B
Intersection			0.65	18.7	B	0.62	17.5	B

NB = northbound; SB = southbound; EB = eastbound; WB = westbound.
LT = left and through movements; TR = through and right movements; LTR = left, through and right movements.
L = left movement; T = through movement; R = right movement.
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Table 3.15-6

2003 EXISTING TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
8th Avenue/West 42nd Street Study Area

Intersection	Direction	Movement	AM Peak Hour V/C Ratio	AM Peak Hour Delay	AM Peak Hour LOS	PM Peak Hour V/C Ratio	PM Peak Hour Delay	PM Peak Hour LOS
8th Avenue &	EB	LT	0.67	23.9	C	0.49	19.8	B
W. 38th Street	NB	TR	0.64	15.3	B	0.49	13.9	B
Intersection			0.65	17.8	B	0.49	15.8	B
8th Avenue &	WB	TR	0.59	20.6	C	0.58	20.2	C
W. 39th Street	NB	LT	0.58	16.0	B	0.48	16.8	B
Intersection			0.59	17.4	B	0.53	18.1	B
8th Avenue &	EB	LT	0.63	19.3	B	0.38	15.3	B
W. 40th Street	NB	TR	0.69	20.0	C	0.57	20.1	C
Intersection			0.65	19.8	B	0.47	18.6	B
8th Avenue &	WB	TR	0.60	18.1	B	0.76	23.2	C
W. 41st Street	NB	L	0.06	18.5	B	0.04	16.6	B
		T	0.78	25.4	C	0.63	23.3	C
Intersection			0.68	23.9	C	0.71	23.3	C
8th Avenue &	EB	LT	0.79	22.1	C	0.45	14.9	B
W. 42nd Street	WB	TR	0.78	35.6	D	0.82	38.1	D
	NB	LT	0.83	25.1	C	0.77	24.0	C
		R	0.50	23.5	C	0.35	20.7	C
Intersection			0.81	25.8	C	0.59	24.9	C
8th Avenue &	WB	TR	1.02	66.7	E	0.94	47.9	D
W. 43rd Street	NB	LT	0.72	14.3	B	0.48	11.1	B
Intersection			0.85	26.5	C	0.68	20.6	C
8th Avenue &	EB	LT	0.53	26.0	C	0.45	24.7	C
W. 44th Street	NB	T	0.60	9.1	A	0.48	8.0	A
		R	0.38	8.7	A	0.28	7.5	A
Intersection			0.58	11.9	B	0.47	10.8	B
8th Avenue &	WB	TR	0.71	30.6	C	1.00	62.3	E
W. 45th Street	NB	LT	0.63	9.4	A	0.51	8.2	A
Intersection			0.66	13.8	B	0.70	24.4	C
8th Avenue &	EB	LT	0.61	27.3	C	0.58	26.8	C
W. 46th Street	NB	T	0.55	8.6	A	0.55	8.6	A
		R	0.44	9.6	A	0.26	7.4	A
Intersection			0.58	12.6	B	0.56	12.2	B
9th Avenue &	EB	T	0.94	44.6	D	0.57	26.7	C
		R	0.49	28.7	C	0.62	32.9	C
W. 42nd Street	WB	LT	0.51	16.9	B	0.55	17.5	B
	SB	LTR	0.78	23.4	C	0.78	23.1	C
Intersection			0.63	27.1	C	0.65	23.0	C
7th Avenue &	EB	TR	1.05	69.5	E	0.56	23.2	C
W. 42nd Street	WB	LT	0.60	24.3	C	0.67	25.9	C
	SB	LTR	0.57	11.3	B	0.46	10.3	B
Intersection			0.78	26.9	C	0.55	15.8	B

NB = northbound; SB = southbound; EB = eastbound; WB = westbound.
LT = left and through movements; TR = through and right movements; LTR = left, through and right movements.
L = left movement; T = through movement; R = right movement.
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Third Avenue/East 56th Street

- The eastbound approach currently operates at LOS E during the weekday PM peak hour.

Third Avenue/East 57th Street

- Eastbound through movements and westbound right-turn movements currently operate at LOS E during the weekday AM peak hour, and northbound exclusive right-turn movements currently operate at LOS E during the weekday PM peak hour.

Third Avenue/East 59th Street

- Northbound exclusive right-turns currently operate over capacity at LOS F during the weekday AM peak hour, and at LOS E during the weekday PM peak hour.

Third Avenue/East 60th Street

- Westbound exclusive right-turns currently operate at LOS E during the weekday AM and PM peak hours.

Third Avenue/East 61st Street

- The westbound approach currently operates over capacity during the weekday AM peak hour.

Second Avenue/East 57th Street

- During the weekday AM peak hour, eastbound right-turn movements currently operate over capacity at LOS F, and westbound left-turns currently operate over capacity at LOS E.
- During the weekday PM peak hour, eastbound through movements currently operate over capacity at LOS E.

Fifth Avenue/42nd Street Study Area

Fifth Avenue/East 42nd Street

- The westbound approach currently operates over capacity at LOS E during the weekday AM peak hour.

Sixth Avenue/East 42nd Street

- The westbound approach currently operates over capacity at LOS E during the weekday AM peak hour.

Madison Avenue/East 42nd Street

- The eastbound and westbound approaches both currently operate over capacity at LOS E during the weekday AM peak hour.

Broadway/Sixth Avenue/West 34th Street Study Area

Sixth Avenue/West 30th Street

- During the weekday AM peak hour, the eastbound approach operates at LOS E and the northbound approach currently operates at capacity.

Sixth Avenue/Broadway/34th Street

- During the weekday PM peak hour, southbound through movements on Broadway currently operate at capacity at LOS E.

Sixth Avenue/West 36th Street

- Eastbound left-turn movements currently operate at LOS E during the weekday AM and PM peak hours.

Eighth Avenue/West 42nd Street Study Area

Eighth Avenue/West 43rd Street

- The westbound approach currently operates over capacity at LOS E during the weekday AM peak hour.

Eighth Avenue/West 45th Street

- The westbound approach currently operates at capacity at LOS E during the weekday PM peak hour.

Seventh Avenue/West 42nd Street

- The eastbound approach currently operates over capacity at LOS E during the weekday AM peak hour.

3.15.4 Future Conditions without the Proposed Action

The “no-action” condition analysis (future conditions without the proposed action) is used as a baseline against which incremental changes generated by an action can be evaluated. This no-action condition is also commonly referred to as the “no-build” condition. Future no-build traffic growth has two components: 1) increase in traffic volumes due to the regional traffic growth, and 2) growth in traffic volumes associated with specific planned developments within the project study area. NYC Department of Transportation and the NYC Department of City Planning Manhattan Borough Office were contacted to obtain information on any planned, approved, or in-process developments within the vicinity of the study area (i.e. "soft-sites”) that may increase traffic volumes at the study intersections.

Implementation of the proposed medallion increase is anticipated to occur in phases over the next three years. Consequently, 2004, 2005, and 2006 were selected as the horizon

Table 3.15-7

Broadway/Columbus Avenue/West 65th Street Study Area (CB 7)

Project Name	Developer	Location/ Address	Type of Use	Number of Units / Non-residential Floor Area	Status
Riverside South Project	Trump	West End Avenue between West 61st and West 72nd Streets	Retail uses, theaters, offices, CF	2.1 million sq. ft. maximum	Build Year: 2003
Coliseum Redevelopment FEIS	Columbus Center Partners/ Related Co.	West 58th and West 60st Street/Columbus Circle	Office, retail, hotel, auditorium (for Lincoln Center Jazz)	1 million sq. ft. office 364,000 sq. ft. retail 250 room hotel 175,000 sq. ft. jazz	Build Year: 2003
Street width Reduction of 65th Street & enlargement of Lincoln Center facilities	Lincoln Center	West 65th Street between Broadway and Amsterdam Avenue	Lincoln center related use: ticket booth, street access to facilities along West 65th Street		Proposed
1926 Broadway	Glenwood management	East side of Broadway between West 65th and West 64th Streets	Residential and Commercial	limited to 100,000 sq. ft. of commercial retail space 232 units 180 space garage	Build Year: 2003
2 West End Avenue	Cambridge Development	West End Avenue (11th Avenue) between West 59th and West 60th Streets	Residential and Commercial	246 units; 6,734 sq. ft. retail	Build Year: 2005
West 60th – 61st Street Development	Ginsberg Development	West 60th to West 61st Streets between 10th and 11th Avenues	Residential	337 units (400,000 sq. ft.)	Build Year: 2004
Touro College BSA application		West 60th Street between Amsterdam and West End Avenues	Residential (with community facilities)	108,000 sq. ft. residential, 28,000 sq. ft. community facilities	Build Year: 2005

3rd Avenue/East 57th Street Study Area (CB 6)

Project Name	Developer	Location/ Address	Type of Use	Number of Units / Non-residential Floor Area	Status
Alexander's (Bloomberg) Tower	Vornado Realty	East side of Lexington Avenue between East 58th and East 59th Streets	Office Retail / Regional & Local Hotel Residential	280,000 sq. ft. 100,000 sq. ft. 250,000 sq. ft. 200 units	Build Year: 2005

Table 3.15-7 (Cont'd)

8th Avenue/West 42nd Street Study Area (CB 4)

Project Name	Developer	Location/ Address	Type of Use	Number of Units / Non-residential Floor Area	Status
Time Square Plaza	Milstein	West 42nd Street /Eighth Avenue	Office	830,000 sq. ft.	Build Year: 2005
Times Square Tower	Boston Properties/ Blackstone	West 42rd Street/Broadway and Seventh Avenue	Office	1,221,058 sq. ft.	Build Year: 2003
NY Times Tower	Forest City Rattner	West 40th Street/Eighth Avenue	Office	900,000 sq. ft.	Build Year: 2006
Hearst Tower		Central Park West/West 57th Street	Office and Commercial	555,541 sq. ft. commercial, 8,000 sq. ft. retail	Build Year: 2006
Alvin Ailey	Alvin Ailey Dance Foundation	West 55th Street/Ninth Avenue	Studio/Showroom Space, Theater Space	25,970 sq. ft. studio/showroom, 5,000 sq. ft. theater	Build Year: 2004
River Center		West 59th Street between Tenth and Eleventh Avenues	Residential and Commercial	1,201 units; 166,000 retail, 900,000 sq. ft. community facilities; 655 parking spaces	Build Year: 2002
West 57th Street Rezoning	Durst Organization	West 58th and West 59th Streets between Eleventh and Twelfth Avenues	Commercial, Office and Studio/Showroom Space	77,700 sq. ft. commercial; 1,135,250 sq. ft. office; 211,700 sq. ft. studio/showroom space	Build Year: 2003
Ivy Tower		345 West 42nd Street	Residential and Commercial	320 units; 3,700 sq. ft. retail; 59 parking spaces	Build Year: 2004
	J.D. Carlyle Development Corp.	West 42nd Street/Twelfth Avenue Office Tower	Office	565,0000 sq. ft. office	Build Year: 2004
Brodskey Building	Douglas Durst	West 42nd Street/Ninth Avenue	Residential and Commercial	276 units; 18,800 sq. ft. retail; 105 parking spaces.	Build Year: 2004

Broadway/6th Avenue/West 34th Street Study Area (CB 5)

Project Name	Developer	Location/ Address	Type of Use	Number of Units / Non-residential Floor Area	Status
2 Penn Plaza	Vornado Trust Realty	East 31st Street/Seventh Avenue	Commercial (expansion)	53,337 sq. ft.	Build Year: 2008

Table 3.15-7 (Cont'd)

5th Avenue/42nd Street Study Area (CB 5)

Project Name	Developer	Location/ Address	Type of Use	Number of Units / Non-residential Floor Area	Status
Mid-Manhattan Library Expansion		40th Street and Fifth Avenue	Library	117,000 sq. ft.	Build Year: 2004
Bank of America Tower	Durst Organization	West 42nd Street and Sixth Avenue	Office	Approx. 1.5 million sq. ft.	Build Year: 2008
300-310 Madison Avenue	Madison Plaza Associates	East 42nd Street and Madison Avenue	Office	1,200,000 sq. ft.	Build Year: 2003

years for all future conditions operational analyses. To estimate the weekday peak hour turning movement volumes for future no-build conditions in 2004, 2005, and 2006, a background traffic growth rate of 0.75 percent per year was applied to the 2003 existing weekday peak hour turning movement volumes. This 0.75 percent background traffic growth rate was recommended by NYC Department of Transportation. In addition, weekday peak hour traffic volumes projected to be generated by the soft sites were added to these adjusted turning movement volumes. A summary of the soft sites within the vicinity of each of the five study areas is provided in Table 3.15-7.

The resultant weekday peak hour traffic volumes at each study intersection within the five study areas under future no-build conditions in 2004, 2005, and 2006 are shown in Figures A-11 through A-40 of Appendix A.

The future No-Build Conditions analysis also accounted for the proposed re-striping of the eastbound approach to the Broadway/Columbus Avenue/West 65th Street intersection in 2006 to accommodate three travel lanes, as well as on-street parking on the north side of West 65th Street.

No-Build Traffic Condition Analysis

Level of service analyses for future year 2004, 2005, and 2006 no-build conditions were then performed for all of the study intersections within each of the five key study intersection areas using the forecasted weekday peak hour turning movement volumes. Tables 3.15-8 through 3.15-22 summarize the weekday peak hour operational characteristics (including volume-to-capacity ratios, average control delays, and corresponding levels-of-service) for intersections within each of the five study areas under future year 2004, 2005, and 2006 no-build conditions. Based on these LOS analyses, significant adverse changes in the weekday peak hour levels-of-service (with respect to the 2003 existing conditions) are projected at the following intersections under the future year 2004, 2005, and 2006 no-build Conditions:

Broadway/Columbus Avenue/West 65th Street Study Area

<u>Broadway/West 62nd Street</u>

- Weekday AM peak hour delays for westbound movements are projected to increase from the LOS E range under the 2003 existing conditions to the LOS F range under 2004, 2005, and 2006 no-build conditions.

<u>Central Park West/West 65th Street</u>

- Weekday PM peak hour delays for northbound movements are projected to increase from the LOS C range under the 2003 existing conditions to beyond the mid-level LOS D range under the 2006 no-build conditions.

Table 3.15-8

2004 NO BUILD AND BUILD TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
Broadway/Columbus Avenue/West 65th Street Study Area

Intersection	Direction	Movement	AM Peak Hour									PM Peak Hour								
			No Build Conditions			Build Conditions			Build Mitigation			No Build Conditions			Build Conditions			Build Mitigation		
			V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS
Columbus Avenue & W. 61st Street	SB	LT	0.56	8.5	A	0.56	8.5	A				0.59	8.9	A	0.59	9.0	A			
Intersection			*	8.5	A	*	8.5	A				*	8.9	A	*	9.0	A			
Columbus Avenue & W. 62nd Street	EB	R	0.18	21.3	C	0.19	21.3	C				0.23	21.8	C	0.23	21.8	C			
	WB	LT	0.48	25.2	C	0.48	25.2	C				0.32	22.7	C	0.33	22.7	C			
	SB	TR	0.48	7.9	A	0.49	8.0	A				0.50	8.2	A	0.50	8.2	A			
Intersection			0.48	11.2	B	0.49	11.3	B				0.43	11.1	B	0.44	11.1	B			
Columbus Avenue & W. 63rd Street	WB	L	0.31	22.5	C	0.32	22.5	C				0.35	22.8	C	0.35	22.9	C			
	SB	T	0.41	7.4	A	0.41	7.5	A				0.36	7.2	A	0.36	7.2	A			
Intersection			0.37	9.8	A	0.38	9.8	A				0.36	10.8	B	0.36	10.8	B			
Columbus Avenue & W. 64th Street	SB	T	0.38	5.1	A	0.38	5.1	A				0.29	4.7	A	0.29	4.7	A			
Intersection			*	5.1	A	*	5.1	A				*	4.7	A	*	4.7	A			
Columbus Avenue & W. 66th Street	WB	LT	0.87	25.9	C	0.87	26.5	C				0.94	33.9	C	0.94	34.5	C			
	SB	TR	0.71	28.4	C	0.71	28.5	C				0.97	48.9	D	0.98	50.2	D			
Intersection			0.81	27.7	C	0.82	27.9	C				0.95	42.7	D	0.96	43.7	D			
Columbus Avenue & W. 67th Street	WB	LT	0.59	19.2	B	0.59	19.3	B				0.52	17.6	B	0.53	17.7	B			
	SB	TR	0.53	18.3	B	0.53	18.3	B				0.67	20.9	C	0.67	21.0	C			
Intersection			0.56	18.5	B	0.57	18.5	B				0.59	20.1	C	0.59	20.1	C			
Columbus Avenue & W. 68th Street	EB	TR	0.35	16.8	B	0.35	16.8	B				0.35	16.6	B	0.36	16.7	B			
	SB	LT	0.45	15.0	B	0.45	15.0	B				0.62	17.7	B	0.63	17.8	B			
Intersection			0.40	15.2	B	0.40	15.3	B				0.48	17.5	B	0.49	17.6	B			
Columbus Avenue & W. 69th Street	WB	LT	0.09	15.4	B	0.09	15.4	B				0.30	17.8	B	0.30	17.8	B			
	SB	TR	0.50	13.4	B	0.50	13.4	B				0.60	15.1	B	0.61	15.1	B			
Intersection			0.30	13.4	B	0.31	13.5	B				0.46	15.5	B	0.46	15.5	B			
Broadway & W. 61st Street	EB	LTR	0.16	18.0	B	0.16	18.0	B				0.32	20.0	B	0.32	20.0	B			
	NB	TR	0.39	10.6	B	0.39	10.6	B				0.44	11.1	B	0.45	11.1	B			
	SB	LT	0.57	12.2	B	0.57	12.3	B				0.67	14.0	B	0.67	14.1	B			
Intersection			0.39	11.9	B	0.39	11.9	B				0.51	13.3	B	0.52	13.4	B			
Broadway & W. 62nd Street	WB	LTR	1.08	88.7	F	1.09	90.7	F				0.56	24.5	C	0.57	24.6	C			
	NB	LT	0.54	12.6	B	0.55	12.7	B				0.62	13.6	B	0.63	13.7	B			
	SB	TR	0.63	13.4	B	0.63	13.4	B				0.57	12.5	B	0.58	12.5	B			
Intersection			0.83	30.6	C	0.83	31.1	C				0.59	14.5	B	0.60	14.6	B			
Broadway & W. 63rd Street	WB	LTR	0.52	22.5	C	0.53	22.6	C				0.56	23.2	C	0.57	23.3	C			
	NB	LT	0.44	11.2	B	0.44	11.2	B				0.55	12.5	B	0.56	12.6	B			
	SB	TR	0.55	12.1	B	0.55	12.2	B				0.50	11.6	B	0.50	11.6	B			
Intersection			0.54	13.9	B	0.54	14.0	B				0.56	14.4	B	0.56	14.4	B			
Broadway & W. 64th Street	NB	TR	0.69	27.9	C	0.69	28.1	C				0.73	28.6	C	0.73	28.8	C			
	SB	LT	0.50	5.5	A	0.51	5.5	A				0.42	5.0	A	0.43	5.0	A			
Intersection			*	14.2	B	*	14.3	B				*	15.5	B	*	15.6	B			

NB = northbound; SB = southbound; EB = eastbound; WB = westbound
LT = left-turn and through movement; TR = through and right-turn movement; LTR = left-turn, through, and right-turn movement
L = left-turn movement; T = through movement; R = right-turn movement
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Table 3.15-8 (Cont'd)

2004 NO BUILD AND BUILD TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
Broadway/Columbus Avenue/West 65th Street Study Area

Intersection	Direction	Movement	AM Peak Hour									PM Peak Hour								
			No Build Conditions			Build Conditions			Build Mitigation			No Build Conditions			Build Conditions			Build Mitigation		
			V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS
Broadway &	EB	TR	0.44	27.9	C	0.44	27.9	C				0.46	28.1	C	0.46	28.1	C			
Columbus Avenue &		R	0.57	34.4	C	0.57	34.6	C				0.56	33.8	C	0.57	34.0	C			
W. 65th Street	NB	TR	0.61	30.5	C	0.62	30.6	C				0.77	34.6	C	0.77	34.8	C			
	SB (Bway)	T	0.83	35.9	D	0.84	36.1	D				0.61	30.1	C	0.62	30.2	C			
	SB (CLBS)	LT	0.91	35.6	D	0.92	35.7	D				0.93	37.7	D	0.93	38.4	D			
Intersection			*	33.6	C	*	34.0	C				*	35.0	C	*	35.6	D			
Broadway &	WB	LTR	0.58	26.0	C	0.58	26.0	C				0.64	27.3	C	0.64	27.3	C			
W. 66th Street	NB	LT	0.42	8.5	A	0.42	8.5	A				0.48	9.0	A	0.48	9.0	A			
	SB	TR	0.57	9.8	A	0.58	9.9	A				0.45	8.6	A	0.45	8.6	A			
Intersection			0.58	13.2	B	0.58	13.2	B				0.54	13.3	B	0.54	13.3	B			
Broadway &	WB	LTR	0.60	29.3	C	0.60	29.3	C				0.71	33.8	C	0.71	33.8	C			
W. 67th Street	NB	LT	0.38	8.2	A	0.39	8.2	A				0.46	8.7	A	0.46	8.7	A			
	SB	TR	0.52	9.2	A	0.52	9.3	A				0.47	8.7	A	0.47	8.8	A			
Intersection			0.55	11.3	B	0.55	11.3	B				0.56	12.2	B	0.56	12.2	B			
Broadway &	EB	LTR	0.59	28.9	C	0.58	28.4	C				0.48	25.6	C	0.48	25.7	C			
W. 68th Street	NB	TR	0.37	8.0	A	0.38	8.1	A				0.46	8.7	A	0.47	8.7	A			
	SB	LT	0.59	10.1	B	0.59	10.2	B				0.55	9.8	A	0.56	9.9	A			
Intersection			0.59	11.7	B	0.59	11.7	B				0.52	10.9	B	0.53	11.0	B			
Broadway &	WB	LTR	0.29	22.3	C	0.29	22.3	C				0.44	24.8	C	0.44	24.8	C			
W. 69th Street	NB	LT	0.41	8.4	A	0.42	8.4	A				0.52	9.3	A	0.52	9.3	A			
	SB	TR	0.51	9.1	A	0.51	9.2	A				0.41	8.2	A	0.41	8.2	A			
Intersection			0.42	9.7	A	0.43	9.8	A				0.49	10.3	B	0.49	10.4	B			
Central Park West &	EB	LTR	0.93	46.7	D	0.93	47.5	D				0.80	35.4	D	0.80	35.6	D			
W. 65th Street	NB	TR	0.63	21.1	C	0.63	21.2	C				0.96	41.3	D	0.97	42.6	D			
	SB	LT	0.35	5.2	A	0.36	5.2	A				-	-	-	-	-	-			
		DEFL	-	-	-	-	-	-				0.46	26.4	C	0.47	26.8	C			
		T	-	-	-	-	-	-				0.42	5.9	A	0.42	6.0	A			
Intersection			0.62	25.3	C	0.62	25.6	C				0.77	30.7	C	0.78	31.3	C			
Amsterdam Ave &	EB	LT	0.71	28.0	C	0.71	28.2	C				0.50	23.3	C	0.51	23.3	C			
W. 65th Street	NB	TR	0.46	9.6	A	0.46	9.7	A				0.69	12.4	B	0.70	12.4	B			
Intersection			0.56	14.9	B	0.56	14.9	B				0.62	14.5	B	0.62	14.6	B			

NB = northbound; SB = southbound; EB = eastbound; WB = westbound
LT = left-turn and through movement; TR = through and right-turn movement; LTR = left-turn, through, and right-turn movement
L = left-turn movement; T = through movement; R = right-turn movement
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Table 3.15-9

2005 NO BUILD AND BUILD TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
Broadway/Columbus Avenue/West 65th Street Study Area

Intersection	Direction	Movement	AM Peak Hour									PM Peak Hour								
			No Build Conditions			Build Conditions			Build Mitigation			No Build Conditions			Build Conditions			Build Mitigation		
			V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS
Columbus Avenue & W. 61st Street	SB	LT	0.57	8.6	A	0.58	8.7	A				0.60	9.0	A	0.60	9.1	A			
Intersection			*	8.6	A	*	8.7	A				*	9.0	A	*	9.1	A			
Columbus Avenue & W. 62nd Street	EB	R	0.21	21.6	C	0.22	21.6	C				0.25	22.1	C	0.26	22.1	C			
	WB	LT	0.48	25.2	C	0.49	25.3	C				0.33	22.7	C	0.33	22.8	C			
	SB	TR	0.49	8.0	A	0.50	8.1	A				0.50	8.2	A	0.51	8.3	A			
Intersection			0.49	11.4	B	0.50	11.4	B				0.44	11.2	B	0.44	11.3	B			
Columbus Avenue & W. 63rd Street	WB	L	0.32	22.5	C	0.32	22.6	C				0.35	22.9	C	0.36	23.0	C			
	SB	T	0.42	7.5	A	0.42	7.5	A				0.36	7.2	A	0.37	7.2	A			
Intersection			0.38	9.8	A	0.39	9.9	A				0.36	10.8	B	0.37	10.9	B			
Columbus Avenue & W. 64th Street	SB	T	0.39	5.1	A	0.39	5.2	A				0.29	4.7	A	0.29	4.7	A			
Intersection			*	5.1	A	*	5.2	A				*	4.7	A	*	4.7	A			
Columbus Avenue & W. 66th Street	WB	LT	0.87	26.6	C	0.88	27.6	C				0.95	35.3	D	0.96	36.7	D			
	SB	TR	0.72	28.6	C	0.73	28.8	C				0.98	50.7	D	0.99	53.3	D			
Intersection			0.82	28.0	C	0.83	28.4	C				0.96	44.3	D	0.97	46.5	D			
Columbus Avenue & W. 67th Street	WB	LT	0.60	19.3	B	0.60	19.5	B				0.53	17.7	B	0.53	17.8	B			
	SB	TR	0.54	18.3	B	0.54	18.4	B				0.67	21.0	C	0.68	21.2	C			
Intersection			0.57	18.6	B	0.58	18.6	B				0.59	20.2	C	0.60	20.3	C			
Columbus Avenue & W. 68th Street	EB	TR	0.35	16.8	B	0.36	16.9	B				0.35	16.7	B	0.36	16.7	B			
	SB	LT	0.45	15.1	B	0.46	15.1	B				0.63	17.8	B	0.64	17.9	B			
Intersection			0.40	15.3	B	0.41	15.3	B				0.49	17.6	B	0.49	17.7	B			
Columbus Avenue & W. 69th Street	WB	LT	0.09	15.4	B	0.09	15.4	B				0.30	17.8	B	0.31	17.9	B			
	SB	TR	0.50	13.4	B	0.51	13.5	B				0.61	15.2	B	0.62	15.3	B			
Intersection			0.31	13.5	B	0.31	13.5	B				0.46	15.5	B	0.47	15.6	B			
Broadway & W. 61st Street	EB	LTR	0.17	18.0	B	0.17	18.0	B				0.32	20.0	B	0.33	20.1	C			
	NB	TR	0.39	10.6	B	0.40	10.7	B				0.45	11.1	B	0.46	11.2	B			
	SB	LT	0.57	12.3	B	0.58	12.4	B				0.67	14.1	B	0.68	14.2	B			
Intersection			0.39	11.9	B	0.40	12.0	B				0.52	13.4	B	0.53	13.5	B			
Broadway & W. 62nd Street	WB	LTR	1.09	90.7	F	1.10	95.4	F	1.07	82.5	F	0.57	24.6	C	0.57	24.7	C			
	NB	LT	0.54	12.6	B	0.56	12.8	B	0.57	13.7	B	0.63	13.6	B	0.64	13.9	B			
	SB	TR	0.63	13.4	B	0.64	13.6	B	0.66	14.5	B	0.58	12.5	B	0.59	12.7	B			
Intersection			0.83	31.1	C	0.84	32.2	C	0.84	30.0	C	0.60	14.6	B	0.61	14.7	B			
Broadway & W. 63rd Street	WB	LTR	0.53	22.6	C	0.53	22.7	C				0.57	23.3	C	0.58	23.5	C			
	NB	LT	0.44	11.2	B	0.45	11.3	B				0.56	12.5	B	0.57	12.7	B			
	SB	TR	0.55	12.2	B	0.56	12.3	B				0.50	11.6	B	0.51	11.7	B			
Intersection			0.54	14.0	B	0.55	14.1	B				0.56	14.5	B	0.57	14.6	B			
Broadway & W. 64th Street	NB	TR	0.69	28.0	C	0.71	28.4	C				0.73	28.8	C	0.74	29.1	C			
	SB	LT	0.51	5.5	A	0.51	5.6	A				0.43	5.0	A	0.43	5.0	A			
Intersection			*	14.3	B	*	14.5	B				*	15.6	B	*	15.8	B			

NB = northbound; SB = southbound; EB = eastbound; WB = westbound
LT = left-turn and through movement; TR = through and right-turn movement; LTR = left-turn, through, and right-turn movement
L = left-turn movement; T = through movement; R = right-turn movement
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Table 3.15-9 (Cont'd)

2005 NO BUILD AND BUILD TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
Broadway/Columbus Avenue/West 65th Street Study Area

Intersection	Direction	Movement	AM Peak Hour									PM Peak Hour								
			2005 No Build Conditions			2005 Build Conditions			Build Mitigation			2005 No Build Conditions			2005 Build Conditions			Build Mitigation		
			V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS
Broadway &	EB	TR	0.44	27.9	C	0.45	28.0	C				0.46	28.1	C	0.47	28.2	C			
Columbus Avenue &		R	0.58	34.8	C	0.59	35.1	D				0.57	33.9	C	0.57	34.2	C			
W. 65th Street	NB	TR	0.62	30.6	C	0.63	30.8	C				0.77	34.8	C	0.79	35.3	D			
	SB (Bway)	T	0.84	36.5	D	0.85	37.0	D				0.62	30.2	C	0.63	30.3	C			
	SB (CLBS)	LT	0.92	36.1	D	0.94	37.1	D				0.94	38.5	D	0.95	39.9	D			
Intersection			*	34.3	C	*	35.1	D				*	35.7	D	*	36.7	D			
Broadway &	WB	LTR	0.59	26.1	C	0.60	26.2	C				0.65	27.5	C	0.65	27.6	C			
W. 66th Street	NB	LT	0.42	8.5	A	0.43	8.6	A				0.48	9.0	A	0.50	9.2	A			
	SB	TR	0.58	9.9	A	0.59	10.0	B				0.46	8.6	A	0.46	8.7	A			
Intersection			0.58	13.3	B	0.59	13.4	B				0.55	13.4	B	0.56	13.4	B			
Broadway &	WB	LTR	0.60	29.4	C	0.61	29.7	C				0.72	34.3	C	0.73	34.6	C			
W. 67th Street	NB	LT	0.39	8.2	A	0.39	8.2	A				0.46	8.7	A	0.47	8.8	A			
	SB	TR	0.53	9.3	A	0.54	9.4	A				0.47	8.8	A	0.48	8.8	A			
Intersection			0.56	11.4	B	0.56	11.5	B				0.57	12.3	B	0.58	12.4	B			
Broadway &	EB	LTR	0.59	28.9	C	0.59	28.7	C				0.48	25.7	C	0.48	25.9	C			
W. 68th Street	NB	TR	0.38	8.0	A	0.38	8.1	A				0.47	8.7	A	0.47	8.8	A			
	SB	LT	0.60	10.3	B	0.61	10.5	B				0.56	9.9	A	0.57	10.0	A			
Intersection			0.60	11.8	B	0.60	11.8	B				0.53	11.0	B	0.54	11.1	B			
Broadway &	WB	LTR	0.30	22.5	C	0.30	22.5	C				0.44	24.9	C	0.45	25.0	C			
W. 69th Street	NB	LT	0.42	8.4	A	0.42	8.5	A				0.52	9.4	A	0.53	9.5	A			
	SB	TR	0.52	9.2	A	0.53	9.3	A				0.41	8.2	A	0.42	8.3	A			
Intersection			0.43	9.8	A	0.44	9.9	A				0.49	10.4	B	0.50	10.5	B			
Central Park West &	EB	LTR	0.94	47.9	D	0.95	50.3	D				0.81	35.8	D	0.82	36.2	D			
W. 65th Street	NB	TR	0.63	21.2	C	0.64	21.4	C				0.97	42.6	D	0.98	45.8	D			
	SB	LT	0.36	5.2	A	0.36	5.2	A				-	-	-	-	-	-			
		DEFL	-	-	-	-	-	-				0.47	26.8	C	0.48	27.5	C			
		T	-	-	-	-	-	-				0.42	6.0	A	0.43	6.0	A			
Intersection			0.63	25.7	C	0.63	26.7	C				0.78	31.4	C	0.79	32.8	C			
Amsterdam Ave &	EB	LT	0.71	28.2	C	0.72	28.6	C				0.51	23.3	C	0.52	23.5	C			
W. 65th Street	NB	TR	0.47	9.7	A	0.47	9.7	A				0.71	12.6	B	0.72	12.7	B			
Intersection			0.57	14.9	B	0.58	15.1	B				0.63	14.7	B	0.63	14.8	B			

NB = northbound; SB = southbound; EB = eastbound; WB = westbound
LT = left-turn and through movement; TR = through and right-turn movement; LTR = left-turn, through, and right-turn movement
L = left-turn movement; T = through movement; R = right-turn movement
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Table 3.15-10

2006 NO BUILD AND BUILD TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
Broadway/Columbus Avenue/West 65th Street Study Area

Intersection	Direction	Movement	AM Peak Hour									PM Peak Hour								
			No Build Conditions			Build Conditions			Build Mitigation			No Build Conditions			Build Conditions			Build Mitigation		
			V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS
Columbus Avenue & W. 61st Street	SB	LT	0.59	8.8	A	0.60	8.9	A				0.61	9.1	A	0.62	9.3	A			
Intersection			*	8.8	A	*	8.9	A				*	9.1	A	*	9.3	A			
Columbus Avenue & W. 62nd Street	EB	R	0.22	21.6	C	0.22	21.7	C				0.26	22.1	C	0.26	22.2	C			
	WB	LT	0.49	25.3	C	0.50	25.4	C				0.33	22.8	C	0.33	22.8	C			
	SB	TR	0.51	8.2	A	0.52	8.2	A				0.51	8.3	A	0.52	8.4	A			
Intersection			0.50	11.4	B	0.51	11.5	B				0.44	11.2	B	0.45	11.3	B			
Columbus Avenue & W. 63rd Street	WB	L	0.32	22.5	C	0.33	22.6	C				0.36	22.9	C	0.37	23.0	C			
	SB	T	0.44	7.6	A	0.45	7.7	A				0.37	7.2	A	0.38	7.3	A			
Intersection			0.39	9.9	A	0.40	10.0	A				0.37	10.8	B	0.37	10.9	B			
Columbus Avenue & W. 64th Street	SB	T	0.41	5.2	A	0.41	5.3	A				0.30	4.7	A	0.30	4.7	A			
Intersection			*	5.2	A	*	5.3	A				*	4.7	A	*	4.7	A			
Columbus Avenue & W. 66th Street	WB	LT	0.88	27.3	C	0.89	28.6	C				0.96	36.5	D	0.97	39.4	D			
	SB	TR	0.74	29.0	C	0.75	29.3	C				1.00	54.1	D	1.01	58.5	E			
Intersection			0.83	28.5	C	0.85	29.1	C				0.97	46.9	D	0.98	50.6	D			
Columbus Avenue & W. 67th Street	WB	LT	0.60	19.4	B	0.61	19.7	B				0.53	17.7	B	0.54	17.9	B			
	SB	TR	0.55	18.6	B	0.56	18.7	B				0.68	21.3	C	0.69	21.5	C			
Intersection			0.58	18.7	B	0.59	18.9	B				0.60	20.4	C	0.61	20.6	C			
Columbus Avenue & W. 68th Street	EB	TR	0.35	16.8	B	0.36	16.9	B				0.36	16.7	B	0.36	16.8	B			
	SB	LT	0.47	15.2	B	0.48	15.3	B				0.64	17.9	B	0.65	18.1	B			
Intersection			0.41	15.4	B	0.42	15.5	B				0.49	17.7	B	0.50	17.9	B			
Columbus Avenue & W. 69th Street	WB	LT	0.09	15.4	B	0.09	15.4	B				0.31	17.9	B	0.31	17.9	B			
	SB	TR	0.52	13.6	B	0.53	13.7	B				0.62	15.3	B	0.63	15.4	B			
Intersection			0.32	13.7	B	0.32	13.7	B				0.47	15.6	B	0.48	15.8	B			
Broadway & W. 61st Street	EB	LTR	0.17	18.0	B	0.17	18.0	B				0.32	20.1	C	0.33	20.1	C			
	NB	TR	0.39	10.7	B	0.41	10.8	B				0.45	11.1	B	0.46	11.3	B			
	SB	LT	0.58	12.3	B	0.59	12.5	B				0.68	14.2	B	0.69	14.4	B			
Intersection			0.40	12.0	B	0.40	12.1	B				0.52	13.5	B	0.53	13.6	B			
Broadway & W. 62nd Street	WB	LTR	1.10	93.3	F	1.12	101.6	F	1.09	88.7	F	0.57	24.7	C	0.58	24.9	C			
	NB	LT	0.55	12.7	B	0.57	13.0	B	0.58	14.0	B	0.63	13.7	B	0.66	14.2	B			
	SB	TR	0.64	13.5	B	0.65	13.7	B	0.67	14.7	B	0.58	12.6	B	0.59	12.8	B			
Intersection			0.84	31.8	C	0.86	33.8	C	0.86	31.6	C	0.60	14.7	B	0.62	14.9	B			
Broadway & W. 63rd Street	WB	LTR	0.53	22.6	C	0.54	22.9	C				0.57	23.3	C	0.59	23.6	C			
	NB	LT	0.44	11.2	B	0.46	11.4	B				0.56	12.6	B	0.58	12.9	B			
	SB	TR	0.55	12.2	B	0.57	12.4	B				0.50	11.6	B	0.51	11.8	B			
Intersection			0.54	14.0	B	0.56	14.2	B				0.57	14.5	B	0.58	14.7	B			
Broadway & W. 64th Street	NB	TR	0.70	28.2	C	0.72	28.7	C				0.74	28.9	C	0.76	29.6	C			
	SB	LT	0.51	5.6	A	0.52	5.6	A				0.43	5.0	A	0.44	5.1	A			
Intersection			*	14.4	B	*	14.7	B				*	15.7	B	*	16.1	B			

NB = northbound; SB = southbound; EB = eastbound; WB = westbound
LT = left-turn and through movement; TR = through and right-turn movement; LTR = left-turn, through, and right-turn movement
L = left-turn movement; T = through movement; R = right-turn movement
* HCS outputs do not provide this information.

Table 3.15-10 (Cont'd)

2006 NO BUILD AND BUILD TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
Broadway/Columbus Avenue/West 65th Street Study Area

Intersection	Direction	Movement	AM Peak Hour									PM Peak Hour								
			No Build Conditions			Build Conditions			Build Mitigation			No Build Conditions			Build Conditions			Build Mitigation		
			V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS
Broadway &	EB	TR	0.65	31.4	C	0.66	31.7	C				0.66	31.7	C	0.68	31.9	C			
Columbus Ave &	NB	TR	0.62	30.7	C	0.64	31.0	C				0.78	35.0	D	0.80	35.8	D			
W. 65th Street	SB (Bway)	T	0.87	37.6	D	0.88	38.7	D				0.63	30.3	C	0.64	30.5	C			
	SB (CLBS)	LT	0.95	38.4	D	0.97	40.7	D				0.95	40.0	D	0.97	42.5	D			
Intersection			*	36.2	D	*	37.9	D				*	36.7	D	*	38.6	D			
Broadway &	WB	LTR	0.59	26.1	C	0.60	26.3	C				0.65	27.6	C	0.65	27.7	C			
W. 66th Street	NB	LT	0.43	8.6	A	0.44	8.7	A				0.49	9.1	A	0.50	9.3	A			
	SB	TR	0.59	10.1	B	0.61	10.3	B				0.46	8.7	A	0.47	8.8	A			
Intersection			0.59	13.4	B	0.60	13.5	B				0.55	13.4	B	0.56	13.5	B			
Broadway &	WB	LTR	0.60	29.6	C	0.61	29.8	C				0.72	34.5	C	0.73	34.9	C			
W. 67th Street	NB	LT	0.39	8.2	A	0.40	8.3	A				0.47	8.8	A	0.48	8.9	A			
	SB	TR	0.54	9.4	A	0.55	9.6	A				0.49	9.0	A	0.49	8.9	A			
Intersection			0.57	11.5	B	0.58	11.6	B				0.58	12.4	B	0.58	12.5	B			
Broadway &	EB	LTR	0.58	28.6	C	0.60	29.0	C				0.49	25.8	C	0.50	26.1	C			
W. 68th Street	NB	TR	0.38	8.1	A	0.39	8.1	A				0.47	8.7	A	0.48	8.8	A			
	SB	LT	0.62	10.5	B	0.63	10.7	B				0.57	10.0	A	0.59	10.2	B			
Intersection			0.60	11.8	B	0.62	12.0	B				0.54	11.0	B	0.55	11.2	B			
Broadway &	WB	LTR	0.30	22.5	C	0.30	22.5	C				0.44	24.9	C	0.45	25.0	C			
W. 69th Street	NB	LT	0.42	8.5	A	0.43	8.6	A				0.53	9.4	A	0.54	9.6	A			
	SB	TR	0.53	9.4	A	0.54	9.5	A				0.41	8.3	A	0.42	8.3	A			
Intersection			0.44	9.9	A	0.45	10.0	A				0.50	10.4	B	0.51	10.5	B			
Central Park West &	EB	LTR	0.94	48.9	D	0.96	52.1	D				0.81	36.0	D	0.83	37.0	D	0.83	37.0	D
W. 65th Street	NB	TR	0.65	21.4	C	0.66	21.8	C				1.01	52.7	D	1.03	58.9	E	1.00	49.8	D
	SB	LT	0.36	5.2	A	0.37	5.3	A				-	-	-	-	-	-	-	-	-
		DEFL	-	-	-	-	-	-				0.49	28.6	C	0.50	29.6	C	0.51	29.7	C
		T	-	-	-	-	-	-				0.43	6.1	A	0.45	6.2	A	0.45	6.2	A
Intersection			0.63	26.2	C	0.65	27.4	C				0.80	36.0	D	0.82	38.9	D	0.81	35.2	D
Amsterdam Ave &	EB	LT	0.72	28.4	C	0.73	28.9	C				0.51	23.4	C	0.52	23.5	C			
W. 65th Street	NB	TR	0.47	9.7	A	0.48	9.8	A				0.72	12.8	B	0.73	13.0	B			
Intersection			0.57	15.0	B	0.58	15.2	B				0.63	14.8	B	0.64	15.0	B			

NB = northbound; SB = southbound; EB = eastbound; WB = westbound
LT = left-turn and through movement; TR = through and right-turn movement; LTR = left-turn, through, and right-turn movement
L = left-turn movement; T = through movement; R = right-turn movement
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Table 3.15-11

2004 NO BUILD AND BUILD TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
3rd Avenue/East 57th Street Study Area

Intersection	Direction	Movement	AM Peak Hour									PM Peak Hour								
			No Build Conditions			Build Conditions			Build Mitigation			No Build Conditions			Build Conditions			Build Mitigation		
			V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS
3rd Avenue &	WB	TR	0.44	17.7	B	0.44	17.7	B				0.36	16.7	B	0.37	16.8	B			
E. 53rd Street		R	0.82	65.3	E	0.83	66.8	E				0.85	70.1	E	0.86	71.0	E			
	NB	LT	0.99	33.5	C	0.99	35.1	D				0.86	21.3	C	0.86	21.5	C			
Intersection			0.71	32.3	C	0.72	33.6	C				0.61	23.0	C	0.61	23.2	C			
3rd Avenue &	EB	LT	0.50	18.6	B	0.50	18.7	B				0.73	23.5	C	0.74	23.8	C			
E. 54th Street	NB	T	0.87	21.7	C	0.87	22.0	C				0.94	27.1	C	0.94	27.7	C			
		R	0.44	16.6	B	0.45	16.6	B				0.58	20.5	C	0.58	20.7	C			
Intersection			0.68	20.8	C	0.69	21.1	C				0.83	25.7	C	0.84	26.3	C			
3rd Avenue &	WB	TR	1.00	64.6	E	1.00	66.5	E				0.98	60.1	E	0.99	62.3	E			
E. 55th Street	NB	LT	0.85	15.5	B	0.85	15.7	B				0.96	23.0	C	0.96	24.0	C			
Intersection			0.91	23.4	C	0.92	23.9	C				0.97	29.0	C	0.97	30.2	C			
3rd Avenue &	EB	LT	0.95	50.7	D	0.96	53.1	D				1.00	62.9	E	1.02	66.3	E			
E. 56th Street	NB	T	0.71	13.9	B	0.72	14.0	B				0.94	22.7	C	0.94	23.4	C			
		R	0.57	15.9	B	0.58	16.0	B				0.17	9.7	A	0.17	9.7	A			
Intersection			0.82	20.5	C	0.82	21.0	C				0.97	30.0	C	0.98	31.2	C			
3rd Avenue &	EB	DEFL	0.85	55.0	D	0.86	55.5	E	0.86	54.8	D	-	-	-	-	-	-			
E. 57th Street		T	1.10	88.9	F	1.11	93.7	F	1.06	76.0	E	-	-	-	-	-	-			
		LT	-	-	-	-	-	-			-	1.03	58.0	E	1.04	60.6	E			
	WB	T	0.95	49.0	D	0.95	49.7	D	0.92	43.7	D	0.64	31.0	C	0.65	31.1	C			
		R	0.96	70.3	E	0.97	71.2	E	0.93	61.1	E	0.33	27.8	C	0.33	27.8	C			
	NB	LTR	0.97	35.9	D	0.98	37.4	D	1.01	44.6	D	0.83	24.3	C	0.83	24.5	C			
		R	0.41	21.9	C	0.42	22.0	C	0.42	22.0	C	0.93	61.1	E	0.93	61.9	E			
Intersection			*	47.5	D	*	49.1	D	*	49.4	D	*	35.0	C	*	35.7	D			
3rd Avenue &	EB	LT	0.47	18.2	B	0.47	18.2	B				0.54	19.3	B	0.55	19.3	B			
E. 58th Street	NB	TR	0.87	21.7	C	0.87	21.9	C				0.72	17.9	B	0.73	18.0	B			
		R	0.26	14.1	B	0.27	14.2	B				0.50	17.8	B	0.50	17.9	B			
Intersection			0.67	20.9	C	0.67	21.1	C				0.63	18.2	B	0.64	18.3	B			
3rd Avenue &	EB	LT	0.58	19.4	B	0.58	19.4	B				0.40	16.9	B	0.40	17.0	B			
E. 59th Street	NB	TR	0.78	19.2	B	0.79	19.3	B				0.72	17.9	B	0.73	18.0	B			
		R	1.05	88.1	F	1.06	88.8	F				0.99	76.2	E	0.99	77.0	E			
Intersection			0.68	27.4	C	0.68	27.6	C				0.56	23.8	C	0.57	23.9	C			
3rd Avenue &	WB	TR	0.69	22.2	C	0.69	22.3	C				0.70	22.4	C	0.70	22.5	C			
E. 60th Street		R	0.90	74.7	E	0.90	74.7	E				0.92	76.1	E	0.93	77.0	E			
	NB	LT	0.58	15.6	B	0.58	15.7	B				0.48	14.6	B	0.49	14.6	B			
Intersection			0.63	20.9	C	0.64	21.0	C				0.59	21.3	C	0.59	21.4	C			
3rd Avenue &	WB	TR	1.01	56.8	E	1.01	58.2	E				0.63	24.2	C	0.63	24.3	C			
E. 61 Street	NB	LT	0.60	12.3	B	0.61	12.4	B				0.50	11.2	B	0.51	11.3	B			
Intersection			0.78	25.3	C	0.79	25.7	C				0.56	14.4	B	0.56	14.4	B			
2nd Avenue &	EB	T	0.68	35.6	D	0.69	35.8	D	0.66	34.2	C	1.07	78.7	E	1.08	81.3	F			
E. 57th Street		R	1.06	103.0	F	1.07	106.2	F	1.01	89.2	F	0.69	39.4	D	0.70	39.6	D			
	WB	DEFL	1.07	72.0	E	1.08	75.3	E	1.06	67.3	E	0.45	22.2	C	0.45	22.3	C			
		T	0.57	16.4	B	0.57	16.4	B	0.56	15.6	B	0.37	16.8	B	0.37	16.8	B			
	SB	LTR	0.77	22.8	C	0.77	22.8	C	0.80	24.2	C	0.55	15.3	B	0.55	15.3	B			
Intersection			0.99	33.7	C	1.00	34.4	C	0.99	32.9	C	0.77	35.3	D	0.78	36.1	D			
Lexington Avenue &	EB	TR	0.79	27.3	C	0.80	27.6	C				0.94	37.5	D	0.95	38.5	D			
E. 57th Street	WB	LT	0.83	28.2	C	0.84	28.4	C				0.60	21.8	C	0.60	21.9	C			
	SB	LT	0.90	23.5	C	0.91	24.0	C				0.88	21.6	C	0.89	21.9	C			
		R	0.47	15.3	B	0.47	15.3	B				0.31	12.4	B	0.31	12.5	B			
Intersection			0.87	25.1	C	0.87	25.5	C				0.91	25.8	C	0.91	26.2	C			

NB = northbound; SB = southbound; EB = eastbound; WB = westbound
LT = left-turn and through movement; TR = through and right-turn movement; LTR = left-turn, through, and right-turn movement
L = left-turn movement; T = through movement; R = right-turn movement
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Table 3.15-12

2005 NO BUILD AND BUILD TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
3rd Avenue/East 57th Street Study Area

Intersection	Direction	Movement	AM Peak Hour									PM Peak Hour								
			No Build Conditions			Build Conditions			Build Mitigation			No Build Conditions			Build Conditions			Build Mitigation		
			V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS
3rd Avenue &	WB	TR	0.44	17.7	B	0.45	17.8	B				0.37	16.8	B	0.37	16.8	B			
E. 53rd Street		R	0.83	66.8	E	0.84	68.4	E				0.86	71.0	E	0.87	72.8	E			
	NB	LT	1.00	35.9	D	1.01	39.3	D				0.87	21.7	C	0.88	22.2	C			
Intersection			0.72	34.3	C	0.73	37.0	D				0.62	23.3	C	0.62	23.8	C			
3rd Avenue &	EB	LT	0.50	18.7	B	0.51	18.9	B				0.73	23.6	C	0.75	24.2	C			
E. 54th Street	NB	T	0.88	22.1	C	0.89	22.7	C				0.95	28.2	C	0.96	29.8	C			
		R	0.45	16.6	B	0.46	16.8	B				0.58	20.6	C	0.59	21.0	C			
Intersection			0.69	21.2	C	0.70	21.7	C				0.84	26.6	C	0.86	27.8	C			
3rd Avenue &	WB	TR	1.00	66.5	E	1.02	70.6	E	0.99	61.2	E	0.99	61.9	E	1.00	65.2	E			
E. 55th Street	NB	LT	0.86	15.8	B	0.87	16.3	B	0.89	17.9	B	0.97	24.5	C	0.98	26.8	C			
Intersection			0.92	23.9	C	0.93	25.0	C	0.93	24.9	C	0.98	30.5	C	0.99	33.0	C			
3rd Avenue &	EB	LT	0.95	52.4	D	0.98	57.2	E				1.01	64.6	E	1.03	70.5	E	1.00	61.4	E
E. 56th Street	NB	T	0.72	14.1	B	0.73	14.2	B				0.95	23.7	C	0.96	25.4	C	0.98	29.9	C
		R	0.58	16.0	B	0.59	16.4	B				0.17	9.7	A	0.18	9.8	A	0.18	10.5	B
Intersection			0.82	20.9	C	0.84	21.9	C				0.97	31.1	C	0.99	33.6	C	0.99	35.4	D
3rd Avenue &	EB	DEFL	0.86	55.6	E	0.87	57.1	E	0.87	56.4	E	-	-	-	-	-	-			-
E. 57th Street		T	1.13	98.7	F	1.15	107.9	F	1.10	89.1	F	-	-	-	-	-	-			-
		LT	-	-	-	-	-	-			-	1.05	62.4	E	1.06	67.0	E	1.03	58.0	E
	WB	T	0.96	50.3	D	0.97	51.8	D	0.93	45.1	D	0.65	31.3	C	0.66	31.4	C	0.63	30.1	C
		R	0.97	72.2	E	0.98	74.1	E	0.94	63.3	E	0.33	27.8	C	0.33	27.9	C	0.32	26.8	C
	NB	LTR	0.99	38.2	D	1.00	41.6	D	1.00	41.6	D	0.84	24.5	C	0.85	24.9	C	0.85	24.9	C
		R	0.41	21.9	C	0.42	22.0	C	0.42	22.0	C	0.93	61.9	E	0.95	64.4	E	0.95	64.4	E
Intersection			*	50.4	D	*	54.0	D	*	49.8	D	*	36.2	D	*	37.6	D	*	35.4	D
3rd Avenue &	EB	LT	0.47	18.3	B	0.47	18.3	B				0.55	19.4	B	0.55	19.4	B			
E. 58th Street	NB	TR	0.88	22.1	C	0.89	22.6	C				0.73	18.0	B	0.74	18.2	B			
		R	0.26	14.1	B	0.27	14.3	B				0.50	17.9	B	0.51	18.1	B			
Intersection			0.67	21.2	C	0.68	21.6	C				0.64	18.3	B	0.65	18.5	B			
3rd Avenue &	EB	LT	0.61	19.9	B	0.62	20.0	B				0.47	17.8	B	0.48	17.9	B			
E. 59th Street	NB	TR	0.79	19.4	B	0.80	19.7	B				0.73	18.1	B	0.74	18.3	B			
		R	1.06	90.3	F	1.07	92.6	F				1.00	77.8	E	1.00	79.3	E			
Intersection			0.70	27.9	C	0.71	28.3	C				0.60	24.0	C	0.61	24.3	C			
3rd Avenue &	WB	TR	0.70	22.6	C	0.71	22.7	C				0.71	22.7	C	0.71	22.9	C			
E. 60th Street		R	0.91	75.6	E	0.91	76.6	E				0.93	77.9	E	0.94	79.8	E			
	NB	LT	0.60	15.9	B	0.61	16.0	B				0.52	14.9	B	0.52	15.0	B			
Intersection			0.65	21.2	C	0.66	21.3	C				0.61	21.5	C	0.62	21.7	C			
3rd Avenue &	WB	TR	1.01	58.5	E	1.03	62.7	E	1.00	54.0	D	0.63	24.3	C	0.64	24.5	C			
E. 61 Street	NB	LT	0.61	12.4	B	0.62	12.5	B	0.64	13.4	B	0.52	11.4	B	0.52	11.4	B			
Intersection			0.79	25.8	C	0.80	27.1	C	0.80	25.2	C	0.57	14.4	B	0.57	14.5	B			
2nd Avenue &	EB	T	0.69	35.9	D	0.70	36.2	D	0.67	34.5	C	1.08	82.5	F	1.10	88.4	F	1.06	73.0	E
E. 57th Street		R	1.06	104.6	F	1.08	111.1	F	1.03	93.2	F	0.70	39.6	D	0.71	40.1	D	0.68	37.4	D
	WB	DEFL	1.09	77.3	E	1.10	82.7	F	1.08	74.8	E	0.45	22.3	C	0.46	22.5	C	0.46	22.2	C
		T	0.58	16.5	B	0.58	16.6	B	0.57	15.8	B	0.37	16.9	B	0.38	16.9	B	0.37	16.3	B
	SB	LTR	0.78	22.9	C	0.78	23.0	C	0.80	24.4	C	0.55	15.3	B	0.55	15.4	B	0.57	16.3	B
Intersection			1.01	34.7	C	1.04	35.9	D	1.02	34.4	C	0.78	36.4	D	0.79	38.3	D	0.79	34.1	C
Lexington Avenue &	EB	TR	0.80	27.8	C	0.81	28.3	C				0.95	39.0	D	0.96	41.0	D			
E. 57th Street	WB	LT	0.84	28.5	C	0.85	29.0	C				0.61	22.0	C	0.61	22.1	C			
	SB	LT	0.91	24.4	C	0.92	25.7	C				0.90	22.6	C	0.91	23.5	C			
		R	0.47	15.4	B	0.47	15.4	B				0.31	12.5	B	0.31	12.5	B			
Intersection			0.88	25.7	C	0.89	26.6	C				0.92	26.7	C	0.93	27.8	C			

NB = northbound; SB = southbound; EB = eastbound; WB = westbound
LT = left-turn and through movement; TR = through and right-turn movement; LTR = left-turn, through, and right-turn movement
L = left-turn movement; T = through movement; R = right-turn movement
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Table 3.15-13

2006 NO BUILD AND BUILD TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
3rd Avenue/East 57th Street Study Area

Intersection	Direction	Movement	AM Peak Hour									PM Peak Hour								
			No Build Conditions			Build Conditions			Build Mitigation			No Build Conditions			Build Conditions			Build Mitigation		
			V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS
3rd Avenue &	WB	TR	0.44	17.7	B	0.46	17.9	B				0.37	16.8	B	0.38	16.9	B			
E. 53rd Street		R	0.83	67.6	E	0.85	70.1	E				0.86	71.9	E	0.88	74.7	E			
	NB	LT	1.00	37.9	D	1.03	43.9	D				0.87	21.9	C	0.89	22.8	C			
Intersection			0.72	35.9	D	0.74	40.7	D				0.62	23.6	C	0.63	24.4	C			
3rd Avenue &	EB	LT	0.51	18.7	B	0.52	19.0	B				0.74	23.8	C	0.77	24.8	C			
E. 54th Street	NB	T	0.88	22.5	C	0.90	23.4	C				0.96	29.1	C	0.97	31.9	C			
		R	0.45	16.7	B	0.46	16.9	B				0.59	20.8	C	0.60	21.2	C			
Intersection			0.69	21.4	C	0.71	22.2	C				0.85	27.2	C	0.87	29.4	C			
3rd Avenue &	WB	TR	1.01	68.5	E	1.04	76.1	E	1.01	65.9	E	0.99	63.3	E	1.02	69.6	E	0.99	60.9	E
E. 55th Street	NB	LT	0.86	16.0	B	0.88	16.8	B	0.90	18.6	B	0.97	25.6	C	0.99	29.8	C	1.02	36.2	D
Intersection			0.93	24.4	C	0.95	26.3	C	0.95	26.2	C	0.98	31.7	C	1.00	36.2	D	1.00	40.2	D
3rd Avenue &	EB	LT	0.96	53.1	D	0.99	61.5	E	0.97	53.7	D	1.02	66.8	E	1.05	76.5	E	0.99	58.4	E
E. 56th Street	NB	T	0.73	14.2	B	0.74	14.4	B	0.76	15.5	B	0.95	24.6	C	0.97	27.5	C	1.02	39.6	D
		R	0.58	16.0	B	0.60	16.7	B	0.62	18.0	B	0.17	9.7	A	0.18	9.8	A	0.19	11.2	B
Intersection			0.83	21.1	C	0.85	22.9	C	0.85	22.4	C	0.98	32.2	C	1.01	36.4	D	1.01	42.6	D
3rd Avenue &	EB	DEFL	0.87	57.0	E	0.88	58.6	E	0.88	58.1	E	-	-	-	-	-	-			-
E. 57th Street		T	1.14	103.8	F	1.18	118.9	F	1.13	97.9	F	-	-	-	-	-	-			-
		LT	-	-	-	-	-	-			-	1.05	65.2	E	1.08	73.1	E	1.05	63.3	E
	WB	T	0.96	51.5	D	0.98	54.1	D	0.94	46.7	D	0.66	31.4	C	0.67	31.6	C	0.64	30.2	C
		R	0.98	74.1	E	0.99	77.2	E	0.95	65.7	E	0.33	27.9	C	0.34	28.0	C	0.33	26.9	C
	NB	LTR	0.99	39.4	D	1.01	44.9	D	1.01	44.9	D	0.84	24.7	C	0.86	25.4	C	0.86	25.4	C
		R	0.42	21.8	C	0.42	22.1	C	0.42	22.1	C	0.94	63.5	E	0.96	67.9	E	0.96	67.9	E
Intersection			*	52.1	D	*	57.9	E	*	53.3	D	*	37.1	D	*	39.5	D	*	37.1	D
3rd Avenue &	EB	LT	0.47	18.3	B	0.48	18.4	B				0.55	19.4	B	0.56	19.5	B			
E. 58th Street	NB	TR	0.88	22.4	C	0.90	23.2	C				0.74	18.2	B	0.75	18.4	B			
		R	0.27	14.2	B	0.28	14.4	B				0.51	18.0	B	0.52	18.2	B			
Intersection			0.68	21.5	C	0.69	22.2	C				0.65	18.4	B	0.66	18.7	B			
3rd Avenue &	EB	LT	0.61	20.0	B	0.62	20.2	C				0.47	17.9	B	0.48	18.0	B			
E. 59th Street	NB	TR	0.80	19.6	B	0.81	20.0	B				0.74	18.2	B	0.75	18.5	B			
		R	1.07	93.4	F	1.08	95.8	F				1.00	79.3	E	1.01	81.7	F			
Intersection			0.70	28.4	C	0.72	28.8	C				0.61	24.2	C	0.62	24.6	C			
3rd Avenue &	WB	TR	0.71	22.7	C	0.71	23.0	C				0.71	22.8	C	0.72	23.1	C			
E. 60th Street		R	0.91	76.6	E	0.92	78.6	E				0.94	78.9	E	0.94	80.8	F			
	NB	LT	0.60	15.9	B	0.61	16.1	B				0.52	15.0	B	0.53	15.1	B			
Intersection			0.65	21.3	C	0.66	21.5	C				0.62	21.7	C	0.63	21.9	C			
3rd Avenue &	WB	TR	1.02	60.6	E	1.04	66.3	E	1.01	56.9	E	0.64	24.4	C	0.65	24.7	C			
E. 61 Street	NB	LT	0.62	12.5	B	0.63	12.7	B	0.65	13.6	B	0.52	11.4	B	0.53	11.5	B			
Intersection			0.79	26.4	C	0.81	28.2	C	0.81	26.1	C	0.57	14.5	B	0.58	14.6	B			
2nd Avenue &	EB	T	0.70	36.1	D	0.71	36.5	D	0.68	34.8	C	1.09	85.6	F	1.12	94.9	F	1.08	78.7	E
E. 57th Street		R	1.07	107.8	F	1.10	116.1	F	1.04	97.4	F	0.70	39.9	D	0.72	40.9	D	0.69	38.0	D
	WB	DEFL	1.10	80.7	F	1.12	90.5	F	1.10	82.2	F	0.45	22.3	C	0.47	22.5	C	0.47	22.3	C
		T	0.58	16.6	B	0.59	16.7	B	0.57	15.9	B	0.38	16.9	B	0.38	17.0	B	0.37	16.3	B
	SB	LTR	0.78	23.0	C	0.79	23.2	C	0.81	24.6	C	0.55	15.4	B	0.56	15.4	B	0.57	16.4	B
Intersection			1.03	35.4	D	1.07	37.4	D	1.05	35.8	D	0.79	37.4	D	0.80	40.3	D	0.80	35.9	D
Lexington Avenue &	EB	TR	0.81	28.0	C	0.82	28.8	C				0.96	40.1	D	0.98	43.5	D			
E. 57th Street	WB	LT	0.84	28.8	C	0.86	29.5	C				0.61	22.0	C	0.62	22.3	C			
	SB	LT	0.92	24.9	C	0.94	26.9	C				0.90	23.0	C	0.92	24.5	C			
		R	0.47	15.4	B	0.48	15.5	B				0.31	12.5	B	0.32	12.6	B			
Intersection			0.88	26.1	C	0.90	27.4	C				0.93	27.2	C	0.95	29.0	C			

NB = northbound; SB = southbound; EB = eastbound; WB = westbound
LT = left-turn and through movement; TR = through and right-turn movement; LTR = left-turn, through, and right-turn movement
L = left-turn movement; T = through movement; R = right-turn movement
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Table 3.15-14

2004 NO BUILD AND BUILD TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
5th Avenue/42nd Street Study Area

Intersection	Direction	Movement	AM Peak Hour									PM Peak Hour								
			No Build Conditions			Build Conditions			Build Mitigation			No Build Conditions			Build Conditions			Build Mitigation		
			V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS
5th Avenue &	EB	TR	0.65	25.2	C	0.65	25.4	C				0.81	30.2	C	0.82	30.7	C			
E. 38th Street	SB	LT	0.63	12.9	B	0.63	13.0	B				0.58	12.3	B	0.58	12.3	B			
Intersection			0.64	16.0	B	0.64	16.1	B				0.68	18.8	B	0.69	19.0	B			
5th Avenue &	WB	LT	0.56	22.8	C	0.56	22.9	C				0.67	25.3	C	0.68	25.5	C			
E. 39th Street	SB	T	0.61	12.7	B	0.62	12.8	B				0.54	11.9	B	0.54	11.9	B			
		R	0.38	12.0	B	0.38	12.0	B				0.32	11.1	B	0.32	11.1	B			
Intersection			0.59	15.1	B	0.59	15.1	B				0.60	15.9	B	0.60	16.0	B			
5th Avenue &	EB	TR	0.71	26.5	C	0.71	26.6	C				0.44	21.0	C	0.45	21.0	C			
E. 40th Street	SB	LT	0.71	14.2	B	0.71	14.2	B				0.62	12.9	B	0.63	12.9	B			
Intersection			0.71	17.5	B	0.71	17.6	B				0.55	14.7	B	0.55	14.7	B			
5th Avenue &	SB	LT	0.68	9.5	A	0.69	9.5	A				0.60	8.5	A	0.60	8.5	A			
E. 41st Street														A						
Intersection			*	9.5	A	*	9.5	A				*	8.5	A	*	8.5	A			
5th Avenue &	EB	TR	0.88	33.3	C	0.89	34.0	C	0.87	31.5	C	0.66	24.5	C	0.67	24.6	C			
E. 42nd Street	WB	LT	1.10	84.5	F	1.12	91.2	F	1.08	74.1	E	1.04	62.2	E	1.05	66.1	E			
	SB	LT	0.71	14.2	B	0.72	14.2	B	0.73	15.3	B	0.65	13.2	B	0.65	13.2	B			
		R	0.08	8.9	A	0.08	8.9	A	0.08	9.5	A	0.13	9.6	A	0.13	9.6	A			
Intersection			0.89	37.9	D	0.89	40.0	D	0.89	35.2	D	0.82	28.7	C	0.83	29.9	C			
5th Avenue &	WB	LT	0.24	18.4	B	0.25	18.5	B				0.31	19.2	B	0.32	19.2	B			
E. 43rd Street	SB	T	0.75	15.0	B	0.76	15.0	B				0.66	13.3	B	0.66	13.4	B			
		R	0.24	10.1	B	0.24	10.1	B				0.28	10.6	B	0.28	10.6	B			
Intersection			0.53	15.1	B	0.53	15.1	B				0.51	14.1	B	0.51	14.1	B			
5th Avenue &	EB	TR	0.53	22.6	C	0.54	22.7	C				0.61	23.8	C	0.61	24.0	C			
E. 44th Street	SB	LT	0.81	16.2	B	0.81	16.3	B				0.70	14.0	B	0.71	14.1	B			
Intersection			0.68	17.4	B	0.69	17.5	B				0.66	16.5	B	0.66	16.6	B			
5th Avenue &	WB	LT	0.54	22.5	C	0.54	22.6	C				0.52	22.0	C	0.52	22.0	C			
E. 45th Street	SB	T	0.70	13.9	B	0.70	14.0	B				0.67	13.6	B	0.68	13.6	B			
		R	0.31	11.0	B	0.31	11.0	B				0.22	10.0	A	0.22	10.0	B			
Intersection			0.63	15.5	B	0.63	15.5	B				0.60	15.4	B	0.61	15.4	B			
5th Avenue &	EB	TR	0.54	22.8	C	0.55	22.9	C				0.39	20.2	C	0.40	20.2	C			
E. 46th Street	SB	LT	0.91	20.7	C	0.92	21.2	C				0.78	15.5	B	0.78	15.6	B			
Intersection			0.75	21.1	C	0.76	21.5	C				0.61	16.4	B	0.61	16.5	B			
6th Avenue &	EB	T	0.83	33.6	C	0.84	34.1	C	0.81	32.0	C	0.46	21.0	C	0.47	21.0	C			
W. 42nd Street	WB	TR	1.07	74.7	E	1.09	79.8	E	1.05	67.1	E	0.89	32.8	C	0.90	33.7	C			
	NB	LT	0.58	8.9	A	0.58	9.0	A	0.60	9.8	A	0.71	14.1	B	0.72	14.2	B			
		R	0.33	8.3	A	0.33	8.4	A	0.34	9.1	A	0.42	13.0	B	0.43	13.1	B			
Intersection			0.77	32.6	C	0.78	34.2	C	0.78	30.5	C	0.79	19.6	B	0.80	19.9	B			
Madison Avenue &	EB	LT	1.18	118.4	F	1.20	128.4	F	1.15	107.2	F	0.55	22.1	C	0.56	22.2	C			
E. 42nd Street	WB	TR	1.07	72.4	E	1.09	77.4	E	1.06	66.2	E	0.91	35.6	D	0.92	36.7	D			
	NB	LT	0.51	12.0	B	0.52	12.0	B	0.53	12.9	B	0.50	11.7	B	0.51	11.7	B			
		R	0.15	9.5	A	0.15	9.5	A	0.16	10.2	B	0.10	9.0	A	0.10	9.0	A			
Intersection			0.80	67.1	E	0.82	72.1	E	0.81	61.7	E	0.68	22.8	C	0.69	23.3	C			
Vanderbilt Avenue &	EB	T	0.69	22.5	C	0.70	22.7	C	0.68	21.6	C	0.63	21.0	C	0.64	21.1	C			
E. 42nd Street	WB	T	1.04	61.6	E	1.05	65.7	E	1.03	57.3	E	0.72	23.1	C	0.73	23.3	C			
Intersection			*	45.5	D	*	48.0	D	*	42.6	D	*	22.1	C	*	22.3	C			

NB = northbound; SB = southbound; EB = eastbound; WB = westbound
LT = left-turn and through movement; TR = through and right-turn movement; LTR = left-turn, through, and right-turn movement
L = left-turn movement; T = through movement; R = right-turn movement
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Table 3.15-15

2005 NO BUILD AND BUILD TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
5th Avenue/42nd Street Study Area

Intersection	Direction	Movement	AM Peak Hour									PM Peak Hour								
			No Build Conditions			Build Conditions			Build Mitigation			No Build Conditions			Build Conditions			Build Mitigation		
			V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS
5th Avenue &	EB	TR	0.65	25.3	C	0.66	25.6	C				0.82	30.5	C	0.83	31.3	C			
E. 38th Street	SB	LT	0.64	13.0	B	0.64	13.1	B				0.59	12.4	B	0.59	12.5	B			
Intersection			0.64	16.1	B	0.65	16.2	B				0.69	18.9	B	0.70	19.3	B			
5th Avenue &	WB	LT	0.56	22.9	C	0.57	23.0	C				0.68	25.4	C	0.69	25.7	C			
E. 39th Street	SB	T	0.62	12.8	B	0.62	12.9	B				0.55	12.0	B	0.56	12.0	B			
		R	0.39	12.1	B	0.39	12.1	B				0.32	11.1	B	0.32	11.2	B			
Intersection			0.59	15.2	B	0.60	15.3	B				0.61	15.9	B	0.61	16.1	B			
5th Avenue &	EB	TR	0.71	26.6	C	0.72	26.9	C				0.45	21.0	C	0.45	21.1	C			
E. 40th Street	SB	LT	0.72	14.3	B	0.72	14.4	B				0.64	13.0	B	0.64	13.1	B			
Intersection			0.72	17.6	B	0.72	17.8	B				0.55	14.8	B	0.56	14.8	B			
5th Avenue &	SB	LT	0.69	9.6	A	0.70	9.6	A				0.61	8.6	A	0.62	8.7	A			
E. 41st Street														A						
Intersection			*	9.6	A	*	9.6	A				*	8.6	A	*	8.7	A			
5th Avenue &	EB	TR	0.88	33.5	C	0.90	34.9	C	0.88	32.1	C	0.72	25.7	C	0.73	26.1	C	0.71	24.9	C
E. 42nd Street	WB	LT	1.11	86.2	F	1.14	99.2	F	1.10	80.9	F	1.04	63.9	E	1.07	71.9	E	1.04	61.7	E
	SB	LT	0.72	14.3	B	0.73	14.4	B	0.74	15.5	B	0.66	13.3	B	0.67	13.4	B	0.68	14.4	B
		R	0.08	8.9	A	0.09	8.9	A	0.09	9.6	A	0.13	9.6	A	0.14	9.7	A	0.15	10.3	B
Intersection			0.89	38.4	D	0.91	42.5	D	0.90	37.4	D	0.83	29.3	C	0.84	31.7	C	0.84	29.2	C
5th Avenue &	WB	LT	0.25	18.5	B	0.25	18.5	B				0.31	19.2	B	0.32	19.3	B			
E. 43rd Street	SB	T	0.76	15.1	B	0.77	15.2	B				0.67	13.5	B	0.67	13.6	B			
		R	0.24	10.1	B	0.24	10.2	B				0.28	10.6	B	0.29	10.7	B			
Intersection			0.53	15.2	B	0.54	15.3	B				0.51	14.2	B	0.52	14.3	B			
5th Avenue &	EB	TR	0.53	22.7	C	0.54	22.8	C				0.61	24.0	C	0.62	24.2	C			
E. 44th Street	SB	LT	0.81	16.5	B	0.82	16.7	B				0.71	14.2	B	0.72	14.3	B			
Intersection			0.69	17.6	B	0.70	17.8	B				0.67	16.6	B	0.68	16.8	B			
5th Avenue &	WB	LT	0.55	22.9	C	0.56	23.0	C				0.52	22.1	C	0.53	22.2	C			
E. 45th Street	SB	T	0.71	14.1	B	0.71	14.2	B				0.68	13.7	B	0.69	13.8	B			
		R	0.31	11.0	B	0.32	11.1	B				0.22	10.0	B	0.23	10.1	B			
Intersection			0.64	15.7	B	0.65	15.8	B				0.61	15.5	B	0.62	15.6	B			
5th Avenue &	EB	TR	0.55	22.9	C	0.56	23.2	C				0.40	20.2	C	0.41	20.3	C			
E. 46th Street	SB	LT	0.92	21.4	C	0.93	22.5	C				0.79	15.8	B	0.80	16.1	B			
Intersection			0.76	21.7	C	0.77	22.6	C				0.62	16.6	B	0.63	16.9	B			
6th Avenue &	EB	T	0.83	34.0	C	0.85	34.9	C	0.82	32.6	C	0.54	22.1	C	0.55	22.2	C			
W. 42nd Street	WB	TR	1.07	75.9	E	1.10	86.2	F	1.07	72.8	E	0.89	33.1	C	0.91	35.1	D			
	NB	LT	0.61	9.3	A	0.62	9.4	A	0.64	10.2	B	0.71	14.0	B	0.72	14.2	B			
		R	0.31	8.2	A	0.33	8.3	A	0.33	9.0	A	0.37	12.1	B	0.38	12.2	B			
Intersection			0.79	32.7	C	0.81	35.9	D	0.81	32.1	C	0.79	19.9	B	0.81	20.6	C			
Madison Avenue &	EB	LT	1.19	121.9	F	1.23	138.7	F	1.18	117.4	F	0.59	22.9	C	0.61	23.1	C			
E. 42nd Street	WB	TR	1.08	74.2	E	1.10	83.4	F	1.07	71.6	E	0.91	36.0	D	0.94	38.6	D			
	NB	LT	0.52	12.1	B	0.53	12.2	B	0.54	13.1	B	0.51	11.8	B	0.52	11.9	B			
		R	0.15	9.6	A	0.16	9.6	A	0.16	10.3	B	0.11	9.0	A	0.11	9.0	A			
Intersection			0.81	68.6	E	0.84	77.2	E	0.83	66.6	E	0.69	23.1	C	0.70	24.2	C			
Vanderbilt Avenue &	EB	T	0.69	22.5	C	0.70	22.9	C	0.69	21.8	C	0.68	22.0	C	0.69	22.3	C			
E. 42nd Street	WB	T	1.04	62.7	E	1.07	71.0	E	1.04	61.9	E	0.72	23.2	C	0.74	23.7	C			
Intersection			*	46.2	D	*	51.2	D	*	45.4	D	*	22.6	C	*	23.0	C			

NB = northbound; SB = southbound; EB = eastbound; WB = westbound
LT = left-turn and through movement; TR = through and right-turn movement; LTR = left-turn, through, and right-turn movement
L = left-turn movement; T = through movement; R = right-turn movement
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Table 3.15-16

2006 NO BUILD AND BUILD TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
5th Avenue/42nd Street Study Area

Intersection	Direction	Movement	AM Peak Hour									PM Peak Hour								
			No Build Conditions			Build Conditions			Build Mitigation			No Build Conditions			Build Conditions			Build Mitigation		
			V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS			
5th Avenue &	EB	TR	0.66	25.5	C	0.67	25.9	C				0.82	30.8	C	0.85	32.2	C			
E. 38th Street	SB	LT	0.64	13.1	B	0.65	13.2	B				0.59	12.5	B	0.60	12.6	B			
Intersection			0.65	16.2	B	0.66	16.4	B				0.70	19.1	B	0.71	19.7	B			
5th Avenue &	WB	LT	0.56	23.0	C	0.58	23.2	C				0.68	25.6	C	0.70	26.1	C			
E. 39th Street	SB	T	0.62	12.9	B	0.63	13.0	B				0.56	12.0	B	0.56	12.1	B			
		R	0.39	12.1	B	0.39	12.1	B				0.32	11.2	B	0.33	11.2	B			
Intersection			0.60	15.2	B	0.61	15.4	B				0.61	16.0	B	0.62	16.3	B			
5th Avenue &	EB	TR	0.72	26.8	C	0.73	27.2	C				0.45	21.0	C	0.46	21.2	C			
E. 40th Street	SB	LT	0.72	14.4	B	0.73	14.6	B				0.64	13.1	B	0.65	13.2	B			
Intersection			0.72	17.8	B	0.73	18.0	B				0.56	14.8	B	0.56	14.9	B			
5th Avenue & E. 41st Street	SB	LT	0.70	9.6	A	0.70	9.7	A				0.62	8.7	A	0.62	8.7	A			
Intersection			*	9.6	A	*	9.7	A				*	8.7	A	*	8.7	A			
5th Avenue &	EB	TR	0.90	34.9	C	0.93	37.5	D	0.88	31.5	C	0.74	26.6	C	0.76	27.1	C	0.74	25.8	C
E. 42nd Street	WB	LT	1.13	93.9	F	1.18	115.0	F	1.09	78.1	E	1.05	66.9	E	1.09	79.6	E	1.06	68.5	E
	SB	LT	0.73	14.4	B	0.74	14.6	B	0.77	16.8	B	0.67	13.4	B	0.67	13.5	B	0.69	14.5	B
		R	0.08	8.9	A	0.09	8.9	A	0.09	10.2	B	0.14	9.7	A	0.15	9.7	A	0.15	10.4	B
Intersection			0.90	40.9	D	0.93	47.8	D	0.92	37.2	D	0.83	30.3	C	0.85	34.1	C	0.85	31.3	C
5th Avenue &	WB	LT	0.25	18.5	B	0.26	18.6	B				0.32	19.2	B	0.33	19.4	B			
E. 43rd Street	SB	T	0.77	15.2	B	0.77	15.4	B				0.67	13.6	B	0.68	13.7	B			
		R	0.24	10.1	B	0.25	10.3	B				0.28	10.6	B	0.29	10.7	B			
Intersection			0.54	15.3	B	0.55	15.5	B				0.52	14.3	B	0.53	14.4	B			
5th Avenue &	EB	TR	0.54	22.7	C	0.55	23.0	C				0.61	24.0	C	0.63	24.4	C			
E. 44th Street	SB	LT	0.82	16.6	B	0.83	17.0	B				0.72	14.3	B	0.73	14.5	B			
Intersection			0.70	17.8	B	0.71	18.1	B				0.67	16.7	B	0.69	17.0	B			
5th Avenue &	WB	LT	0.60	23.8	C	0.61	24.0	C				0.53	22.3	C	0.54	22.5	C			
E. 45th Street	SB	T	0.71	14.1	B	0.72	14.3	B				0.69	13.8	B	0.70	14.0	B			
		R	0.31	11.0	B	0.33	11.1	B				0.22	10.0	B	0.23	10.1	B			
Intersection			0.66	16.0	B	0.67	16.2	B				0.62	15.6	B	0.63	15.8	B			
5th Avenue &	EB	TR	0.55	22.9	C	0.58	23.4	C				0.40	20.2	C	0.42	20.4	C			
E. 46th Street	SB	LT	0.93	22.0	C	0.95	23.8	C				0.79	16.0	B	0.81	16.3	B			
Intersection			0.76	22.1	C	0.78	23.8	C				0.62	16.8	B	0.64	17.1	B			
6th Avenue &	EB	T	0.85	34.8	C	0.87	36.3	D	0.84	33.7	C	0.54	22.1	C	0.56	22.4	C			
W. 42nd Street	WB	TR	1.09	81.0	F	1.13	96.2	F	1.09	82.2	F	0.90	33.8	C	0.93	37.5	D			
	NB	LT	0.62	9.4	A	0.63	9.5	A	0.65	10.3	B	0.73	14.4	B	0.74	14.7	B			
		R	0.33	8.4	A	0.34	8.5	A	0.35	9.2	A	0.43	13.1	B	0.44	13.3	B			
Intersection			0.80	34.3	C	0.83	39.1	D	0.83	35.1	D	0.80	20.2	C	0.83	21.4	C			
Madison Avenue &	EB	LT	1.21	132.7	F	1.28	161.4	F	1.18	117.5	F	0.62	23.3	C	0.63	23.6	C			
E. 42nd Street	WB	TR	1.09	78.1	E	1.13	93.8	F	1.07	69.5	E	0.92	36.9	D	0.96	41.6	D			
	NB	LT	0.52	12.1	B	0.54	12.3	B	0.56	14.1	B	0.52	11.8	B	0.53	12.0	B			
		R	0.15	9.6	A	0.16	9.6	A	0.17	10.9	B	0.11	9.0	A	0.11	9.0	A			
Intersection			0.83	73.5	E	0.86	88.3	F	0.85	66.4	E	0.69	23.6	C	0.72	25.4	C			
Vanderbilt Avenue &	EB	T	0.70	22.9	C	0.73	23.5	C	0.71	22.4	C	0.70	22.7	C	0.72	23.1	C			
E. 42nd Street	WB	T	1.06	66.6	E	1.09	79.9	E	1.07	70.0	E	0.73	23.4	C	0.76	24.3	C			
Intersection			*	48.5	D	*	56.6	E	*	50.3	D	*	23.0	C	*	23.7	C			

NB = northbound; SB = southbound; EB = eastbound; WB = westbound
LT = left-turn and through movement; TR = through and right-turn movement; LTR = left-turn, through, and right-turn movement
L = left-turn movement; T = through movement; R = right-turn movement
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Table 3.15-17

2004 NO BUILD AND BUILD TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
Broadway/6th Avenue/West 34th Street Study Area

Intersection	Direction	Movement	AM Peak Hour									PM Peak Hour								
			No Build Conditions			Build Conditions			Build Mitigation			No Build Conditions			Build Conditions			Build Mitigation		
			V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS
6th Avenue &	EB	LT	1.00	57.7	E	1.01	60.4	E	0.51	16.6	B	0.86	33.4	C	0.87	34.6	C			
W. 30th Street	NB	TR	1.04	51.8	D	1.05	56.8	E	1.04	52.3	D	1.01	45.6	D	1.03	48.7	D			
Intersection			1.02	53.1	D	1.03	57.5	E	0.75	44.9	D	0.93	43.2	D	0.94	45.9	D			
6th Avenue &	WB	TR	0.55	20.5	C	0.56	20.6	C				0.46	18.7	B	0.46	18.8	B			
W. 31st Street	NB	LT	0.99	33.8	C	1.00	36.9	D				0.88	22.0	C	0.89	22.4	C			
Intersection			0.77	31.4	C	0.78	33.9	C				0.67	21.4	C	0.68	21.8	C			
6th Avenue &	EB	LT	0.88	38.7	D	0.89	40.4	D				0.63	23.7	C	0.64	23.8	C			
W. 32nd Street	NB	TR	0.75	17.7	B	0.76	17.9	B				0.68	16.5	B	0.69	16.6	B			
Intersection			0.81	21.6	C	0.82	22.1	C				0.66	17.6	B	0.67	17.7	B			
6th Avenue &	NB	L	0.60	29.3	C	0.61	29.6	C				0.74	37.1	D	0.74	37.4	D			
W. 33rd Street		T	0.97	37.9	D	0.98	40.5	D				0.88	29.0	C	0.89	29.5	C			
Intersection			*	37.3	D	*	39.7	D				*	29.8	C	*	30.3	C			
6th Avenue & Broadway &	EB	T	0.85	37.0	D	0.85	37.3	D				0.77	32.6	C	0.77	32.6	C	0.77	32.6	C
W. 34th Street	WB	TR	0.88	38.9	D	0.88	39.4	D				0.90	40.7	D	0.90	41.0	D	0.90	41.0	D
	NB	T	0.60	7.2	A	0.60	7.2	A				0.53	6.6	A	0.53	6.6	A	0.53	6.6	A
	SB	T	0.99	63.3	E	1.00	65.6	E				1.32	184.9	F	1.32	188.3	F	1.27	162.2	F
Intersection			0.69	27.6	C	0.70	28.1	C				0.65	59.0	E	0.66	59.8	E	0.66	53.6	D
6th Avenue &	WB	TR	0.56	26.3	C	0.56	26.3	C				0.49	21.8	C	0.50	21.9	C			
W. 35th Street	NB	LT	0.95	22.3	C	0.97	24.3	C				0.70	14.0	B	0.71	14.1	B			
Intersection			0.80	23.1	C	0.81	24.7	C				0.61	15.5	B	0.62	15.6	B			
6th Avenue &	EB	L	0.91	77.2	E	0.92	79.2	E				0.91	77.4	E	0.92	79.5	E			
W. 36th Street		T	0.29	15.7	B	0.29	15.7	B				0.41	17.0	B	0.41	17.0	B			
	NB	TR	0.70	17.5	B	0.71	17.6	B				0.63	16.5	B	0.64	16.6	B			
Intersection			0.49	21.0	C	0.50	21.2	C				0.52	20.4	C	0.53	20.6	C			
6th Avenue &	WB	T	0.36	16.5	B	0.37	16.5	B				0.33	16.1	B	0.33	16.2	B			
W. 37th Street		R	0.68	26.9	C	0.68	27.0	C				0.84	36.4	D	0.84	36.8	D			
	NB	LT	0.68	17.1	B	0.69	17.3	B				0.62	16.3	B	0.63	16.4	B			
Intersection			0.68	18.0	B	0.69	18.1	B				0.73	19.0	B	0.74	19.1	B			
6th Avenue &	EB	LT	0.82	35.1	D	0.83	35.5	D				0.83	31.4	C	0.83	31.6	C			
W. 38th Street	NB	TR	0.60	9.0	A	0.61	9.0	A				0.64	12.9	B	0.65	12.9	B			
Intersection			0.68	14.9	B	0.69	15.0	B				0.73	17.9	B	0.73	18.0	B			
Broadway &	EB	TR	0.40	17.9	B	0.40	17.9	B				0.45	18.5	B	0.45	18.6	B			
W. 30th Street	SB	LT	0.50	14.5	B	0.50	14.5	B				0.52	14.7	B	0.52	14.7	B			
Intersection			0.45	15.6	B	0.46	15.7	B				0.48	16.0	B	0.49	16.0	B			
Broadway &	WB	LT	0.76	27.7	C	0.77	28.2	C				0.57	21.4	C	0.57	21.5	C			
W. 31st Street	SB	TR	0.77	20.9	C	0.78	21.1	C				0.86	25.1	C	0.87	25.6	C			
Intersection			0.76	23.5	C	0.77	23.8	C				0.72	24.1	C	0.72	24.4	C			
Broadway &	EB	TR	0.28	16.2	B	0.28	16.3	B				0.28	16.3	B	0.29	16.3	B			
W. 32nd Street	SB	L	0.38	14.6	B	0.39	14.7	B				0.27	13.0	B	0.28	13.0	B			
		T	0.61	16.6	B	0.62	16.7	B				0.67	17.5	B	0.68	17.6	B			
Intersection			0.45	16.2	B	0.45	16.3	B				0.48	16.7	B	0.49	16.8	B			
Broadway &	WB	L	0.33	16.5	B	0.33	16.5	B				0.32	16.2	B	0.32	16.2	B			
W. 33rd Street	SB	T	0.63	18.5	B	0.63	18.6	B				0.64	18.5	B	0.65	18.6	B			
Intersection			0.48	18.1	B	0.48	18.1	B				0.48	18.0	B	0.48	18.1	B			

NB = northbound; SB = southbound; EB = eastbound; WB = westbound
LT = left-turn and through movement; TR = through and right-turn movement; LTR = left-turn, through, and right-turn movement
L = left-turn movement; T = through movement; R = right-turn movement
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Table 3.15-17 (Cont'd)

2004 NO BUILD AND BUILD TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
Broadway/6th Avenue/West 34th Street Study Area

Intersection	Direction	Movement	AM Peak Hour									PM Peak Hour								
			No Build Conditions			Build Conditions			Build Mitigation			No Build Conditions			Build Conditions			Build Mitigation		
			V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS
Broadway &	WB	LT	0.25	7.1	A	0.25	7.1	A				0.21	6.8	A	0.21	6.8	A			
W. 35th Street	SB	TR	0.59	30.5	C	0.59	30.6	C				0.71	32.8	C	0.71	32.9	C			
Intersection			0.35	21.8	C	0.35	21.9	C				0.35	24.8	C	0.36	24.8	C			
Broadway &	EB	TR	0.47	12.5	B	0.47	12.5	B				0.57	14.0	B	0.57	14.1	B			
W. 36th Street	SB	LT	0.47	22.7	C	0.47	22.8	C				0.62	24.9	C	0.63	25.0	C			
Intersection			0.47	18.1	B	0.47	18.1	B				0.59	20.3	C	0.59	20.3	C			
Broadway &	WB	LT	0.53	16.1	B	0.53	16.1	B				0.45	14.9	B	0.45	15.0	B			
W. 37th Street	SB	TR	0.44	18.2	B	0.44	18.3	B				0.55	19.5	B	0.55	19.6	B			
Intersection			0.49	17.2	B	0.49	17.3	B				0.49	17.8	B	0.50	17.8	B			
Broadway &	EB	TR	0.53	18.5	B	0.53	18.6	B				0.52	18.4	B	0.53	18.4	B			
W. 38th Street	SB	LT	0.43	15.0	B	0.43	15.0	B				0.57	16.6	B	0.57	16.7	B			
Intersection			0.48	16.4	B	0.48	16.5	B				0.54	17.2	B	0.55	17.3	B			
5th Avenue &	EB	TR	0.48	17.9	B	0.49	18.0	B				0.45	17.5	B	0.45	17.5	B			
W. 34th Street	WB	T	0.39	16.7	B	0.39	16.7	B				0.34	16.2	B	0.34	16.2	B			
	SB	LT	0.65	16.9	B	0.66	17.1	B				0.51	15.0	B	0.51	15.1	B			
		R	0.37	15.7	B	0.37	15.8	B				0.31	14.9	B	0.31	14.9	B			
Intersection			0.57	17.0	B	0.57	17.1	B				0.48	15.9	B	0.48	15.9	B			
7th Avenue &	EB	TR	0.69	25.0	C	0.69	25.1	C				0.61	23.2	C	0.61	23.2	C			
W. 34th Street	WB	LT	0.75	27.0	C	0.76	27.2	C				0.60	23.0	C	0.60	23.0	C			
	SB	T	0.59	13.0	B	0.60	13.2	B				0.66	14.0	B	0.67	14.1	B			
Intersection			0.66	19.1	B	0.67	19.2	B				0.64	17.8	B	0.64	17.9	B			

NB = northbound; SB = southbound; EB = eastbound; WB = westbound
LT = left-turn and through movement; TR = through and right-turn movement; LTR = left-turn, through, and right-turn movement
L = left-turn movement; T = through movement; R = right-turn movement
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Table 3.15-18

2005 NO BUILD AND BUILD TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
Broadway/6th Avenue/West 34th Street Study Area

Intersection	Direction	Movement	AM Peak Hour									PM Peak Hour								
			No Build Conditions			Build Conditions			Build Mitigation			No Build Conditions			Build Conditions			Build Mitigation		
			V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS
6th Avenue &	EB	LT	1.01	59.9	E	1.03	66.0	E	0.52	16.7	B	0.87	34.2	C	0.89	37.1	D	0.45	15.6	B
W. 30th Street	NB	LT	1.04	54.3	D	1.07	64.0	E	1.06	59.1	E	1.02	47.7	D	1.04	54.3	D	1.03	49.9	D
Intersection			1.02	55.5	E	1.05	64.4	E	0.76	50.3	D	0.94	45.1	D	0.96	50.9	D	0.71	43.1	D
6th Avenue &	WB	TR	0.56	20.6	C	0.57	20.8	C	0.58	21.8	C	0.46	18.7	B	0.46	18.8	B			
W. 31st Street	NB	LT	0.99	35.5	D	1.02	42.3	D	1.00	35.0	C	0.88	22.3	C	0.90	23.4	C			
Intersection			0.78	32.8	C	0.80	38.4	D	0.80	32.6	C	0.68	21.7	C	0.69	22.6	C			
6th Avenue &	EB	LT	0.88	39.4	D	0.91	43.3	D				0.64	23.8	C	0.65	24.3	C			
W. 32nd Street	NB	LT	0.75	17.8	B	0.77	18.2	B				0.69	16.5	B	0.70	16.7	B			
Intersection			0.82	21.8	C	0.84	22.9	C				0.66	17.7	B	0.68	17.9	B			
6th Avenue &	NB	L	0.60	29.4	C	0.62	30.3	C	0.59	27.4	C	0.75	37.7	D	0.76	38.6	D			
W. 33rd Street		T	0.98	39.3	D	1.00	45.2	D	0.98	37.8	D	0.88	29.3	C	0.90	30.5	C			
Intersection			*	38.5	D	*	44.1	D	*	37.1	D	*	30.2	C	*	31.3	C			
6th Avenue & Broadway &	EB	T	0.86	37.3	D	0.86	37.8	D	0.86	37.8	D	0.78	32.8	C	0.78	33.0	C	0.78	33.0	C
W. 34th Street	WB	TR	0.88	39.4	D	0.90	40.5	D	0.90	40.5	D	0.91	41.8	D	0.91	42.6	D	0.91	42.6	D
	NB	T	0.60	7.2	A	0.62	7.4	A	0.62	7.4	A	0.53	6.6	A	0.54	6.7	A	0.54	6.7	A
	SB	T	1.00	64.6	E	1.02	69.5	E	0.97	57.9	E	1.32	188.3	F	1.34	195.8	F	1.28	169.2	F
Intersection			0.70	27.9	C	0.71	29.0	C	0.71	27.0	C	0.66	59.9	E	0.67	61.8	E	0.67	55.5	E
6th Avenue &	WB	TR	0.56	26.3	C	0.58	26.6	C				0.50	21.9	C	0.50	22.1	C			
W. 35th Street	NB	LT	0.96	23.3	C	0.99	28.1	C				0.71	14.1	B	0.72	14.3	B			
Intersection			0.81	23.9	C	0.83	27.8	C				0.61	15.6	B	0.63	15.8	B			
6th Avenue &	EB	L	0.92	78.2	E	0.94	82.4	F	0.88	69.1	E	0.92	78.4	E	0.94	82.7	F	0.88	70.0	E
W. 36th Street		T	0.29	15.7	B	0.29	15.8	B	0.29	15.1	B	0.43	17.2	B	0.43	17.3	B	0.42	16.6	B
	NB	TR	0.71	17.6	B	0.72	17.9	B	0.74	19.0	B	0.64	16.6	B	0.65	16.7	B	0.67	17.8	B
Intersection			0.50	21.1	C	0.51	21.6	C	0.51	21.5	C	0.53	20.5	C	0.54	20.9	C	0.54	20.7	C
6th Avenue &	WB	T	0.37	16.5	B	0.37	16.6	B				0.33	16.2	B	0.33	16.2	B			
W. 37th Street		R	0.76	31.1	C	0.76	31.4	C				0.86	38.4	D	0.87	39.6	D			
	NB	LT	0.68	17.2	B	0.70	17.5	B				0.63	16.4	B	0.64	16.6	B			
Intersection			0.72	18.6	B	0.73	18.8	B				0.74	19.4	B	0.75	19.7	B			
6th Avenue &	EB	LT	0.83	35.5	D	0.84	36.1	D				0.83	31.7	C	0.84	32.1	C			
W. 38th Street	NB	TR	0.62	9.1	A	0.63	9.3	A				0.65	13.0	B	0.66	13.1	B			
Intersection			0.70	15.1	B	0.71	15.2	B				0.73	18.1	B	0.74	18.3	B			
Broadway &	EB	TR	0.40	17.9	B	0.41	18.0	B				0.45	18.5	B	0.46	18.7	B			
W. 30th Street	SB	LT	0.50	14.5	B	0.51	14.6	B				0.52	14.7	B	0.53	14.8	B			
Intersection			0.45	15.6	B	0.46	15.8	B				0.49	16.0	B	0.50	16.1	B			
Broadway &	WB	LT	0.76	27.9	C	0.78	28.9	C				0.57	21.4	C	0.58	21.6	C			
W. 31st Street	SB	TR	0.78	21.1	C	0.79	21.6	C				0.87	25.5	C	0.88	26.3	C			
Intersection			0.77	23.7	C	0.79	24.4	C				0.72	24.3	C	0.73	24.9	C			
Broadway &	EB	TR	0.28	16.2	B	0.28	16.3	B				0.28	16.3	B	0.29	16.4	B			
W. 32nd Street	SB	L	0.39	14.7	B	0.39	14.8	B				0.28	13.0	B	0.28	13.1	B			
		T	0.61	16.6	B	0.63	16.8	B				0.68	17.6	B	0.68	17.8	B			
Intersection			0.45	16.2	B	0.46	16.4	B				0.48	16.8	B	0.49	16.9	B			
Broadway &	WB	L	0.33	16.5	B	0.34	16.6	B	0.34	17.3	B	0.32	16.2	B	0.33	16.2	B			
W. 33rd Street	SB	T	0.63	18.5	B	0.65	18.8	B	0.63	17.7	B	0.65	18.6	B	0.65	18.8	B			
Intersection			0.48	18.1	B	0.49	18.3	B	0.49	17.6	B	0.48	18.1	B	0.49	18.2	B			

NB = northbound; SB = southbound; EB = eastbound; WB = westbound
LT = left-turn and through movement; TR = through and right-turn movement; LTR = left-turn, through, and right-turn movement
L = left-turn movement; T = through movement; R = right-turn movement
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Table 3.15-18 (Cont'd)

2005 NO BUILD AND BUILD TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
Broadway/6th Avenue/West 34th Street Study Area

Intersection	Direction	Movement	AM Peak Hour									PM Peak Hour								
			2005 No Build Conditions			2005 Build Conditions			2005 Build Conditions			2005 No Build Conditions			2005 Build Conditions			2005 Build Conditions		
			V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS
Broadway &	WB	LT	0.25	7.1	A	0.26	7.1	A				0.21	6.8	A	0.21	6.8	A			
W. 35th Street	SB	TR	0.59	30.5	C	0.60	30.7	C				0.71	32.9	C	0.72	33.1	C			
Intersection			0.35	21.8	C	0.36	22.0	C				0.36	24.8	C	0.36	25.0	C			
Broadway &	EB	TR	0.47	12.5	B	0.48	12.7	B				0.59	14.4	B	0.60	14.5	B			
W. 36th Street	SB	LT	0.47	22.8	C	0.48	22.9	C				0.63	25.0	C	0.63	25.1	C			
Intersection			0.47	18.1	B	0.48	18.2	B				0.61	20.4	C	0.61	20.5	C			
Broadway &	WB	LT	0.53	16.1	B	0.54	16.3	B				0.46	15.0	B	0.46	15.0	B			
W. 37th Street	SB	TR	0.44	18.3	B	0.45	18.4	B				0.55	19.6	B	0.55	19.6	B			
Intersection			0.49	17.3	B	0.50	17.4	B				0.50	17.9	B	0.50	17.9	B			
Broadway &	EB	TR	0.53	18.6	B	0.54	18.7	B				0.53	18.5	B	0.53	18.6	B			
W. 38th Street	SB	LT	0.43	15.0	B	0.44	15.1	B				0.57	16.7	B	0.58	16.8	B			
Intersection			0.48	16.5	B	0.49	16.5	B				0.55	17.3	B	0.56	17.4	B			
5th Avenue &	EB	TR	0.49	18.0	B	0.49	18.0	B				0.46	17.6	B	0.46	17.6	B			
W. 34th Street	WB	T	0.39	16.7	B	0.40	16.8	B				0.34	16.2	B	0.34	16.2	B			
	SB	LT	0.65	17.0	B	0.67	17.3	B				0.51	15.0	B	0.52	15.2	B			
		R	0.37	15.8	B	0.38	15.8	B				0.32	15.0	B	0.32	15.0	B			
Intersection			0.57	17.1	B	0.58	17.3	B				0.48	15.9	B	0.49	16.0	B			
7th Avenue &	EB	TR	0.69	25.1	C	0.70	25.3	C				0.62	23.3	C	0.62	23.4	C			
W. 34th Street	WB	LT	0.76	27.1	C	0.77	27.5	C				0.60	23.1	C	0.61	23.2	C			
	SB	T	0.59	13.1	B	0.61	13.3	B				0.68	14.3	B	0.69	14.5	B			
Intersection			0.67	19.2	B	0.68	19.4	B				0.65	18.0	B	0.66	18.1	B			

NB = northbound; SB = southbound; EB = eastbound; WB = westbound
LT = left-turn and through movement; TR = through and right-turn movement; LTR = left-turn, through, and right-turn movement
L = left-turn movement; T = through movement; R = right-turn movement
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Table 3.15-19

2006 NO BUILD AND BUILD TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
Broadway/6th Avenue/West 34th Street Study Area

Intersection	Direction	Movement	AM Peak Hour									PM Peak Hour								
			No Build Conditions			Build Conditions			Build Mitigation			No Build Conditions			Build Conditions			Build Mitigation		
			V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS
6th Avenue &	EB	LT	1.01	61.3	E	1.05	70.7	E	0.54	17.7	B	0.88	35.0	C	0.91	39.5	D	0.47	16.5	B
W. 30th Street	NB	LT	1.05	56.9	E	1.09	72.4	E	1.05	55.6	E	1.03	50.1	D	1.06	60.6	E	1.02	45.7	D
Intersection			1.03	57.8	E	1.07	72.0	E	0.78	47.8	D	0.95	47.1	D	0.98	56.4	E	0.73	39.9	D
6th Avenue &	WB	TR	0.56	20.7	C	0.58	21.0	C	0.60	22.0	C	0.46	18.8	B	0.47	19.0	B			
W. 31st Street	NB	LT	1.00	37.2	D	1.04	48.4	D	1.01	39.8	D	0.89	22.6	C	0.92	24.5	C			
Intersection			0.79	34.1	C	0.81	43.4	D	0.81	36.5	D	0.68	22.0	C	0.70	23.5	C			
6th Avenue &	EB	LT	0.89	40.0	D	0.93	46.4	D	0.91	41.5	D	0.64	23.9	C	0.66	24.6	C			
W. 32nd Street	NB	LT	0.76	17.9	B	0.79	18.6	B	0.81	19.9	B	0.69	16.6	B	0.72	17.0	B			
Intersection			0.82	22.0	C	0.86	23.8	C	0.86	24.0	C	0.67	17.8	B	0.69	18.1	B			
6th Avenue &	NB	L	0.61	29.6	C	0.63	30.8	C	0.56	25.2	C	0.75	38.0	D	0.77	39.5	D			
W. 33rd Street		T	0.98	40.6	D	1.02	50.7	D	0.97	35.5	D	0.89	29.7	C	0.92	31.6	C			
Intersection			*	39.8	D	*	49.3	D	*	34.7	C	*	30.6	C	*	32.4	C			
6th Avenue & Broadway &	EB	T	0.86	37.8	D	0.87	38.6	D	0.87	38.6	D	0.78	33.0	C	0.79	33.3	C	0.79	33.3	C
W. 34th Street	WB	T	0.89	39.8	D	0.91	41.6	D	0.91	41.6	D	0.91	42.4	D	0.92	43.6	D	0.92	43.6	D
	NB	T	0.60	7.2	A	0.63	7.5	A	0.63	7.5	A	0.53	6.6	A	0.55	6.7	A	0.55	6.7	A
	SB	T	1.00	66.3	E	1.03	74.4	E	0.99	61.6	E	1.33	191.2	F	1.35	201.5	F	1.29	174.7	F
Intersection			0.70	28.4	C	0.72	30.2	C	0.72	28.0	C	0.66	60.7	E	0.68	63.3	E	0.68	56.9	E
6th Avenue &	WB	TR	0.57	26.4	C	0.58	26.8	C				0.50	22.0	C	0.51	22.2	C			
W. 35th Street	NB	LT	0.97	24.4	C	1.01	33.0	C				0.71	14.2	B	0.73	14.6	B			
Intersection			0.82	24.8	C	0.85	31.8	C				0.62	15.7	B	0.64	16.0	B			
6th Avenue &	EB	L	0.92	79.1	E	0.96	88.1	F	0.90	73.2	E	0.93	80.5	F	0.96	87.3	F	0.90	73.4	E
W. 36th Street		T	0.29	15.8	B	0.30	15.8	B	0.29	15.2	B	0.45	17.4	B	0.46	17.6	B	0.45	16.9	B
	NB	TR	0.71	17.6	B	0.74	18.2	B	0.76	19.3	B	0.64	16.6	B	0.66	16.9	B	0.68	18.0	B
Intersection			0.50	21.2	C	0.52	22.2	C	0.52	22.0	C	0.54	20.7	C	0.56	21.4	C	0.56	21.0	C
6th Avenue &	WB	T	0.37	16.5	B	0.38	16.7	B				0.33	16.2	B	0.34	16.2	B			
W. 37th Street		R	0.85	38.5	D	0.86	39.2	D				0.88	40.9	D	0.89	43.1	D			
	NB	LT	0.69	17.3	B	0.72	17.8	B				0.63	16.5	B	0.65	16.7	B			
Intersection			0.77	19.7	B	0.79	20.0	C				0.76	19.8	B	0.77	20.3	C			
6th Avenue &	EB	LT	0.83	35.9	D	0.85	36.8	D				0.84	32.2	C	0.85	32.8	C			
W. 38th Street	NB	TR	0.63	9.2	A	0.65	9.5	A				0.66	13.0	B	0.68	13.3	B			
Intersection			0.71	15.2	B	0.72	15.5	B				0.74	18.2	B	0.75	18.6	B			
Broadway &	EB	TR	0.41	18.0	B	0.42	18.1	B				0.45	18.6	B	0.47	18.8	B			
W. 30th Street	SB	LT	0.51	14.6	B	0.52	14.8	B				0.52	14.7	B	0.53	14.9	B			
Intersection			0.46	15.7	B	0.47	15.9	B				0.49	16.1	B	0.50	16.3	B			
Broadway &	WB	LT	0.77	28.2	C	0.80	29.7	C				0.58	21.6	C	0.59	21.9	C			
W. 31st Street	SB	TR	0.78	21.3	C	0.80	22.3	C				0.87	25.9	C	0.89	27.2	C			
Intersection			0.78	24.0	C	0.80	25.1	C				0.73	24.6	C	0.74	25.6	C			
Broadway &	EB	TR	0.28	16.3	B	0.29	16.4	B				0.29	16.3	B	0.29	16.4	B			
W. 32nd Street	SB	L	0.39	14.7	B	0.40	14.9	B				0.28	13.1	B	0.28	13.1	B			
		T	0.62	16.7	B	0.63	17.0	B				0.68	17.7	B	0.69	18.0	B			
Intersection			0.45	16.3	B	0.47	16.5	B				0.49	16.8	B	0.50	17.0	B			
Broadway &	WB	L	0.33	16.5	B	0.34	16.6	B	0.36	18.1	B	0.33	16.2	B	0.33	16.3	B			
W. 33rd Street	SB	T	0.64	18.6	B	0.66	19.0	B	0.62	16.8	B	0.65	18.7	B	0.66	18.9	B			
Intersection			0.48	18.2	B	0.49	18.5	B	0.49	17.0	B	0.48	18.2	B	0.49	18.4	B			

NB = northbound; SB = southbound; EB = eastbound; WB = westbound
LT = left-turn and through movement; TR = through and right-turn movement; LTR = left-turn, through, and right-turn movement
L = left-turn movement; T = through movement; R = right-turn movement
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Table 3.15-19 (Cont'd)

2006 NO BUILD AND BUILD TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
Broadway/6th Avenue/West 34th Street Study Area

Intersection	Direction	Movement	AM Peak Hour									PM Peak Hour								
			No Build Conditions			Build Conditions			Build Mitigation			No Build Conditions			Build Conditions			Build Mitigation		
			V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS
Broadway &	WB	LT	0.25	7.1	A	0.26	7.2	A				0.21	6.8	A	0.21	6.8	A			
W. 35th Street	SB	TR	0.60	30.6	C	0.61	30.9	C				0.71	33.0	C	0.73	33.3	C			
Intersection			0.35	21.9	C	0.36	22.1	C				0.36	24.9	C	0.36	25.1	C			
Broadway &	EB	TR	0.48	12.6	B	0.49	12.8	B				0.62	14.9	B	0.63	15.0	B			
W. 36th Street	SB	LT	0.48	22.8	C	0.49	23.0	C				0.63	25.1	C	0.64	25.2	C			
Intersection			0.48	18.2	B	0.49	18.3	B				0.62	20.5	C	0.63	20.7	C			
Broadway &	WB	LT	0.54	16.2	B	0.55	16.4	B				0.46	15.0	B	0.46	15.1	B			
W. 37th Street	SB	TR	0.45	18.3	B	0.46	18.5	B				0.55	19.6	B	0.56	19.7	B			
Intersection			0.50	17.3	B	0.51	17.5	B				0.50	17.9	B	0.51	18.0	B			
Broadway &	EB	TR	0.53	18.6	B	0.54	18.8	B				0.53	18.5	B	0.54	18.7	B			
W. 38th Street	SB	LT	0.43	15.1	B	0.44	15.2	B				0.58	16.7	B	0.59	16.9	B			
Intersection			0.48	16.5	B	0.49	16.6	B				0.55	17.3	B	0.56	17.5	B			
5th Avenue &	EB	TR	0.49	18.0	B	0.50	18.1	B				0.46	17.6	B	0.47	17.7	B			
W. 34th Street	WB	T	0.39	16.8	B	0.40	16.9	B				0.40	16.2	B	0.35	16.3	B			
	SB	LT	0.66	17.0	B	0.69	17.6	B				0.51	15.1	B	0.53	15.3	B			
		R	0.38	15.8	B	0.38	15.9	B				0.32	15.0	B	0.32	15.0	B			
Intersection			0.57	17.2	B	0.59	17.5	B				0.49	15.9	B	0.50	16.1	B			
7th Avenue &	EB	TR	0.70	25.2	C	0.71	25.5	C				0.62	23.4	C	0.63	23.5	C			
W. 34th Street	WB	LT	0.76	27.3	C	0.78	27.9	C				0.61	23.2	C	0.62	23.3	C			
	SB	T	0.60	13.2	B	0.63	13.5	B				0.69	14.5	B	0.72	14.9	B			
Intersection			0.67	19.3	B	0.69	19.6	B				0.66	18.1	B	0.68	18.4	B			

NB = northbound; SB = southbound; EB = eastbound; WB = westbound
LT = left-turn and through movement; TR = through and right-turn movement; LTR = left-turn, through, and right-turn movement
L = left-turn movement; T = through movement; R = right-turn movement
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Table 3.15-20

2004 NO BUILD AND BUILD TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
8th Avenue/West 42nd Street Study Area

Intersection	Direction	Movement	AM Peak Hour									PM Peak Hour								
			No Build Conditions			Build Conditions			Build Mitigation			No Build Conditions			Build Conditions			Build Mitigation		
			V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS
8th Avenue &	EB	LT	0.68	24.1	C	0.68	24.2	C				0.49	19.8	B	0.49	19.8	B			
W. 38th Street	NB	TR	0.66	15.6	B	0.67	15.7	B				0.51	14.0	B	0.51	14.1	B			
Intersection			0.67	18.0	B	0.67	18.1	B				0.50	15.9	B	0.50	15.9	B			
8th Avenue &	WB	TR	0.60	20.8	C	0.60	20.9	C				0.59	20.3	C	0.59	20.3	C			
W. 39th Street	NB	LT	0.60	16.3	B	0.61	16.4	B				0.50	16.9	B	0.50	17.0	B			
Intersection			0.60	17.6	B	0.61	17.7	B				0.54	18.2	B	0.55	18.3	B			
8th Avenue &	EB	LT	0.63	19.4	B	0.63	19.5	B				0.39	15.3	B	0.39	15.3	B			
W. 40th Street	NB	TR	0.71	20.5	C	0.72	20.7	C				0.59	20.3	C	0.59	20.4	C			
Intersection			0.67	20.1	C	0.67	20.3	C				0.48	18.8	B	0.48	18.9	B			
8th Avenue &	WB	TR	0.62	18.7	B	0.63	18.9	B				0.93	39.0	D	0.94	41.0	D			
W. 41st Street	NB	L	0.06	18.5	B	0.06	18.5	B				0.04	16.6	B	0.04	16.6	B			
		T	0.80	26.1	C	0.81	26.5	C				0.65	23.6	C	0.66	23.8	C			
Intersection			0.70	24.6	C	0.71	24.9	C				0.82	29.1	C	0.83	29.9	C			
8th Avenue &	EB	LT	0.93	31.8	C	0.94	32.4	C				0.52	15.9	B	0.53	15.9	B			
W. 42nd Street	WB	TR	0.79	36.3	D	0.80	36.5	D				0.91	45.2	D	0.92	46.2	D			
	NB	LT	0.84	25.7	C	0.85	26.1	C				0.87	27.4	C	0.88	28.0	C			
		R	0.50	23.6	C	0.51	23.7	C				0.36	20.8	C	0.36	20.9	C			
Intersection			0.89	28.9	C	0.90	29.4	C				0.67	28.3	C	0.68	28.8	C			
8th Avenue &	WB	TR	1.02	68.5	E	1.04	72.0	E				0.94	49.0	D	0.95	51.1	D			
W. 43rd Street	NB	LT	0.73	14.5	B	0.74	14.6	B				0.49	11.2	B	0.49	11.2	B			
Intersection			0.86	27.0	C	0.87	27.9	C				0.69	20.9	C	0.70	21.5	C			
8th Avenue &	EB	LT	0.54	26.1	C	0.54	26.1	C				0.46	24.7	C	0.46	24.7	C			
W. 44th Street	NB	T	0.61	9.2	A	0.62	9.3	A				0.50	8.1	A	0.50	8.2	A			
		R	0.38	8.7	A	0.39	8.8	A				0.28	7.6	A	0.28	7.6	A			
Intersection			0.58	11.9	B	0.59	12.0	B				0.48	10.8	B	0.49	10.8	B			
8th Avenue &	WB	TR	0.73	31.6	C	0.74	31.9	C				1.02	65.5	E	1.03	68.9	E			
W. 45th Street	NB	LT	0.63	9.4	A	0.64	9.5	A				0.52	8.3	A	0.53	8.4	A			
Intersection			0.67	14.2	B	0.68	14.3	B				0.71	25.3	C	0.72	26.4	C			
8th Avenue &	EB	LT	0.62	27.4	C	0.62	27.4	C				0.58	26.8	C	0.59	26.9	C			
W. 46th Street	NB	T	0.57	8.7	A	0.58	8.8	A				0.57	8.7	A	0.57	8.8	A			
		R	0.45	9.7	A	0.46	9.8	A				0.26	7.4	A	0.26	7.4	A			
Intersection			0.59	12.7	B	0.59	12.7	B				0.57	12.2	B	0.58	12.2	B			
9th Avenue &	EB	T	1.14	104.5	F	1.14	106.0	F				0.71	29.8	C	0.71	29.9	C			
		R	0.49	28.9	C	0.50	29.0	C				0.62	33.1	C	0.63	33.2	C			
W. 42nd Street	WB	LT	0.52	17.0	B	0.53	17.1	B				0.63	18.9	B	0.64	18.9	B			
	SB	LTR	0.83	24.8	C	0.83	25.0	C				0.85	25.1	C	0.85	25.3	C			
Intersection			0.66	43.3	D	0.67	43.7	D				0.73	25.0	C	0.73	25.1	C			
7th Avenue &	EB	TR	1.25	147.1	F	1.25	149.8	F				0.70	26.3	C	0.70	26.5	C			
W. 42nd Street	WB	LT	0.63	25.0	C	0.64	25.2	C				0.74	28.1	C	0.75	28.3	C			
	SB	LTR	0.57	11.4	B	0.58	11.4	B				0.47	10.3	B	0.47	10.4	B			
Intersection			0.86	50.2	D	0.87	50.9	D				0.58	17.4	B	0.59	17.4	B			

NB = northbound; SB = southbound; EB = eastbound; WB = westbound
LT = left-turn and through movement; TR = through and right-turn movement; LTR = left-turn, through, and right-turn movement
L = left-turn movement; T = through movement; R = right-turn movement
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Table 3.15-21

2005 NO BUILD AND BUILD TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
8th Avenue/West 42nd Street Study Area

Intersection	Direction	Movement	AM Peak Hour									PM Peak Hour								
			No Build Conditions			Build Conditions			Build Mitigation			No Build Conditions			Build Conditions			Build Mitigation		
			V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS
8th Avenue &	EB	LT	0.68	24.2	C	0.69	24.4	C				0.49	19.9	B	0.50	19.9	B			
W. 38th Street	NB	TR	0.66	15.7	B	0.68	15.9	B				0.51	14.1	B	0.53	14.3	B			
Intersection			0.67	18.1	B	0.68	18.3	B				0.51	15.9	B	0.51	16.0	B			
8th Avenue &	WB	TR	0.60	20.8	C	0.61	21.1	C				0.59	20.3	C	0.60	20.5	C			
W. 39th Street	NB	LT	0.60	16.3	B	0.62	16.5	B				0.50	17.0	B	0.52	17.1	B			
Intersection			0.60	17.6	B	0.62	17.9	B				0.55	18.3	B	0.56	18.4	B			
8th Avenue &	EB	LT	0.64	19.5	B	0.64	19.6	B				0.39	15.4	B	0.39	15.4	B			
W. 40th Street	NB	TR	0.71	20.6	C	0.73	21.0	C				0.59	20.4	C	0.61	20.7	C			
Intersection			0.67	20.2	C	0.68	20.5	C				0.48	18.9	B	0.49	19.1	B			
8th Avenue &	WB	TR	0.63	18.8	B	0.65	19.4	B				0.96	43.4	D	0.98	48.3	D			
W. 41st Street	NB	L	0.06	18.5	B	0.06	18.5	B				0.04	16.6	B	0.04	16.6	B			
		T	0.81	26.3	C	0.83	27.0	C				0.66	23.8	C	0.67	24.1	C			
Intersection			0.70	24.7	C	0.72	25.4	C				0.83	30.8	C	0.86	32.8	C			
8th Avenue &	EB	LT	1.00	44.2	D	1.01	45.7	D				0.54	16.0	B	0.54	16.1	B	0.54	16.1	B
W. 42nd Street	WB	TR	0.80	36.9	D	0.81	37.5	D				1.02	67.8	E	1.04	71.8	E	1.00	60.4	E
	NB	LT	0.85	25.9	C	0.87	26.9	C				0.87	27.7	C	0.89	28.9	C	0.89	28.9	C
		R	0.50	23.7	C	0.52	24.1	C				0.36	20.8	C	0.37	21.0	C	0.37	21.0	C
Intersection			0.93	33.1	C	0.95	34.1	C				0.68	33.6	C	0.69	35.1	D	0.69	32.7	C
8th Avenue &	WB	TR	1.03	70.4	E	1.05	77.6	E	1.02	67.3	E	0.95	50.5	D	0.97	54.4	D			
W. 43rd Street	NB	LT	0.74	14.6	B	0.75	14.9	B	0.77	16.0	B	0.49	11.2	B	0.50	11.3	B			
Intersection			0.87	27.6	C	0.89	29.5	C	0.88	27.9	C	0.69	21.3	C	0.71	22.3	C			
8th Avenue &	EB	LT	0.54	26.1	C	0.54	26.2	C				0.46	24.8	C	0.46	24.8	C			
W. 44th Street	NB	T	0.61	9.2	A	0.63	9.4	A				0.50	8.1	A	0.51	8.3	A			
		R	0.39	8.8	A	0.39	8.8	A				0.28	7.6	A	0.28	7.6	A			
Intersection			0.59	12.0	B	0.60	12.1	B				0.49	10.8	B	0.49	10.9	B			
8th Avenue &	WB	TR	0.74	31.8	C	0.76	32.5	C				1.02	67.8	E	1.05	75.7	E	1.01	63.5	E
W. 45th Street	NB	LT	0.64	9.5	A	0.65	9.7	A				0.53	8.4	A	0.57	8.5	A	0.55	9.2	A
Intersection			0.68	14.2	B	0.69	14.5	B				0.71	26.0	C	0.73	28.5	C	0.73	25.4	C
8th Avenue &	EB	LT	0.62	27.5	C	0.63	27.5	C				0.59	27.0	C	0.59	27.0	C			
W. 46th Street	NB	T	0.57	8.8	A	0.59	8.9	A				0.57	8.7	A	0.59	8.9	A			
		R	0.45	9.7	A	0.46	9.9	A				0.26	7.4	A	0.27	7.5	A			
Intersection			0.59	12.7	B	0.60	12.8	B				0.58	12.3	B	0.59	12.4	B			
9th Avenue &	EB	T	1.22	136.8	F	1.23	139.5	F				0.73	30.3	C	0.73	30.5	C			
		R	0.50	29.0	C	0.50	29.1	C				0.63	33.2	C	0.64	33.6	C			
W. 42nd Street	WB	LT	0.53	17.1	B	0.54	17.3	B				0.68	19.8	B	0.69	20.0	B			
	SB	LTR	0.85	25.4	C	0.86	25.9	C				0.86	25.5	C	0.87	25.9	C			
Intersection			0.67	52.7	D	0.68	53.4	D				0.76	25.4	C	0.77	25.7	C			
7th Avenue &	EB	TR	1.27	155.4	F	1.28	161.3	F	1.24	144.6	F	0.83	31.6	C	0.84	32.0	C			
W. 42nd Street	WB	LT	0.68	26.3	C	0.69	26.7	C	0.67	25.2	C	0.76	28.8	C	0.77	29.1	C			
	SB	LTR	0.59	11.6	B	0.61	11.7	B	0.62	12.6	B	0.47	10.4	B	0.48	10.5	B			
Intersection			0.88	52.4	D	0.89	53.7	D	0.89	49.6	D	0.63	19.0	B	0.63	19.2	B			

NB = northbound; SB = southbound; EB = eastbound; WB = westbound
LT = left-turn and through movement; TR = through and right-turn movement; LTR = left-turn, through, and right-turn movement
L = left-turn movement; T = through movement; R = right-turn movement
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Table 3.15-22

2006 NO BUILD AND BUILD TRAFFIC CONDITIONS
Level of Service (LOS) Analysis Results
8th Avenue/West 42nd Street Study Area

Intersection	Direction	Movement	AM Peak Hour									PM Peak Hour								
			No Build Conditions			Build Conditions			Build Mitigation			No Build Conditions			Build Conditions			Build Mitigation		
			V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay	LOS
8th Avenue &	EB	LT	0.69	24.4	C	0.70	24.7	C				0.50	19.9	B	0.51	20.1	C			
W. 38th Street	NB	TR	0.69	16.1	B	0.72	16.6	B				0.53	14.3	B	0.55	14.5	B			
Intersection			0.69	18.4	B	0.71	18.8	B				0.51	16.0	B	0.53	16.2	B			
8th Avenue &	WB	TR	0.61	21.0	C	0.62	21.3	C				0.60	20.4	C	0.61	20.7	C			
W. 39th Street	NB	LT	0.63	16.8	B	0.66	17.1	B				0.52	17.2	B	0.53	17.4	B			
Intersection			0.62	18.0	B	0.64	18.3	B				0.56	18.4	B	0.57	18.6	B			
8th Avenue &	EB	LT	0.71	21.4	C	0.72	21.6	C				0.41	15.5	B	0.41	15.6	B			
W. 40th Street	NB	TR	0.75	21.3	C	0.78	22.0	C				0.61	20.7	C	0.63	21.0	C			
Intersection			0.73	21.4	C	0.74	21.9	C				0.50	19.1	B	0.51	19.4	B			
8th Avenue &	WB	TR	0.64	19.0	B	0.66	19.8	B				0.98	48.4	D	1.01	57.0	E	0.99	49.6	D
W. 41st Street	NB	L	0.06	18.5	B	0.06	18.5	B				0.04	16.6	B	0.04	16.6	B	0.04	17.5	B
		T	0.83	27.0	C	0.86	28.3	C				0.67	24.0	C	0.69	24.5	C	0.71	25.8	C
Intersection			0.72	25.4	C	0.74	26.6	C				0.85	32.8	C	0.88	36.2	D	0.88	34.4	C
8th Avenue &	EB	LT	1.01	45.7	D	1.01	47.7	D				0.54	16.0	B	0.54	16.1	B	0.54	16.1	B
W. 42nd Street	WB	TR	0.82	37.9	D	0.84	39.0	D				1.15	110.0	F	1.17	118.6	F	1.12	100.0	F
	NB	LT	0.87	26.8	C	0.90	28.7	C				0.88	28.4	C	0.92	30.6	C	0.92	30.6	C
		R	0.51	23.7	C	0.53	24.4	C				0.36	20.8	C	0.38	21.2	C	0.38	21.2	C
Intersection			0.95	34.1	C	0.96	35.8	D				0.69	44.3	D	0.71	47.3	D	0.71	43.1	D
8th Avenue &	WB	TR	1.04	73.0	E	1.07	83.1	F	1.04	72.0	E	0.96	51.7	D	0.99	58.1	E	0.96	51.0	D
W. 43rd Street	NB	LT	0.75	14.9	B	0.78	15.4	B	0.79	16.6	B	0.50	11.3	B	0.52	11.4	B	0.53	12.2	B
Intersection			0.88	28.2	C	0.91	30.9	C	0.91	29.3	C	0.70	21.6	C	0.72	23.3	C	0.72	22.1	C
8th Avenue &	EB	LT	0.54	26.2	C	0.55	26.3	C				0.47	24.9	C	0.47	24.9	C			
W. 44th Street	NB	T	0.63	9.4	A	0.65	9.7	A				0.51	8.2	A	0.53	8.4	A			
		R	0.39	8.8	A	0.40	8.9	A				0.28	7.6	A	0.29	7.7	A			
Intersection			0.60	12.1	B	0.61	12.2	B				0.49	10.9	B	0.51	11.0	B			
8th Avenue &	WB	TR	0.74	32.0	C	0.77	33.2	C				1.03	69.3	E	1.07	82.1	F	1.03	68.8	E
W. 45th Street	NB	LT	0.65	9.7	A	0.68	10.0	A				0.53	8.4	A	0.55	8.6	A	0.56	9.3	A
Intersection			0.69	14.4	B	0.71	14.8	B				0.72	26.4	C	0.75	30.3	C	0.75	26.9	C
8th Avenue &	EB	LT	0.63	27.5	C	0.63	27.7	C				0.59	27.0	C	0.60	27.1	C			
W. 46th Street	NB	T	0.58	8.8	A	0.60	9.0	A				0.58	8.8	A	0.60	9.0	A			
		R	0.45	9.8	A	0.48	10.1	B				0.26	7.4	A	0.27	7.5	A			
Intersection			0.60	12.7	B	61.00	12.9	B				0.58	12.3	B	0.60	12.4	B			
9th Avenue &	EB	T	1.23	139.5	F	1.24	143.9	F	1.20	126.3	F	0.73	30.5	C	0.74	30.7	C			
		R	0.71	38.0	D	0.72	38.5	D	0.69	35.8	D	0.67	35.2	D	0.68	35.8	D			
W. 42nd Street	WB	LT	0.54	17.3	B	0.55	17.5	B	0.55	17.5	B	0.73	21.0	C	0.74	21.4	C			
	SB	LTR	0.86	26.2	C	0.88	26.9	C	0.88	26.9	C	0.87	25.9	C	0.88	26.7	C			
Intersection			0.69	53.5	D	0.70	54.8	D	0.70	50.3	D	0.79	25.9	C	0.81	26.5	C			
7th Avenue &	EB	TR	1.29	164.5	F	1.31	175.2	F	1.27	157.9	F	0.98	48.5	D	0.99	51.8	D			
W. 42nd Street	WB	LT	0.69	26.6	C	0.71	27.2	C	0.68	25.6	C	0.77	29.2	C	0.78	29.8	C			
	SB	LTR	0.61	11.7	B	0.63	12.0	B	0.64	12.8	B	0.48	10.4	B	0.50	10.6	B			
Intersection			0.90	54.8	D	0.92	57.4	E	0.92	53.1	D	0.69	23.9	C	0.71	24.8	C			

NB = northbound; SB = southbound; EB = eastbound; WB = westbound
LT = left-turn and through movement; TR = through and right-turn movement; LTR = left-turn, through, and right-turn movement
L = left-turn movement; T = through movement; R = right-turn movement
* Volume-to-capacity (v/c) ratio for this intersection is not estimated by HCS.

Third Avenue/East 57th Street Study Area

Third Avenue/East 57th Street

- Weekday AM peak hour delays for eastbound through movements are projected to increase from the LOS E range under the 2003 existing conditions to the LOS F range under 2004, 2005, and 2006 no-build conditions.

- Weekday AM peak hour delays for eastbound left-turn movements are projected to increase from the LOS D range under the 2003 existing conditions to the LOS E range under 2005 and 2006 no-build conditions.

- Weekday PM peak hour delays on the eastbound approach are projected to increase from the LOS D range under the 2003 existing conditions to the LOS E range under 2004, 2005, and 2006 no-build conditions.

Third Avenue/East 61st Street

- Weekday AM peak hour delays on the westbound approach are projected to increase from the LOS D range under the 2003 existing conditions to the LOS E range under 2004, 2005, and 2006 no-build conditions.

Second Avenue/57th Street

- Weekday AM peak hour delays for westbound left-turn movements are projected to increase from the LOS E range under the 2003 existing conditions to the LOS F range under the 2006 no-build conditions.

- Weekday PM peak hour delays for eastbound through movements are projected to increase from the LOS E range under the 2003 existing conditions to the LOS F range under 2005 and 2006 no-build conditions.

Fifth Avenue/42nd Street Study Area

Fifth Avenue/42nd Street

- Weekday AM peak hour delays on the westbound approach are projected to increase from the LOS E range under the 2003 existing conditions to the LOS F range under 2004, 2005, and 2006 no-build conditions.

- Weekday PM peak hour delays on the westbound approach are projected to increase from the LOS D range under the 2003 existing conditions to the LOS E range under 2004, 2005, and 2006 no-build conditions.

Sixth Avenue/42nd Street

- Weekday AM peak hour delays on the westbound approach are projected to increase from the LOS E range under the 2003 existing conditions to the LOS F range under 2006 no-build conditions.

Madison Avenue/East 42nd Street

- Weekday AM peak hour delays on the eastbound approach are projected to increase from the LOS E range under the 2003 existing conditions to the LOS F range under 2004, 2005, and 2006 no-build conditions.

Vanderbilt Avenue/East 42nd Street

- Weekday AM peak hour delays on the westbound approach are projected to increase from the LOS D range under Existing Conditions to the LOS E range under 2004, 2005, and 2006 No-Build Conditions.

Broadway/Sixth Avenue/West 34th Street Study Area

Sixth Avenue/West 30th Street

- Weekday AM peak hour delays on the northbound approach are projected to increase from the LOS D range under the 2003 existing conditions to the LOS E range under 2006 no-build conditions.

Sixth Avenue/Broadway/West 34th Street

- Weekday AM peak hour delays on the southbound approach are projected to increase from the LOS D range under the 2003 existing conditions to the LOS E range under 2004, 2005, and 2006 no-build conditions.

- Weekday PM peak hour delays on the southbound approach are projected to increase from the LOS E range under the 2003 existing conditions to the LOS F range under 2004, 2005, and 2006 no-build conditions.

Sixth Avenue/West 36th Street

- Weekday PM peak hour delays on the eastbound approach are projected to increase from the LOS E range under the 2003 existing conditions to the LOS F range under 2006 no-build conditions.

Eighth Avenue/West 42nd Street Study Area

Eighth Avenue/West 41st Street

- Weekday PM peak hour delays on the westbound approach are projected to increase from the LOS C range under the 2003 existing conditions to beyond the mid-level LOS D range under the 2006 no-build conditions.

Eighth Avenue/West 42nd Street

- Weekday AM peak hour delays on the eastbound approach are projected to increase from the LOS C range under the 2003 existing conditions to beyond the mid-level LOS D range under the 2006 no-build conditions.

- Weekday PM peak hour delays on the westbound approach are projected to increase from the LOS D range under the 2003 existing conditions to the LOS E range under the 2005 no-build conditions and to the LOS F range under the 2006 no-build conditions.

Ninth Avenue/West 42nd Street

- Weekday AM peak hour delays on the eastbound approach are projected to increase from the LOS D range under the 2003 existing conditions to the LOS F range under 2004, 2005, and 2006 no-build conditions.

Seventh Avenue/West 42nd Street

- Weekday AM peak hour delays on the eastbound approach are projected to increase from the LOS E range under the 2003 existing conditions to the LOS F range under 2004, 2005, and 2006 no-build conditions.

- Weekday PM peak hour delays on the eastbound approach are projected to increase from the LOS C range under the 2003 existing conditions to beyond the mid-level LOS D range under 2006 no-build conditions.

3.15.5 Future Conditions with the Proposed Action

The "with-action" conditions analysis evaluates future traffic operations with the proposed phased increase in taxi medallions. This with-action condition is also commonly referred to as the "build" condition. Implementation of the proposed medallion increase is anticipated to occur in phases over the next three years, with an additional 300 medallions being added each year. Consequently, by 2006, a total of 900 additional medallions are proposed to be added.

Trip Generation/Distribution/Assignment

A factoring approach was used to estimate the number of additional taxis projected to occur within each of the five study areas, during each weekday peak hour, under each of the three horizon years. The incremental number of additional future taxis added at each study intersection was estimated based on the ratios of existing taxis observed at a particular intersection during the peak hours to the total taxi medallion pool within New York City. These ratios were applied to the projected future taxi pool to estimate the increase in taxis at each study intersection during each weekday peak hour. This increment was further assigned to each approach leg of the intersection based on existing turning movement patterns. This methodology was repeated for each of the three horizon years. Figures A-41 through A-70 in Appendix A illustrate the incremental weekday AM and PM peak hour traffic volumes within each of the five study areas in horizon years 2004, 2005, and 2006.

Build Traffic Conditions Analysis

The incremental weekday AM and PM peak hour traffic volumes for each horizon year (shown in Figures A-41 through A-70 in Appendix A) were added to the corresponding weekday AM and PM peak hour no-build conditions traffic volumes (shown in Figures A-11 through A-40) to arrive at the weekday AM and PM peak hour build conditions traffic volumes (shown in Figures A-71 through A-100).

Level of service analyses were then conducted for all of the study intersections within each of the five study areas using the forecasted weekday peak hour turning movement volumes for future year 2004, 2005, and 2006 build conditions. Tables 3.15-8 through 3.15-22 summarize the weekday peak hour operational characteristics (including volume-to-capacity ratios, average control delays, and corresponding levels-of-service) for intersections within each of the five study areas under future year 2004, 2005, and 2006 build conditions, and provide a side-by-side comparison of the build LOS results with the no-build LOS results. Based on these LOS analyses, significant impacts resulting from the proposed medallion program were determined, in accordance with the criteria described in the following section.

CEQR Traffic Impact Criteria

To identify potential significant traffic impacts associated with a proposed development, section 410 of New York City's *City Environmental Quality Review (CEQR) Technical Manual* presents the following impact criteria under "Determination of Significant Traffic Impacts":

- Intersection level-of-service deterioration within the range of LOS "A" through LOS "C" should not be considered a significant traffic impact.

- Levels-of-service that deteriorate from acceptable LOS "A," "B," or "C" to marginally unacceptable LOS "D" or unacceptable LOS "E" or "F" in the future build condition should be considered significant impacts.

- For LOS "D," an increase of five or more seconds of delay in a lane group should be considered significant.

- For LOS "E," four seconds of delay should be considered significant.

- For LOS "F," three seconds of delay should be considered significant. However, if the current (or projected future no-build) LOS "F" condition already has delays in excess of 120 seconds, a delay of more than one second should be considered significant.

These criteria were applied to the build conditions LOS analyses, relative to the no-build conditions LOS analyses, to project significant traffic impacts resulting from implementation of the proposed medallion program.

Projected Traffic Impacts

A comparison of the no-build and build delays and levels-of-service shown in Tables 3.15-8 through 3.15-22 reveals that under build conditions, significant traffic impacts (according to the *CEQR* criteria stated above) are projected to occur at the study intersections. Significant impacts are projected to occur in each phase of the medallion sale, starting with the first sale of 300 medallions in 2004. However, most of the impacted lane groups and/or approaches at the study intersections are projected to be mitigated by reallocating of one second of green time and are presented in Appendix B. The impacted lane groups and/or approaches at the study intersections that require more than one second of green time to be reallocated, or require other mitigations measures, are discussed below:

3rd Avenue/East 57th Street Study Area

3rd Avenue/East 56th Street

- In 2006, weekday PM peak hour delays on the eastbound approach are projected to increase from 66.8 seconds/vehicle (LOS E) under no-build conditions to 76.5 seconds/vehicle (LOS E) under build conditions. *Reallocate two (2) seconds of green time from the northbound phase to the eastbound phase during the weekday PM peak hour.*

5th Avenue/42nd Street Study Area

5th Avenue/42nd Street

- In 2006, weekday AM peak hour delays on the westbound approach are projected to increase from 93.9 seconds/vehicle (LOS F) under no-build conditions to 115.0 seconds/vehicle (LOS F) under build conditions. *Reallocate two (2) seconds of green time from the southbound phase to the eastbound/westbound phase during the weekday AM peak hour.*

Madison Avenue/East 42nd Street

- In 2006, weekday AM peak hour delays on the eastbound approach are projected to increase from 132.7 seconds/vehicle (LOS F) under no-build conditions to 161.4 seconds/vehicle (LOS F) under build conditions. In addition, weekday AM peak hour delays on the westbound approach are projected to increase from 78.1 seconds/vehicle (LOS E) under no-build conditions to 93.8 seconds/vehicle (LOS F) under build conditions. *Reallocate two (2) seconds of green time from the northbound phase to the eastbound/westbound phase during the weekday AM peak hour.*

Broadway/6th Avenue/West 34th Street Study Area

6th Avenue/West 30th Street

- In 2005, weekday AM peak hour delays on the eastbound approach are projected to increase from 59.9 seconds/vehicle (LOS E) under no-build conditions to 66.0 seconds/vehicle (LOS E) under build conditions, and weekday AM peak hour delays on the northbound approach are projected to increase from 54.3 seconds/vehicle (LOS D) under no-build conditions to 64.0 seconds/vehicle (LOS E) under build conditions. In addition, weekday PM peak hour delays on the northbound approach are projected to increase from 47.7 seconds/vehicle (LOS D) under no-build conditions to 54.3 seconds/vehicle (LOS D) under build conditions.

- In 2006, weekday AM peak hour delays on the eastbound approach are projected to increase from 61.3 seconds/vehicle (LOS E) under no-build conditions to 70.7 seconds/vehicle (LOS E) under build conditions, and weekday AM peak hour delays on the northbound approach are projected to increase from 56.9 seconds/vehicle (LOS E) under no-build conditions to 72.4 seconds/vehicle (LOS E) under build conditions. In addition, weekday PM peak hour delays on the northbound approach are projected to increase from 50.1 seconds/vehicle (LOS D) under no-build conditions to 60.6 seconds/vehicle (LOS E) under build conditions.

- *Under both 2005 and 2006 build conditions, eliminate on-street parking regulations on the eastbound approach, east of the parking garage access driveway on the south side of West 30th Street. Re-stripe the eastbound approach to accommodate one 10-foot shared left-turn/through lane and one 10-foot through lane. In addition, under the 2006 build conditions, reallocate one (1) second of green time from the eastbound phase to the northbound phase during the weekday AM and PM peak hours.*

6th Avenue/West 33rd Street

- In 2006, weekday AM peak hour delays for northbound through movements are projected to increase from 40.6 seconds/vehicle (LOS D) under no-build conditions to 50.7 seconds/vehicle (LOS D) under build conditions. *Reallocate two (2) seconds of green time from the leading pedestrian phase to the northbound phase during the weekday AM peak hour.*

3.15.6 Parking

The proposed project is not expected to have significant impacts on on-street or off-street parking. Therefore, quantitative analyses of these parking impacts elements are not considered necessary. Parking of taxicabs would be absorbed by additional space available at taxi garages and lots and other current means of parking already established for taxicabs.

3.16 TRANSIT AND PEDESTRIANS

Transit and pedestrian analyses are used to determine the potential for a proposed action to have a significant adverse impact on transportation facilities and pedestrian flows in the City. These analyses consider the capacity of current rail and bus service and pedestrian facilities (i.e. sidewalks, crosswalks) to accommodate changes in use and volume as a result of the proposed action.

The *CEQR Technical Manual* has guidelines for determining if a proposed action warrants a detailed transit and pedestrian assessment. According to CEQR, if an action would result in development densities less than shown in Table 3O-1 of the *CEQR Technical Manual* a transit and pedestrian assessment is usually not warranted, except in unusual circumstances. If the proposed action is projected to result in fewer than 200 peak hour transit trips a transit assessment is generally not warranted. And, if an action would result in residential or office projects that are less than 50 percent of the levels identified in Table 3O-1 a detailed pedestrian assessment is usually not required.

As part of the proposed action the number of new taxi medallions would increase by 300 a year over a three-year period starting in the fiscal year ending June 30, 2004. The final total in fiscal year ending 2006 would be 900 total additional taxi medallions in the City. While this would result in additional vehicles on New York City's street network, as taxicab shifts are staggered over 24 hours, only a portion of the 900 medallions would be on the streets at any point in time. Moreover, 900 total additional taxicabs is a small number relative to the total of vehicles on the City's streets in any peak hour and would not be considered to significantly increase vehicle miles traveled in New York City.

The proposed project is not expected to have a significant impact on transit and pedestrians in New York City. The action is not likely to result in residential or commercial development and therefore it would remain below the levels put forth in Table 3O-1 in the *CEQR Technical Manual*. Moreover, the action is not anticipated to result in more than 200 peak hour transit trips. Hence, no significant adverse transit and pedestrian impacts are expected as a result of the proposed action and no further assessment of impacts is warranted.

3.17 AIR QUALITY

3.17.1 National Ambient Air Quality Standards

The US Environmental Protection Agency (USEPA), under the requirements of the 1970 Clean Air Act (CAA) as amended in 1977 and 1990, has established National Ambient Air Quality Standards (NAAQS) for six contaminants, referred to as criteria pollutants (40 CFR 50). These are carbon monoxide (CO), nitrogen dioxide (NOx), ozone (O3), particulate matter (PM_{10}), lead (Pb), and sulfur dioxide (SO2). The NAAQS standards include primary and secondary standards. The primary standards were established at levels sufficient to protect public health with an adequate margin of safety. The secondary standards were established to protect the public welfare from the adverse effects associated with pollutants in the ambient air. A description of the criteria pollutants and their general effects on public health and welfare is presented in Table 3.17-1. The primary and secondary standards are presented in Table 3.17-2.

The CAA requires that the USEPA review scientific data every five years to ensure that the NAAQS effectively protect the public health. Effective on September 16, 1997, the USEPA enacted a more stringent standard for O3. The final standard was updated from 0.12 parts per million (ppm) of O3 measured over one hour to 0.08 ppm measured over eight hours, with the average fourth-highest concentration over a three-year period determining whether or not an area is considered to be in compliance.

Additionally, on July 18, 1997, the USEPA issued a new standard for particulate matter (PM). The standard for PM_{10} (diameter = 10 micrometers) remains essentially unchanged, while a new standard for fine particles ($PM_{2.5}$: diameter = 2.5 micrometers) is set at an annual limit of 15 micrograms per cubic meter (µg/m3), with a 24-hour limit of 65 µg/m3. Because this new standard would regulate fine particulates for the first time, the USEPA allowed five years to build a nationwide monitoring network and to collect and analyze the data needed to designate areas and develop implementation plans.

Both the revised O3 and new $PM_{2.5}$ standards have been contested in court over the past few years. In February 2001, the Supreme Court upheld the USEPA's authority under the CAA to set national air quality standards. On March 26, 2002, the District of Columbia Circuit Court rejected all remaining challenges to both standards. Therefore, it is expected that the USEPA will move forward with programs to implement both new standards.

Table 3.17-1

Criteria Pollutants - Their Sources and Effects

Pollutants and Their Sources	Health and Welfare Effects
Ozone (O_3): O_3 is not emitted directly into the atmosphere. It results from a series of complex chemical reactions involving primarily nitrogen dioxides and volatile organic compounds in the presence of heat and sunlight. These reactions are time-dependent and usually take place far downwind from the site where the ozone precursors were originally emitted. These precursors are emitted typically by motor vehicle and industrial processes using solvents.	Health: O_3 is a highly reactive gas that irritates the mucous membranes and other lung tissues, causing respiratory impairment. O_3 has been found to affect not only those with respiratory problems, such as asthma, but also healthy adults and children. Effects include breathing difficulty when exercising and reduced resistance to respiratory infections. Acute exposures cause bronchial constriction, lung edema, and abnormal lung development. Welfare: Toxic to plants, causing leaf damage and decreased growth. Weakens materials such as rubber and fabrics.
Carbon Monoxide (CO): The major source of CO is the incomplete combustion of fuels used to power vehicles, etc. Motor vehicles are the principal source of urban CO emissions. CO is a site-specific pollutant. High levels of CO are found near the source, e.g., heavily congested intersections. Other sources include power plants, industrial processes, and space heating.	Health: CO enters the bloodstream by combining with hemoglobin, which reduces the amount of oxygen carried to organs and tissues. The health threat is most severe for those with cardiovascular disease. Healthy individuals are affected at higher concentrations (>30 ppm). Symptoms include shortness of breath, chest pain, headaches, confusion, and loss of coordination. Welfare: No known effect on materials or vegetation.
Sulfur Dioxide (SO_2): SO_2 results largely from the combustion of sulfur-bearing fuels such as coal and oil in heat and power generation facilities. Other sources include pulp and paper mills, refineries, and non-ferrous smelters. The combustion of gasoline and diesel fuels in motor vehicles accounts for a very small percentage of the total sulfur dioxides emitted.	Health: SO_2 combines with water vapor to form acidic aerosols that irritate the respiratory tract. It aggravates symptoms associated with chronic lung diseases such as asthma and bronchitis. Welfare: SO_2 is a primary contributor to acid deposition that causes acidification of lakes and streams. Acid deposition also damages materials (corrodes metals and degrades rubber and fabrics), injures vegetation, and causes visibility degradation.
Nitrogen Dioxide (NO_2): NO_2 is formed in the atmosphere from the oxidation of nitric oxide (NO). The major source of NO is fuel combustion in boilers and engines associated with power plants, motor vehicles, industrial furnaces, and space heating.	Health: NO_2 can cause irritation to the lungs and lower resistance to respiratory infections, and can aggravate symptoms associated with asthma and bronchitis. Welfare: NO_2 decreases visibility by causing a reddish-brown haze. It contributes to acid depositions that cause acidification of lakes and streams, as well as plant injury and damage to materials (metals, rubber, fabric).
Particulates (PM_{10}): Particulate matter consists of tiny airborne particles or aerosols such as dust, dirt, smoke, and liquid droplets. It occurs as a result of incomplete fuel combustion. PM_{10} encompasses particulate matter with an aerodynamic diameter of 10 microns or less. Sources include factories, power plants, motor vehicles, construction activities, and fires. Diesel fuel contributes more particulates to the atmosphere than does gasoline.	Health: PM_{10} particles, because of their small size, can be inhaled. Health effects are often not immediately noticed. The particulates can accumulate in the lungs after long-term exposure and affect breathing and respiratory symptoms. The lungs' natural cleansing and defense mechanisms are impaired. Welfare: Causes soiling and corrosion to materials. Decreases visibility by forming atmospheric haze.
Lead (Pb): The primary source for airborne Pb used to be motor vehicles, but the use of unleaded gas has dramatically reduced Pb emissions.	Health: Causes mental retardation and brain damage (especially in children) and liver disease. May be a factor in high blood pressure. Damages the nervous system. Welfare: No direct impact on vegetation.

Table 3.17-2

National and New York State Ambient Air Quality Standards

Pollutant and Averaging Time	Primary Standard[1]	Secondary Standard[1]
Carbon Monoxide		
8-Hour Maximum	9 ppm[3]	9 ppm
1-Hour Maximum	35 ppm[3]	35 ppm
Nitrogen Dioxide		
Annual Arithmetic Mean	100[2]	100
Ozone		
1-Hour Maximum	0.12 ppm[4]	0.12 ppm
8-Hour Maximum	0.08 ppm[5]	0.08 ppm
Particulate Matter[9]		
PM_{10}		
Annual Arithmetic Mean	50[2]	50
24-Hour Maximum	150[6]	150
$PM_{2.5}$		
Annual Arithmetic Mean	15[2]	15
24-Hour Maximum	65[7]	65
Lead		
Quarterly Arithmetic Mean	1.5[8]	1.5
Sulfur Dioxide		
Annual Arithmetic Mean	80[2]	---
24-Hour Maximum	365[3]	---
3-Hour Maximum	---	1300[3]

Notes:
1. All concentrations in micrograms per cubic meter of air ($\mu g/m^3$) or, except where noted(ppm.
2. Not to be exceeded during any calendar year.
3. Not to be exceeded more than once a year.
4. Expected number of exceedances shall not be more than once per year (3-year average).
5. Standard attained when 3-year average of annual 4th-highest daily maximum 8-hour concentration is below 0.08 ppm.
6. Standard attained when annual highest 99th percentile of 24-hour concentrations over 3 years is below 150 $\mu g/m^3$.
7. Standard attained when the annual highest 98th percentile of 24-hour concentration over 3 years is below 65 $\mu g/m^3$.
8. The quarterly lead standard is not to be exceeded during any calendar quarter.
9. PM_{10} - particulate matter diameter of 10 microns or less; $PM_{2.5}$ - particulate matter diameter of 2.5 microns or less.

Sources: 40 CFR 50; USEPA Fact Sheets, July 1997; USEPA Press Release, March 26, 2002.

3.17.2 National Ambient Air Quality Standard Attainment Status

Areas that meet the NAAQS standard for a criteria pollutant are designated as being "in attainment;" areas where a criteria pollutant level exceeds the NAAQS are designated as being "in non-attainment." O3 non-attainment areas are categorized based on the severity of their pollution problem--marginal, moderate, serious, severe, or extreme. CO and PM_{10} non-attainment areas are categorized as moderate or serious. When a nonattainment area is redesignated as an attainment area, the CAAA require that a maintenance plan be in place to ensure continued compliance of the corresponding NAAQS in such former nonattainment area. Therefore a former nonattainment area is also defined as a maintenance area. Where insufficient data exist to determine an area's attainment status, an area is designated unclassifiable (or in attainment). The study area is located in New York City, an area with the following current designations:

- Severe non-attainment for ozone.
- CO maintenance area.
- Partially moderate non-attainment for PM_{10} (New York County).
- Attainment for all other criteria pollutants.

3.17.3 State Implementation Plan

The CAA as amended in 1990 mandates that state agencies adopt State Implementation Plans (SIPs) that target the elimination or reduction of the severity and number of violations of the NAAQS. SIPs set forth policies to expeditiously achieve and maintain attainment of the NAAQS. In the New York Metropolitan area, the standard for ozone continues to be exceeded and the New York State Department of Environmental Conservation (NYSDEC) has developed the SIP to demonstrate the attainment of the ozone standard by the year 2007, and meet the three percent per-annum rate of progress requirement for the years of 2002, 2005 and 2007. For CO, USEPA recently re-designated New York City from non-attainment to attainment. In 1995, a PM_{10} SIP revision for attainment demonstration in New York County was developed by NYSDEC and submitted to USEPA.

3.17.4 Vehicular Pollutants

Primary automobile-related air pollutants are CO and O3 precursors (NOx and volatile organic compounds [VOCs]). Lead emissions from automobiles are not significant and have declined in recent years through the increased use of unleaded gasoline. Lead emissions from highway usage have been virtually eliminated as a result of regulations and legislation prohibiting the manufacture, sale, or introduction into commerce after 1992 of any engine requiring leaded gasoline. Potential emissions of sulfur dioxide (SO_2) from most mobile sources such as gasoline-power taxis are not significant compared to non-mobile emission

sources or diesel trucks, and such an impact analysis is not warranted for the proposed additional taxi operations.

Particulate matter (PM) including PM_{10} and $PM_{2.5}$ is emitted into the atmosphere from a variety of sources: industrial facilities, power plants, construction activity, and some smaller non-mobile sources, as well as diesel trucks. Unlike diesel-powered vehicles, gasoline-powered vehicles do not produce any significant quantities of particulate emissions. Since the proposed additional taxis will be ~~all~~ gasoline-powered and result in minimal particulate emissions, the potential PM impact from the proposed action is not considered significant. However, to address public concern about particulate matter, this EIS includes a discussion in Subchapter 3.17.6 of how the proposed action relates to overall PM_{10} concentrations in New York City and includes a $PM_{2.5}$ screening analysis for the proposed action.

Ozone is formed through a series of reactions primarily caused by a mix of NOx and volatile organic compounds (VOCs) (ozone precursors) that take place in the atmosphere in the presence of sunlight. Because the reactions are slow and occur as the pollutants diffuse downwind, elevated ozone levels are often found many miles from the sources of the precursor pollutants, which include mobile and stationary sources. The effects of NOx and VOC emissions on ozone levels from mobile sources are therefore, typically examined on a regional basis, together with the emissions of these pollutants from stationary sources.

New York City lies within the ozone region geographically defined as the entire New York-New Jersey-Long Island metropolitan areas. Again, given such a large area, the regional ozone levels are not normally assessed on a project basis (as described in the CEQR guideline (NYCDEP, 2001). The New York Metropolitan Transportation Council (NYMTC) is the designated metropolitan planning organization for this region that addresses transportation-related regional ozone concerns. NYMTC has developed a regional model to predict mobile source emissions that contribute to ozone formation for purposes of demonstrating regional improvements to ozone conditions. Based on this regional model, increases in taxi trips have been forecasted on an annual basis regardless of whether there would be an increase or a decrease in the number of taxi licenses issued. Such increases would occur as a result of future regional growth driven by changes in economic demand, land use development, roadway capacity, etc. Therefore, the proposed increase in demand-driven taxi trips has already been considered in the regional forecast model developed by NYMTC to address ozone concerns.

3.17.5 Conservative Ozone Precursor Emission Estimates

As summarized above, in general ozone levels cannot be assessed on a project basis but at the regional level. To assess regional impacts, the NYMTC regional model was used to account for the taxi growth on an annual basis. The issuance of additional 900 medallions would serve part of the taxi demand, but is too small an increase to result in any significant regional ozone concerns. Furthermore, the new medallions would result in a reduction of trips by overtime taxi, illegal cabs, as well as personal vehicle use that would offset the overall regional emissions from the proposed action.

However, in order to further quantify potential ozone-related emissions associated with the vehicle miles traveled (VMT) from proposed new medallions, the emission levels of ozone precursors were conservatively estimated by assuming that the VMT from the proposed action would be 100 percent new and are not part of regional growth nor reflect a reduction of existing trips from other vehicles and taxis as described above.

Based on an average of 63,400 annual VMT calculated for each city taxi (*NYC Taxicab Fact Book*, Schaller Consulting, September 2003), the 900 additional taxis would likely result in a total of 57,060,000 annual VMT. Based on average street and avenue speeds collected by the New York City Police Department, Traffic Control Division (*Spring 2001 Midtown Speed Survey*, NYPD) and average expressway speed data used by NYMTC, average taxi speed was assumed to be 14 miles per hour,.

The emissions factor model, Mobile5b, with the taxi input file developed by NYCDEP (the same model used for CO impact analysis; see Chapter 3.17.8) was used to estimate the ozone precursor (i.e., NOX and VOC) emission factors for each taxi. The emission factors were predicted to be 0.23 grams per mile (g/mi) for NOx and 0.15 g/mi for VOC. Therefore, total annual emissions from the 900 additional taxis within the entire city area would be approximately 14.5 tons per year (tpy) for NOx and 9.4 tpy for VOC.

While the proposed action is not a federal action, the Clean Air Act general conformity rule offers an ozone de minimis criterion that can be evaluated in the context of the proposed action. The general conformity rule requires that a formal conformity determination is required when the annual net total emissions from a federal action, occurring in a nonattainment area, equal or exceed an annual de minimis level. For an ozone severe nonattainment area such as where the proposed action would occur, conformity rules establish de minimis emission levels of 25 tpy for NOx or VOC. As defined by the general conformity rule, if the emissions do not exceed the de minimis level, the federal action has minimal air quality impact and therefore the action is determined to conform for the pollutant under study and no further analysis is necessary. Conversely, if the total annual emissions of a pollutant are above the de minimis level, a formal general conformity determination is applicable for that pollutant in order to determine air quality impact significance.

Since the levels of ozone precursors with the potential to emit under the proposed action were estimated to be below the 25 tpy-de minimis level, the proposed action would not result in a significant ozone impact on a regional basis. It should be further noted that the predicted levels are conservatively higher because they do not account for any non-new VMT such as:

- VMT related to a normal regional growth from the service of the 900 additional taxis.
- VMT reduction from other vehicles (illegal cabs and street hails by for-hire vehicles in the central business district) due to the introduction of the 900 new taxis.

The proposed action would not significantly increase regional ozone levels. Potential increased vehicular trips associated with the issuance of new medallions in New York City have been incorporated into the NYMTC model as part of the overall regional growth factors used in the prediction of regional ozone levels. Moreover, it is expected that some level of emission offset would occur as a result of the presence and availability of new taxis (i.e., overtime taxis, illegal cabs, rentals and personal vehicle use would be reduced). Consequently, the net increase in regional ozone from the proposed action would not be significant, and would result in a negligible regional impact.

~~Consequently, addressing the regional ozone concerns for the proposed action in this EIS is neither appropriate nor necessary. Therefore, the potential air quality impact from the proposed action was analyzed for vehicular and CO emissions only in this EIS.~~

3.17.6 Particulate Matter

Typically, particulate matter would not be of potential concern for mobile sources unless the proposed project would induce substantial number of truck or bus traffic and a detailed PM impact modeling analysis is unlikely to be necessary. Since the proposed additional taxis are all light-duty gasoline-powered vehicles (unlike trucks or buses), they are not of concern for PM. However, to address the general public concern about particulate matter, a discussion of how the proposed action relates to PM_{10} concentrations in New York City follows below and a $PM_{2.5}$ screening was conducted for this EIS.

PM_{10}

The PM_{10} ambient concentration levels monitored within the New York City (NYC) area indicate that no exceedances have occurred over the last few years. The highest recorded ambient background concentration levels (NYCDEP, April 10, 2003) are as follows:

- Annual average level recorded in Manhattan: 34 ug/m3 (the standard is 50 ug/m3).
- 24-hour average level recorded in Brooklyn: 91 ug/m3 (the standard is 150 ug/m3).

Based on the traffic analysis (see Appendix A), the intersection with the highest number of projected new taxi trips (the intersection of Broadway, Sixth Avenue, and 34th Street) was assessed. The project induced taxi trips are 120 trips per peak hour and 94 trips per hour for the 24-hour average period, respectively. This small percent increase of gasoline-powered taxi trips would not result in any potential exceedances of PM_{10} NAAQS and no potential significant PM_{10} impacts are expected to occur under the proposed action.

Furthermore, PM_{10} emission factors were estimated using the USEPA's Part5 emission factor model for new taxis along an urban paved roadway with 0.1 silt load factor. Six thousand lbs (6000) were assumed in the modeling for an average fleet vehicle that

includes taxis. The emission factors were predicted to be 1.17 grams per mile (g/mi) for PM_{10} including paved roadway dust. Therefore, for a total of 57,060,000 annual VMT resulting from the 900 additional taxis within the entire city area, total PM_{10} emissions would be approximately 73.5 tpy.

Similar to the ozone precursor emissions discussed in Subchapter 3.17.5, a comparison of the Clean Air Act general conformity de minimis level was conducted since the New York County area is in a PM_{10} moderate nonattainment area. For a PM_{10} moderate nonattainment area, the general conformity rule has established de minimis emission levels of 100 tpy. As defined by the general conformity rule, if the emissions do not exceed the de minimis level, the federal action has minimal air quality impact and therefore the action is determined to conform for the pollutant under study and no further analysis is necessary. Since the level of PM_{10} with the potential to emit under the proposed action were estimated to be below the 100 tpy-de minimis level, the proposed action would not result in a significant PM_{10} impact. It should be further noted that the predicted levels are conservatively higher because the annual VMT level used for emission estimates includes 1) VMT within other boroughs where they are attainment for PM_{10} and 2) non-new VMT such as:

- VMT related to a normal regional growth from the service of the 900 additional taxis.
- VMT reduction from other vehicles (illegal cabs and street hails by for-hire vehicles in the central business district) due to the introduction of the 900 new taxis.

$PM_{2.5}$

A $PM_{2.5}$ screening criterion based on the number of project-induced truck trips has been developed by NYCDEP for screening impact assessment purposes. According to this criterion, no detailed impact analysis is necessary if the number of project-induced truck trips is equal to or less than 21.

As discussed previously, the proposed action would not result in any new truck trips; however, a comparison of $PM_{2.5}$ emissions between a taxi and a truck was prepared in order to correlate emissions from a taxi to a truck. Therefore the truck-trip based screening criterion can be used for taxi screening purposes.

$PM_{2.5}$ emission factors were estimated using the USEPA's Part5 emission factor model for vehicles along an urban roadway (see Table 3.17-3). There are three different classes of heavy-duty diesel vehicles (HDDV) based on the Part5 emission model. They are as follows:

- 2B Heavy-duty diesel vehicle (2BHDDV).
- Medium heavy-duty diesel vehicle (MHDDV).
- Heavy heavy-duty diesel vehicle (HHDDV).

The predicted emission factors (Table 3.17-3) indicate that an on-road HDDV would produce more $PM_{2.5}$ emissions than an LDGV such as a taxi. The ratio of the total $PM_{2.5}$ emissions for LDGV and the three different types of HDDV ranges from 6 to 18 times. For screening purposes, the lowest emission ratio of 6 (2BHDDV vs LDGV) was applied and the potential $PM_{2.5}$ emissions from six taxis can be conservatively assumed to be equivalent to those from one truck.

Based on this ratio, , the emissions of the 120 new taxi trips is equivalent to the emissions of 20 heavy duty diesel trucks. The resulting truck trips equivalents are below the 21-truck-trip screening criterion for $PM_{2.5}$; consequently, no detailed $PM_{2.5}$ analysis is required, and no potential significant $PM_{2.5}$ impacts are expected to occur under the proposed action.

Table 3.17-3

Part5-predicted $PM_{2.5}$ Emission Factors

Type	$PM_{2.5}$ EF (g/mi)			
	LDGV (Taxi)	2BHDDV	MHDDV	HHDDV
Total PM without Fugitive Dust	0.027	0.173	0.378	0.474

3.17.7 CEQR Criteria for CO

Exceeding the NAAQS constitutes a significant air quality impact. Additionally, New York City has developed de minimis criteria to assess the significance of CO impacts based on the CO increment that would result from a project. A significant CO increase is defined as:

- An increase of 0.5 ppm or more in the maximum 8-hour average concentration at a location where the predicted No Build 8-hour concentration is equal to or between 8 and 9 ppm,or
- An increase of more than half the difference between No Build 8-hour concentrations and the 8-hour standard, when No Build concentrations are below 8 ppm.

3.17.8 CO Impact Analysis Methodology

Air quality impacts of CO, the predominant pollutant emitted by motor vehicles, are typically evaluated through a microscale analysis of traffic-related emission impacts at specific intersections. The microscale analysis of CO concentrations for this analysis was performed based on procedures outlined in two USEPA documents:

- A Modeling Methodology for Predicting Pollutant Concentrations Near Roadway Intersections (September 1995).
- Mobile5b User's Guide (1997).

Dispersion Modeling

The CO microscale analysis employs a modeling approach that includes a series of conservative assumptions relating to meteorological conditions, traffic, and background pollutant concentration levels. This modeling typically results in a conservative prediction of CO concentrations at the analysis locations. The dispersion model, CAL3QHC, predicts the dispersion of CO emissions from idling and moving vehicles. The queuing algorithm includes site-specific traffic parameters, such as signal timing and delay calculations, saturation flow rate, vehicle arrival type, and signal actuation characteristics to predict the number of idling vehicles. The worst-case meteorological conditions (using a wind speed of one meter per second and stability class of D) were applied to the CAL3QHC model. The model was further used to compute CO concentrations at each of 360 wind angles to determine the worst-case hourly CO concentration levels for both AM and PM peak traffic periods for the year 2006. The worst-case 8-hour concentrations were determined by applying a persistence factor of 0.77 (NYCDEP, March 10, 1998) to the maximum predicted hourly CO levels. The persistence factor represents a combination of the variability of both traffic and meteorological conditions over any 8-hour period.

Emissions Modeling

To predict ambient CO concentrations generated by vehicular traffic at a specific intersection, emissions from vehicle exhaust must be estimated. The USEPA Mobile5b emission factor model was used to estimate CO emissions for six vehicle classes (derived from the 9-way vehicle mix) collected from field survey at each analysis intersection:

- Light-duty gasoline-powered automobiles.
- Light-duty gasoline-powered taxis.
- Light-duty gasoline-powered trucks (include SUVs).
- Heavy-duty gasoline-powered vehicles (include 15 percent of Bus).
- Heavy-duty diesel powered vehicles (include 85 percent of Bus).
- Motorcycles.

Given the generally high percentage of taxis in midtown traffic, Mobile5b model was used to predict emission factors for taxi and other vehicle classes separately. NYSDEC-provided input

parameters applicable to AM and PM periods in New York County arterial roadways were used for predicting emission factors for all vehicles, excluding taxis. Taxi emission factors were predicted using NYCDEP-provided input parameters and guidance (September 27, 2000). The composite and weighted emission factors were further derived based on respective emission factors and mix percentages of taxis and other vehicles. The speeds used in the emissions modeling for each approach movement at each modeled intersection were obtained from field surveys. Engine cold and hot start percentage and ambient temperatures for AM and PM periods for New York County were provided by NYSDEC (Watz, September 9 and 24, 2003).

8-hour Background CO Levels

Total ambient 8-hour average CO concentrations near intersections consist of two components – local source contributions (i.e., vehicular emissions near intersections discussed above) and background contributions from other stationary or natural sources in the project vicinity. Background 8-hour CO levels for this analysis were obtained from the NYCDEP (March 10, 1998). The background CO level is 2.9 ppm for the midtown areas in New York County for the year 2006.

Modeled Intersections and Receptor Locations

A total of five receptor sites were selected for CO impact analyses as presented in Chapter 3.15 (Traffic and Parking) and the scoping document for the EIS (Urbitran, May 7, 2003):

- Site 1: Broadway/Columbus Avenue/65th Street.
- Site 2: Third Avenue/57th Street.
- Site 3: Fifth Avenue/ 42nd Street.
- Site 4: Broadway/Sixth Avenue/34th Street.
- Site 5: 42nd Street/Eighth Avenue.

Sites 2, 4, and 5 were also selected by NYSDEC and NYCDEP for the CO SIP attainment demonstration. These sites were chosen because the greatest potential for air quality impacts and maximum changes in CO concentrations under the proposed condition would be expected near these intersections. Receptors were modeled at sidewalk locations along each intersection for the microscale analysis.

3.17.9 No Action Condition

Predicted 8-hour CO concentration levels under the No Action Alternative at the study intersections are shown in the "No Action Condition" column of Table 3.17-4. The predicted results show no violations of the 8-hour CO standard of 9 ppm for any of the modeled intersections.

3.17.10 Proposed Conditions

Predicted 8-hour CO concentration levels following implementation of the proposed action at the study intersections are shown in the "Proposed Condition" column of Table 3.17-4. The predicted results indicate that the 8-hour CO levels would be the same or slightly higher than under the No Action Condition. These results show no violations of either the 8-hour CO standard of 9 ppm or the CEQR de minimis criteria for any of the modeled intersections after the final 300 of the 900 total medallions are sold in 2006. Therefore, no significant air quality impacts are anticipated from the sale of 300 medallions in the years 2004, 2005 and 2006. Therefore, the proposed action would result in no significant air quality impact.

Table 3.17-4
Modeled Total 8-hour CO Levels

Intersection	Eight-Hour Concentration (ppm)	
	No Action Condition	Proposed Condition
Broadway/ Columbus Avenue/ 65th Street	6.8	6.8
Third Avenue/ 57th Street	6.9	6.9
Fifth Avenue/ 42nd Street	5.4	5.5
Broadway/ Sixth Avenue/ 34th Street	6.8	6.8
42nd Street/ Eighth Avenue	6.6	6.6
Note: The total concentrations shown include the 2.9-ppm background level. The 8-hour CO NAAQS is 9 ppm.		

3.18 NOISE

CEQR defines noise simply as unwanted sound. The *CEQR Technical Manual* recommends an analysis of three principal types of noise sources: mobile sources, stationary sources and construction sources. The noise levels associated with the environmental noise assessment are not simply hazardous noise levels that cause hearing loss, but significant noise levels below the hazardous level that have a potential detrimental impact on quality of life in New York City. The density of New York City makes noise assessment vital because of the high potential for noise sources to disrupt sleep, interrupt activities requiring concentration and cause stress-related illnesses.

According to the *CEQR Technical Manual*, a noise-impact screening considers whether the action generates any mobile or stationary sources of noise or will be located in areas with high ambient noise levels. These areas would include highly trafficked thoroughfares, airports, railroads or other loud activities. The *CEQR Technical Manual* considers an action that doubles (in the future action condition compared to the future no action condition) the number of PCEs (Passenger Car Equivalents) along a studied route to be a significantly adverse impact.

The issuance for sale of 900 medallions ~~that is part of the proposed action,~~ will increase the number of vehicles on New York City streets and taxicabs generally travel along the City's most heavily trafficked thoroughfares, particularly congested avenues and cross-streets in Midtown Manhattan. However, the addition of 900 taxicab medallions is not anticipated to double the existing traffic volume (measured in Passenger Car Equivalents (PCE)) along any of the studied intersection. The 900 additional taxicabs represent an approximate total increase of only seven (7) percent over the current number of licensed taxis in New York City. Traffic volumes at the studied intersection under the future no action scenario (see Section 3.15 Traffic and Parking) are assumed to have a growth rate of 0.75 percent per year. Under the future action scenario, the number of taxis passing through the study intersections is increased by seven (7) percent. In order for the proposed action to have a significant impact it would have to double the number of all PCEs at a study intersection, not just the taxicabs. The proposed action would increase only the number of taxicabs at the study intersections, and the increase in taxis would only be seven (7) percent. Since the action would fall far short of doubling the PCEs, the action would not have a significant noise impact.

3.19 CONSTRUCTION IMPACTS

Although the construction of new buildings or structures is temporary in nature, it can have disruptive and noticeable effects. The determination of whether these effects are significant, and if mitigating steps are required, is generally based on the duration and magnitude of the impact. Most projects consider the impacts that are related to traffic, air quality and noise. Assessments of other technical areas can also be appropriate for particular actions.

The *CEQR Technical Manual* calls for an analysis of construction impacts for any action that involves construction or that would induce construction. The level of detail necessary for the analysis is based on the duration of the potential impact.

The proposed action involves changes to service that would result in increased vehicle volumes. The 900 additional taxicab medallions proposed as part of the action would either store vehicles at home, or in garages or lots operated by corporate leaseholders. The action does not involve construction and no induced construction is expected as a result of the proposed action. Thus, the action is not anticipated to cause significant adverse construction impacts.

3.20 PUBLIC HEALTH

Public health involves the activities a society undertakes to create and maintain conditions in which people can be healthy. The *CEQR Technical Manual* recommends an assessment of potential impacts on the public health Citywide or on the health of a community or certain group of individuals affected by the proposed action. For a large city, many public health concerns are closely related to air quality, hazardous materials, construction and natural resources.

The *CEQR Technical Manual* states that when deciding if an assessment is appropriate, special consideration should be give to urban public health concerns. A health assessment may be warranted if an action increases vehicular traffic or emissions; if the action increases exposure to heavy metals or other contaminants or there is the presence of contamination from historic spills or releases of substances that might have affected or affect groundwater; if the action involves solid-waste management practices that could attract vermin, or would have potentially significant adverse impacts to sensitive receptors; or if the action requires an assessment if it involves vapor infiltration to buildings or soil, exceeds accepted federal, state, or local standards, or if the action involves an activity that results in a significant health concern (i.e. the Williamsburg Bridge Lead Removal Project).

As part of the proposed action, 900 medallions will be sold over a three-year-period, increasing the number of vehicles on New York City streets. The increase in vehicular traffic, however, is not expected to result in significant adverse air quality impacts (see section 3.17 Air Quality). The types of engines and fuel used by taxicabs engines are not considered major contributors to particulate matter (PM_{10} and $PM_{2.5}$) and carbon monoxide levels in the future with the action are still expected to be in conformance with the City's attainment status. Thus, no significant adverse public health impacts are anticipated as a result of the proposed action.

4.0 ALTERNATIVES TO THE PROPOSED ACTION

CEQR requires that alternatives to ~~the~~ proposed action be identified and evaluated when preparing an environmental impact statement. Alternatives considered should reduce or eliminate impacts of the proposed action while substantively meeting the goals of the proposed action. The purpose of presenting alternatives is to demonstrate to decision makers possible options to the proposed action and to set a framework for comparing potential impacts and project objectives.

4.1 NO ACTION ALTERNATIVE

The first alternative to be considered for any proposed action is the no action alternative. The no action alternative demonstrates environmental conditions if the proposed action were not implemented. The purpose of the no action alternative is to provide a baseline for the evaluation of impacts associated with action.

The proposed action is the addition of up to 900 taxicab medallions in New York City. The first 300 medallions would be sold in fiscal year ending 2004, 300 more sold in 2004-05, and the final 300 medallions sold in 2005-05.

Between 1992 and 2002, annual taxi ridership in New York City increased from 218 million annual passengers to 240 million annual passengers. While ridership during this time period increased by 22 million annual passengers, the total number of licensed taxicabs in the City increased by three percent with the issuance of 400 total medallions in years 1996 and 1997. Other measures of taxi service levels confirm that demand for taxi service has grown and the current supply of service is at times insufficient. Service availability, the measure of miles taxis spend cruising for fares, over a similar time period dropped from 310 million total miles in 1992 to 271 million miles in 1999. It is assumed that since taxi ridership has remained generally constant since 1999, service availability levels in 1999 are a good indicator of present taxi service availability levels.

The increase in taxi ridership and decrease in service availability of New York City taxicabs has made finding an available cab in Manhattan, particularly during rush hour, a sometimes arduous task. Surveys of taxi occupancy levels completed at Midtown locations during the morning and afternoon rush hours have confirmed that there are only a limited number of available taxicabs available to pick-up passengers.

If the action is not implemented it is assumed that, at the very least, the high ridership and low service availability experienced currently in the City would remain constant. This would mean that the difficulty of securing an available taxicab, particularly during rush hour and in inclement weather, would continue for taxi customers. It is highly probable that the trend of increased taxi ridership that has occurred over the past 10 years would continue in the future, causing service availability and occupancy levels to further decrease. The result would be that potential passengers would be trying to obtain cabs from a pool of potential taxicabs that has remained static making hailing a taxicab, especially during rush hour in Midtown Manhattan, even more difficult than it already has become.

4.2 PROPOSED ALTERNATIVE ACTION

The proposed action calls for the issuance of 900 additional taxicab medallions in New York City. As part of the proposed action, the first 300 medallions would be sold in fiscal year ending June 30, 2004, 300 more sold in 2004-05, and the final 300 medallions sold in 2005-06. The proposed action is intended to raise the number of licensed taxis in New York to meet increased ridership levels and rising demand.

As an alternative to the proposed action, the TLC would limit the sale to 300 medallions ~~in~~ sold in 2004, or limit the sale to 600 medallions, with 300 sold in 2004 and 300 medallions sold in 2005.

4.2.1 Land Use, Zoning And Public Policy

No difference is expected between the proposed action and the proposed alternative action with regard to land use, zoning and public policy impacts are anticipated from the proposed alternative action. The proposed alternative action is unlikely to affect land use, zoning or public policy in New York City.

4.2.2 Socioeconomic Conditions

The results of socioeconomic simulation of the proposed alternative action suggest that the proposed increase in medallions would have a significant adverse impact on the taxicab industry in New York City. With no medallion sale, medallion values are expected to rise from a value of $239,000 in 2003, to $242,000 by the year 2004 and $248,000 by the year 2005. In contrast, if the medallion sale is limited to 300 sold in

2004, the value of medallions would decrease to $232,000. If an additional 300 are sold in 2005, medallion values would drop to $229,000.

However, the TLC is currently reviewing petitions from industry groups to increase taxicab fares. If a fare increase were approved, it would occur within the period wherein the proposed action would be completed. Raising the fare of taxicabs alters the dynamic between taxi demand and supply and if it occurred during the same time as the medallion sale, it would likely serve to mitigate the potential adverse socioeconomic impact of the proposed medallion sale.

With regard to the proposed alternative action, CNG vehicles have the potential to increase operator costs due to the different operational and acquisition expenses of CNG vehicles. However, no significant socioeconomic impacts are likely to occur, as the taxicabs fueled by CNG would be permitted to remain in service for an additional 24 months, thereby reducing vehicle acquisition cost to the owner. In addition, there are financial incentives for owners who purchase CNG vehicles, which include grants and reimbursements to offset the additional cost of the vehicle.

4.2.3 Community Facilities and Services

No difference is expected between the proposed action and the proposed alternative action with regard to community facilities and services. The proposed alternative action would not add new residential units that would increase local demand for community facilities and services and is not likely to displace any community facilities or services.

4.2.4 Open Space

No difference between the proposed alternative action and the proposed action is expected with regard to open space. The proposed alternative action would not displace, damage or alter existing open space resources, nor does the alternative action limit or affect the public's use of any open space resource in New York City.

4.2.5 Shadows

No significant impacts from shadows will occur as a result of the proposed alternative action. The proposed alternative action would not result in any new construction that could cast shadows on public open spaces, historic resources, or visual resources.

4.2.6 Historic Resources

The proposed alternative action is not expected to involve any construction activity that would impair existing historic or architectural structures or result in an in-ground disturbance that could affect archaeological resources. Therefore, the proposed alternative action is not anticipated to have significant adverse impacts on historic resources in New York City.

4.2.7 Urban Design/Visual Resources

The proposed alternative action is not expected to change the assessment of potential Urban Design/Visual Resources impacts completed for the proposed action. Therefore, no significant adverse urban design or visual resources impacts are expected as a result of the proposed alternative action.

4.2.8 Neighborhood Character

The proposed alternative action is not expected to have a significant impact on any of the areas that comprise neighborhood character: land use, urban design, visual and historic resources, socioeconomics, traffic and noise. Thus, the proposed alternative action is not anticipated to have significant adverse neighborhood character impacts.

4.2.9 Natural Resources

No difference is expected between the proposed action and the proposed alternative action with regard to natural resources. The areas of New York City in which taxicab garages are located have been extensively developed, with few, if any, properties returning to their natural state.

4.2.10 Hazardous Materials

The proposed alternative action would not result in elevated levels of hazardous materials, increased pathways to exposures of hazardous materials or new activities using hazardous materials. Therefore, no significant hazardous materials impacts are anticipated as a result of the proposed alternative action.

4.2.11 Waterfront Revitalization Program

The proposed alternative action is unlikely to induce the development of additional taxi garages that could potentially be located within New York City's coastal zone boundaries. Hence, no significant impacts are anticipated from the proposed alternative action and no assessment of consistency with the City's LWRP is necessary.

4.2.12 Infrastructure

The proposed alternative action will not substantially impact the city's water supply, wastewater treatment or stormwater management systems. No significant infrastructure impacts are expected as a result of the proposed alternative action.

4.2.13 Solid Waste and Sanitation

No difference between the proposed action and the proposed alternative action is expected with regard to potential Solid Waste and Sanitation impacts.

4.2.14 Energy

No difference between the proposed action and the proposed alternative action is expected with regard to potential energy impacts.

4.2.15 Traffic and Parking

The proposed alternative action is not expected to change the traffic parking analysis and proposed mitigation completed for the proposed action (see Section 3.15 Traffic and Parking).

4.2.16 Transit and Pedestrians

No difference is expected between the proposed alternative action and the proposed action with regard to transit and pedestrians. According to the *CEQR Technical Manual*, if a proposed action is projected to result in fewer than 200 peak hour transit trips a transit assessment is generally not warranted. And, if an action would result in residential or office projects that are less than 50 percent of the levels identified in Table 3O-1 a detailed pedestrian assessment is usually not required. Neither of these thresholds would be exceeded

as part of the proposed alternative action and no significant adverse transit or pedestrian impacts are likely to occur.

4.2.17 Air Quality

The proposed alternative action is not expected to have significant adverse air quality impacts. Under the proposed alternative action the TLC would limit the sale to 300 medallions in ~~sold in~~ 2004, or limit the sale to 600 medallions, with 300 sold in 2004 and 300 medallions sold in 2006. Since air quality will not be significantly affected under the proposed action after the sale of 900 medallions, it is not anticipated that the sale of fewer medallions would impact air quality.

4.2.18 Noise

Under the proposed action scenario, it is unlikely that PCEs would double (see ~~Noise~~ Section 3.18 Noise). The proposed alternative action would introduce fewer vehicles into studied intersections than under the proposed action. Therefore, under the proposed alternative action, it is not anticipated that PCEs would double in studied intersections.

4.2.19 Construction Impacts

The proposed alternative action does not involve construction and no induced construction is expected as a result of the proposed alternative action. Hence, the proposed alternative action is not anticipated to cause significant adverse construction impacts.

4.2.20 Public Health

No difference is expected between the proposed alternative action and the proposed action with regard to public health. The increase in vehicular traffic, related to the proposed alternative action, is not expected to result in significant adverse air quality impacts.

5.0 UNAVOIDABLE ADVERSE IMPACTS

Unavoidable adverse impacts are impacts related to an action that have no reasonable or practical mitigation measure to eliminate the impact. These impacts have no reasonable alternatives to the proposed action that would not cause other significant adverse impacts. As part of the proposed action, 900 taxicab medallions would be added over a three-year period in New York City. The additional vehicles on New York City streets would potentially contribute to the wear and tear of the New York City street system. There is no practical mitigation for the additional taxicabs that would potentially contribute to the deterioration of the City's street system, as it would be impossible to identify the specific street wear and tear that occurred as a result of the 900 additional taxicabs. In addition, the addition of 900 taxicabs is not likely to significantly affect the condition of New York City's street system and any marginal wear and tear would be addressed as part of the City's program to repair and maintain the street network.

6.0 GROWTH-INDUCING ASPECTS

Growth-inducing aspects of a proposed action are the "secondary" impacts of a proposed action that could trigger further development. As part of the proposed action New York City would add 900 taxicab medallions in over a three-year period. The potential result of this would be improved taxi service and availability of taxicabs in the City. This would help to improve mobility, making the City more attractive to groups such as business travelers, tourist and conventioneers that are essential contributors to New York's economic growth. In addition, increasing the number of taxicab medallions would create new job opportunities and contribute to the businesses that provide services to the taxicab industry (e.g. automotive repair shops, storage facilities, etc.).

7.0 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Irreversible and irretrievable commitment of resources are environmental resources lost, both in the immediate future and in the long term, as a result of ~~a~~ the proposed action. The 900 additional taxicabs represent a potential commitment of material and energy resources to construct the new vehicles and fuel and maintenance resources required over the lifetime of the vehicle.

8.0 RESPONSE TO COMMENTS MADE ON THE DEIS

A key element of the environmental review process is the public review and comments on the Draft Environmental Impact Statement (DEIS). Based in part on these comments a Final Environmental Impact Statement (FEIS) is prepared that serves to inform the decision-makers fully of the environmental impacts of the proposed action.

This chapter makes note of and responds to oral and written comments received by the New York City Taxi and Limousine Commission (TLC), and is organized into two sections. Section 8.1 lists the names of all persons and/or groups who commented on the DEIS at the four public hearings and all the persons and/or groups that submitted written comments on the DEIS to TLC through January 23, 2004. The four public hearing sessions for the Impact Study of the Issuance of Additional Taxicab Medallions DEIS were held at the following dates and times:

- Wednesday, January 7, 2004 at 3 P.M.
- Wednesday, January 7, 2004 at 6 P.M.
- Monday, January 12, 2004 at 3 P.M.
- Monday, January 12, 2004 at 6 P.M.

Section 8.2 responds to the comments and is organized by general subject matter. Comments pertaining to the same general subject are summarized into a single collected comment with numbered reference to the person and/or group (indexed in Section 8.1) who made the comment. Written comments on the DEIS appear in Appendix C.

8.1 Persons And/Or Groups That Commented On DEIS

Speakers providing comments at the public hearing held on Wednesday, January 7, 2004 at 3 P.M.:

1. Alan Decker, Attorney (Practicing in the taxicab industry)
2. Yihama Woldemariam, Taxi Driver
3. Aaron Schecter, Private Citizen
4. Saba Waheed, Urban Justice Center
5. Bernardo Celerino, Owner-Driver
6. Jack Casmiro, New York Federation of Taxi Drivers (representing President Fernando Matteo)
7. Jeff Lundell, Taxi Driver
8. Ron Sherman, Metropolitan Transportation Board of Trade
9. Edith Prentiss, Manhattan BoroughWide InterAgency Council on Aging
10. Elaine Schechter, Private Citizen
11. Mr. Sha, Private Citizen
12. John McDonnah, Taxi Driver

13. George Haikalis, Institute for Rational Urban Mobility
14. Marvin Wasserman, 504 Democratic Club (Speaking for the Disabled Community)
15. Osman Chowdry, Taxi Driver

Speakers providing comments at the public hearing held on Wednesday, January 7, 2004 at 6 P.M.:

16. William Lindauer, Taxi Driver
17. Kevin Fitzpatrick, Taxi Driver
18. Steve Seltzer, Taxi Driver
19. Michael Higgins, Publisher of Taxi Talk Newspaper

Speakers providing comments at the public hearing held on Monday, January 12, 2004 at 3 P.M.:

20. Charles Komanoff, New York Taxi Workers Alliance
21. Antania Bryson, Urban Environmental Law Center (New York League of Conservation Voters, American Lung Assoc., Environmental Defense, Natural Resources Defense Council and INFORM)
22. Nijolaos Kostas, Taxi Driver`
23. Bhanari Desai, Taxi Worker Alliance
24. Trinket Lewis, Private Citizen, (Graduate Student, New School University)
25. M. Harris, Private Citizen, (Speaking for the Disabled Community)
26. Darshan Kaushik, Taxi Driver
27. Neal Scott, Transportation Alternatives
28. Mamnun Ul Haq, Taxi Driver
29. Patrick Centolanzi, Private Citizen
30. William Lindauer, Taxi Driver
31. Paul Gilman, Flushing Greens, New York City Taxi Alliance, Driver
32. Mohamed Ahmed, Taxi Driver
33. Kevin Fitzpatrick, Taxi Driver

Speakers providing comments at the public hearing held on Monday, January 12, 2004 at 6 P.M.:

34. David Yassky, Council Member
35. Lloyd Taylor, New York Livery Business - Owners and Drivers Association
36. Margarita Lopez, City Council Member
37. Frieda Zames, Disabled in Action
38. Miriam Wolg, Taxi Driver
39. Jay Eddy, Taxi Driver
40. Jean Ryan, Disabled in Action
41. David Pollack, Committee for Taxi Safety
42. Jamie Trejos, Taxi Driver

43. Andrew Kurzweil, TLC Disability Advisory Board
44. Minister A. Jordan, National Action Network
45. Robert Schoenfeld, 504 Democratic Committee
46. Harry Weider, 504 Democratic Committee
47. Anna Lewis, 504 Democratic Committee
48. JoAnne Simon, 504 Democratic Committee
49. Pamela Bates, 504 Democratic Committee
50. Michael J. Schwensburg, 504 Democratic Committee
51. Raphael Puerto, Private Citizen
52. Carr Massi, 504 Democratic Committee
53. Evile Malbranche, Taxi Worker Alliance
54. Bhavari Desai, Taxi Worker Alliance

Written comments received by January 23, 2004:

55. Patrick M. Centolanzi, Private Citizen
56. Saba Waheed, Urban Justice Center (Provided written comments at public hearing)
57. Charles Komanoff, New York Taxi Workers Alliance, (Provided written comments at public hearing)
58. Jean Ryan, Disabled in Action (Provided written comments at public hearing)
59. Edith Prentiss, Manhattan BoroughWide InterAgency Council on Aging (Provided written comments at public hearing)
60. David Pollack, Committee for Taxi Safety (Provided written comments at public hearing)
61. Vincent Sapone, League of Mutual Taxi Owners, Inc.
62. Brian Ketcham, Community Consulting Services
63. Daniel Robert, Private Citizen (Speaking for the Disabled Community)
64. Antania Bryson, Urban Environmental Law Center (New York League of Conservation Voters, American Lung Assoc., Environmental Defense, Natural Resources Defense Council and INFORM)

8.2 Response to Comments

Purpose And Need Of The Proposed Action

The prime prerequisite for the issuance of additional medallions is that there be a need for additional medallions and a need for the additional taxicabs was not demonstrated by the DEIS… (1) (21) (22) (27) (31) (37) (64)

Trends in demand for taxi service show that the number of taxi fare trips has increased over the past ten years. In 1992, taxicabs carried 218 million annual passengers in New York City. By comparison, taxicabs carried 240 million annual passengers in 2002, a growth of 22 million annual passengers over 10 years. Rising taxicab ridership over the past ten years may have led to a drop in taxicab service availability in the City. Service availability is the measure of miles available cabs expend cruising for passengers. Since taxicab availability peaked in 1992 at 310 million total miles, it has decreased thirteen percent (13%) to 271 million total miles in 1999. This trend was only reversed slightly in 1997 when the last issuance of 400 new taxicab medallions occurred.

The demand for taxis during inclement weather and rush hour will never be satisfied… (1)

The DEIS does not suggest that 900 additional taxicabs would completely satisfy demand for cabs during rush hour and inclement weather. Instead, the DEIS discusses the limited number of cabs available during rush hour and inclement weather as evidence that the demand for cabs is not being met by the current number of medallion taxicabs. While issuing 900 more medallions would not completely satisfy this need, the proposed action is a step toward meeting some of the service needs during these times. Regardless, the purpose of an EIS is not to justify the proposed action; it is instead to disclose all potential significant adverse impacts.

The rough test for the need of additional taxi medallions, which is not addressed in the DEIS, is if a customer has to wait more than five minutes for a cab - at a time other than rush hour or during inclement weather… (1)

The commentor's "five minute rule" is a subjective indicator of service that over–generalizes cab availability in the City. It is difficult to measure demand for cab service in this manner, particularly since cabs can be hailed at so many various locations over a twenty-four hour period and demand for cabs rises and falls at different times and locations throughout the City. For example, one might have to wait more than five minutes for a cab during the post-theater rush (a non-rush hour time), but a few hours later a cab might be hailed rather easily at the same location. A more reliable indicator of taxi demand is one that tracks annual ridership demand trends, allowing annual demand to be comparable to taxi demand of subsequent or previous years. The DEIS

examined yearly taxi trip volumes and annual ridership figures over the past ten years and determined that, in light of the continued upward trend of these two indicators, a need for additional taxicab medallions is prevalent in the City.

The DEIS is incorrect when it states that the number of riders in the City is back to the highest level it has ever been in the City of New York… (2) (22)

According to a report issued by Schaller Consulting in September 2003 titled, The New York City Taxicab Fact Book, 240 million people rode in New York City yellow medallion taxicabs in 2002. Schaller Consulting ridership calculations are based on TLC inspection data. This represents an increase of 10 million passengers from the 230 million annual passengers in taxicabs during 2001. The 240 million taxicab passengers in 2002 are just short of the 241 million high mark of annual passengers set in 1999. While ridership levels briefly fell four (4) percent in 2001 following the events of September 11th , taxi ridership losses were recouped in 2002. Ridership levels for taxicabs have remained at a high level despite the post-boom and post 9/11 slowing economy of New York City.

The DEIS states that in 1999 taxis wasted 271 million miles cruising for passengers. Thirty-five percent (35%) of the time taxis are empty. There must be a more efficient way to utilize the exiting fleet… (21) (64)

The DEIS identifies trends of growing taxi ridership and decreasing taxi service availability as the indicators of a need to improve taxi service in the City. The DEIS assesses the potential for environmental impacts resulting from the proposed action that would add 900 taxicabs available for service in New York by the end of the year 2006. Whether there are other means of improving taxi service in the City is a public policy question that is outside the scope of the DEIS and is not evaluated in the technical assessments of the document.

The 900 additional medallions will not help the riders looking for cabs during rush hours… (15) (21) (22) (24) (25) (27) (28) (32) (64)

The 900 medallions is intended to address an overall need for taxicabs in the City and not just address the need for available taxicabs during rush hour. However, as it is difficult to hail an available cab during rush hour, it is reasonable to assume that increasing the number of available taxicabs during rush hour would improve the chance a passenger has of finding an available taxicab during rush hour.

Thirty-five percent (35%) of the time taxis are cruising for passengers. Nine Hundred more cabs will increase the cruising miles, which means drivers will earn less… (16) (21) (22) (23) (25) (27) (28) (31) (32) (35) (37) (39) (64)

The intent of the proposed action is to provide more taxi service to the general public. The additional taxicabs will absorb some of the recent growth in trip demand and the additional demand created by any continuation of this trend. As discussed in the Socioeconomic Conditions section (Section 3.2) of the DEIS, taxicab drivers in 2003 made an average hourly wage of $13.50. If the proposed medallion sale is not accompanied by a fare increase this hourly wage would be expected to rise to $14.00 per hour by 2007. If, however, this proposed action is accompanied by a fare increase, drivers are expected to see a larger increase in hourly wage rates by 2007. If a fare increase of 23.4 percent or 44.2 percent were implemented during the same period as the medallion sale, driver earnings are expected to rise to an hourly average of $18 and $22 respectively.

Furthermore, thirty-five percent (35%) of the time taxicabs are not in revenue service. This includes the total mileage cabs are operated without passengers, not just the time spent by drivers cruising for fares. This non-revenue time also encompasses time spent by drivers for personal use, such as, going to inspections, stopping at gas stations and driving to repair shops.

Traffic and Parking

The addition of 900 more cars will reduce the ability of vehicles to move around the city/Make traffic worse/Increase the number of cabs violating traffic laws (2) (9) (13) (16) (17) (20) (21) (22) (23) (25) (30) (31) (32) (57) (62) (64)

The analysis of projected traffic conditions show that the significant traffic impacts, as a result of the proposed sale of 900 medallions over the next three years, can be mitigated by the reallocation of signal timing at certain intersections, and in one case by the re-stripping of traffic lanes. To identify potential significant traffic impacts of the proposed action, the analysis used criteria set forth in section 410 of the CEQR Technical Manual.

The parking section of the DEIS is flawed when it claims there will be no significant impacts, the additional cabs will make it harder to park cabs during break periods etc. … (37) (38)

The additional taxicab medallions represent a seven (7) percent increase over the number of cabs that are licensed in New York City. Most taxicabs are driven over a twenty-four hour period and are not stored between shifts. For the cabs that are parked somewhere when not in use, it is anticipated that the additional cabs would be parked at the cab driver's home or accommodated by additional space available at garages, parking lots and other means of parking already established for taxicabs. Furthermore, the proposed action is not site specific and it is anticipated that the current means that

taxis use for parking during breaks (e.g. metered parking, taxi stands) can accommodate the 900 additional taxicabs.

Adding 900 new medallion cabs to the City's streets will have the same traffic impact as bringing 27,000 additional cars into the heart of the city each day… (20) (57)

This assertion is based on a claim that taxicabs log roughly 30 times as many miles per day or year than the average private automobile. Regardless of whether this figure is true or not, the methodology behind this assertion distorts the effect of the proposed action. Analyzing traffic in this manner looks at traffic over a day and does not capture traffic volumes at the peak hour, where traffic is at its worse. The DEIS followed the traffic study guidelines set forth in New York City's 2001 City Environmental Quality Review (CEQR) Technical Manual. The CEQR Technical Manual guidelines call for the analysis of trips generated by a proposed action in the peak hour. Since the action would add more taxi trips in Manhattan it is appropriate to analyze the effect of the action on traffic volumes at the AM and PM rush hours. In effect, this analysis takes a snapshot of traffic intersections most affected by this action, at the most congested point, and adds the incremental effect on traffic volumes caused by the 900 additional taxicabs.

While it is true that taxicabs travel longer during the day than private automobiles, simply multiplying the additional miles taxicabs travel in a day by the number of additional taxicabs implies that the effect of the proposed action is the same over a twenty-four hour day. This methodology fails to take into account the fluctuations in traffic volumes the City experiences at different time periods of the day.

The presence of 900 additional taxicabs will tack an additional 4%, on average, onto the time required for motor vehicles – not just taxicabs, but also other vehicles – traveling in Manhattan south of 96th Street. Prolonging vehicle trips will cause 18,000,000 hours a year in lost time. The financial impact of this lost time is equivalent to approximately [$500] million per year. (20) (57) (62)

This conclusion does not accurately reflect the impact for two reasons: 1) It counts hours traveled by the new taxicabs as impact and 2) it assumes a direct correlation between total vehicles miles traveled and the average speeds in the City.

Assuming that the overall methodology were correct, the calculation of 18,000,000 hours a year is based on multiplying the average number of people in a vehicle (2 people average per vehicle) by the projected increase in annual travel hours of 9,300,000. However, this analysis characterizes the total increase in additional annual travel hours (9,300,000) caused by the action as trip delay. A closer examination of the methodology used to derive this figure reveals that it includes 60 percent (60%), or 5,700,000 annual travel hours that should be attributed exclusively to the travel time of the 900 additional taxicabs. Only 40 percent (40%) or 3,600,000 annual travel hours of the claimed

9,300,000 annual travel hours are actually attributable to the impact on average speeds in the City caused by the proposed action.

However, the methodology itself is flawed. It assumes that speeds are proportional to vehicle miles traveled. In actual street operations, speeds are affected by many different variables including signal timing, traffic coordination, vehicular mix, parking conditions, loading activities and lane use. As an example, a report by the New York City Department of Transportation (Midtown Auto Speeds – Spring 1997) illustrates how speeds in Midtown have marginally increased and decreased over significant period of time (1980-1996/97). For example, a look at average midtown avenue speeds during the springtime shows that average speeds in the spring of 1983 were 9.8 MPH, in the spring of 1989 average speeds dropped to 8.1 MPH, only to rise back up to 9.3 MPH by 1993. This fluctuation in Midtown speeds occurred vis-à-vis a steady increase in the number of vehicle miles traveled in the City, occurring over the same time. Therefore, it is not safe to assume that increasing vehicle miles traveled in the City will directly relate to a loss in average speeds and, subsequently, it is not safe to conclude that lost time will occur based on this relationship.

Adjusting signal timings is not really going to mitigate increased congestion… (2) (16) (17) (62)

The signal timing mitigations proposed as part of the DEIS are not designed to address the existing traffic congestion problems in New York City. The proposed signal timing mitigations are designed to address the incremental impact the 900 additional medallions would have on the traffic network of the City. The 900 additional vehicles would be spread out across the City and would be driven in shifts throughout a 24-hour day. Therefore, as part of the proposed action, only a few additional vehicles would be added to an intersection at any one time. The incremental impact of the few additional vehicles at a given intersection would then be mitigated by a reallocation of signal timing (and in one instance a re-striping of traffic lanes).

Service will not improve because of the excessive time it takes taxis to get over the bridges into Manhattan, due to congestion and police inspections… (15)

Traffic conditions on the City's bridges and tunnels due to heavy volumes or police inspection are a reality of traffic in the City - with or without the proposed action. The addition of 900 additional medallions is not intended as a remedy to these situations, nor is it expected to significantly exacerbate these situations.

Traffic analysis only looks at rush hour traffic, what about the other hours of the day… (23)

Rush hour traffic represents the heaviest period of traffic volumes during the day (i.e. the worst-case condition) and the mitigations proposed address the impact of volumes at this

period. Therefore, mitigating traffic at the highest volumes would more than address traffic volumes at non-rush hour periods.

Accidents will increase as taxis race to get a fare (due to increased competition)/The DEIS says nothing about how the adding of 900 medallions results in additional injuries or deaths due to traffic crashes… (22) (27) (31) (39) (62)

The assertion that increasing competition among drivers, by raising the number of medallions in the City by seven (7) percent, will directly correlate to an increase in illegal and dangerous driving by taxi drivers, over-simplifies the relationship between taxicab supply and accident rates. Many variables factor into the number of accidents involving taxicabs. Included among the numerous variables are factors such as weather conditions, time of day, traffic volumes, driver training, traffic speeds, driver behavior, and the level of traffic law enforcement in the City.

Air Quality and Noise

The addition of 900 cars is going to result in more air pollution in the City… (1) (2) (21) (22) (32) (34) (62) (64)

The air quality analysis completed for the environmental impact statement shows that eight-hour concentrations of carbon monoxide (CO) in the future, after the sale of 900 medallions, would stay virtually the same as eight-hour CO concentration in the future without the sale of 900 medallions - at four of the five modeled intersections. One of the modeled intersections would experience an increase in CO eight-hour concentrations in the future, after the proposed sale of the 900 medallions, but would only increase insignificantly by 0.1 parts per million (ppm). Furthermore, the results of the air quality analysis for the proposed action show no violation of either the eight-hour CO standard of 9 ppm set forth by the National Ambient Air Quality Standards or the New York City de minimis criteria set forth in the CEQR Technical Manual.

The DEIS is defective in its treatment of air quality… (34)

The air quality section of the DEIS evaluates whether the proposed action complies with National Ambient Air Quality Standards and New York City's own de minimis criteria to assess the impact of the carbon monoxide increment of the proposed action. Specifically, a significant increase of carbon monoxide is an increase of 0.5 ppm or more in the maximum 8-hour average concentration at a location where the predicted No Build 8-hour concentration is equal to or between 8 and 9 ppm. Or, an increase of more than half the difference between No Build 8-hour concentrations and the 8-hour standard, when No Build concentrations are below 8 ppm. Using this accepted criteria, the result of the DEIS analysis determined that there would be no significant air quality impacts.

The addition of 900 cars is going to result in more air pollution in the City, especially in relation to New York City's Ozone Problem/Taxis contribute a disproportionately high percentage of vehicle emissions/The DEIS fails to analyze the impact the additional taxis will have on future attempts to meet stricter EPA ozone standards… (21) (64)

As noted in the DEIS (Section 3.17), ozone is formed through a series of reactions caused primarily by the mixture of nitrogen oxides (NOx) and volatile organic compounds (VOCs – which are ozone precursors) in the atmosphere in the presence of sunlight. Because the reactions occur slowly as the pollutants diffuse through the atmosphere, the resulting ozone levels are often found miles downwind from the sources of the ozone precursors. Therefore, ozone is a pollutant of regional concern, and its concentrations are assessed on a regional basis, not at a specific geographic location (e.g., traffic intersection).

The project study area is located within the New York-Northern New Jersey-Long Island metropolitan area that has been designated as a severe ozone nonattainment region. This ozone nonattainment region consists of the following counties: the five boroughs of New York City; Nassau, Suffolk, Orange (partial); Rockland; Westchester; and twelve counties of New Jersey (proximate to New York City). This is the region at which ozone is measured and assessed.

The responsibility of addressing and improving regional ozone conditions rests upon the New York Metropolitan Transportation Council (NYMTC). NYMTC has developed a regional transportation model that covers the entire NY-NJ-Long Island Metropolitan ozone nonattainment region. The regional model is used to predict vehicular emissions that contribute to regional ozone formation for the purposes of:

- *Determining current and future regional ozone conditions.*
- *Demonstrating the effectiveness of measures to improve regional ozone conditions.*

The NYMTC model is the official tool that is applied to the assessment of regional ozone conditions. It includes the consideration of existing traffic within the regional transportation network as well as demand, growth, and capacity-driven forecasts for future conditions. The NYMTC model predicts an ever-increasing number of vehicular trips, including taxis, because of overall regional growth.

The DEIS relies on modeling conducted by the New York Metropolitan Transportation Council (NYMTC) to justify the need for new medallions. What measures have been developed by NYMTC to address the impact of increase in taxi emissions caused by regional growth… (21) (64)

As noted previously, the potential increase in the number of taxi trips resulting from the availability of new medallions in New York City is a part of the region's future growth

and demand. This regional growth and demand is a key input to the NYMTC model that is used to predict vehicular trips, including those by taxis. The number of new medallions issued in any particular year in New York City is not specifically inputted into the model, as it would not be considered regionally significant for the purposes of assessing ozone conditions; however, it is incorporated as part of the region's overall growth forecast. The NYMTC model considers regional growth factors in its forecasts. Therefore, the ozone impact from the potential increase in New York City taxi trips has been incorporated into the NYMTC regional model. In other words, with respect to the TLC proposal, the NYMTC regional model accounts for increased vehicular trips in the region to assess ozone conditions, regardless of the availability of additional taxi medallions.

Potential emissions offset

It is anticipated that the presence of new taxis and their increased availability would offset, to some extent, the potential increase in the number of taxi trips. A reduction in the use of car services engaging in illegal pickups in the central business district, illegal cabs, rentals, and personal vehicles in New York City would limit the overall net increase in vehicle trips.

Conservative Ozone Precursor Emission Estimates

As summarized above, in general, ozone levels cannot be assessed on a project basis but at the regional level. To assess regional impacts, the NYMTC regional model was used to account for the taxi growth on an annual basis. The issuance of additional 900 medallions would serve part of the taxi demand, but is too small an increase to result in any significant regional ozone concerns. Furthermore, the new medallions would result in a reduction of trips by illegal cabs, as well as personal vehicle use that would offset the overall regional emissions from the proposed action.

However, in order to further quantify potential ozone-related emissions associated with the vehicle miles traveled (VMT) from proposed new medallions, the emission levels of ozone precursors were conservatively estimated by assuming that the VMT from the proposed action would be 100 percent (100%) new and are not part of regional growth nor reflect a reduction of existing trips from other vehicles and taxis as described above.

Based on an average of 63,400 annual VMT calculated for each city taxi (NYC Taxicab Fact Book, Schaller Consulting, September 2003), the 900 additional taxis would likely result in a total of 57,060,000 annual VMT. Based on average street and avenue speeds collected by the New York City Police Department, Traffic Control Division (Spring 2001 Midtown Speed Survey, NYPD) and average expressway speed data used by NYMTC the average taxi speed was assumed to be 14 miles per hour.

The emissions factor model, Mobile5b, with the taxi input file developed by NYCDEP (the same model used for CO impact analysis; see Chapter 3.17) was used to estimate the ozone precursor (i.e., NOX and VOC) emission factors for each taxi. The emission

factors were predicted to be 0.23 grams per mile (g/mi) for NOx and 0.15 g/mi for VOC. Therefore, total annual emissions from the 900 additional taxis within the entire city area would be approximately 14.5 tons per year (tpy) for NOx and 9.4 tpy for VOC.

While the proposed action is not a federal action, the Clean Air Act general conformity rule offers an ozone de minimis criterion that can be evaluated in the context of the proposed action. The general conformity rule requires that a formal conformity determination is required when the annual net total emissions from a federal action, occurring in a nonattainment area, equal or exceed an annual de minimis level. For an ozone severe nonattainment area such as where the proposed action would occur, conformity rules establish de minimis emission levels of 25 tpy for NOx or VOC. As defined by the general conformity rule, if the emissions do not exceed the de minimis level, the federal action has minimal air quality impact and therefore the action is determined to conform for the pollutant under study and no further analysis is necessary. Conversely, if the total annual emissions of a pollutant are above the de minimis level, a formal general conformity determination is applicable for that pollutant in order to determine air quality impact significance.

Since the levels of ozone precursors with the potential to emit under the proposed action were estimated to be below the 25 tpy-de minimis level, the proposed action would not result in a significant ozone impact on a regional basis. It should be further noted that the predicted levels are conservatively higher because they do not account for any non-new VMT such as:

- *VMT related to a normal regional growth from the service of the 900 additional taxis.*
- *VMT reduction from other vehicles (illegal cabs and street hails by for-hire vehicles in the central business district) due to the introduction of the 900 new taxis.*

Summary

The proposed action would not significantly increase regional ozone levels. Potential increased vehicular trips associated with the issuance of new medallions in New York City have been incorporated into the NYMTC model as part of the overall regional growth factors used in the prediction of regional ozone levels. Moreover, it is expected that some level of emission offset would occur as a result of the presence and availability of new taxis (i.e., overtime taxis, illegal cabs, rentals and personal vehicle use would be reduced). Consequently, the net increase in regional ozone from the proposed action would not be significant, and would result in a negligible regional impact.

Negative health effects on taxi drivers will increase… (22)

The DEIS assessed the potential for adverse public health impacts because of the proposed action. Public health concerns in the case of this particular action are primarily related to air quality due to the increase in automobiles. The DEIS concludes that the increase in vehicular traffic is not expected to result in significant adverse air quality impacts. In addition, the types of engines and fuel used by taxicab engines are not considered major contributors to particulate matter (PM_{10} and $PM_{2.5}$) and carbon monoxide levels in the future with the action are still expected to be in conformance with the City's attainment status.

900 more taxis will increase noise pollution …. (62)

According to the NYC CEQR Technical Manual (Section 311.1), vehicle noise studies are typically not required if an action does not increase Passenger Car Equivalents (PCEs) by 100% or more. Increases in PCEs below this level do not generally create perceptible noise increases. The proposed sale of taxi cab medallions would increase the number of vehicles at any one location by a maximum of 4% and would increase PCEs by an even smaller percentage. Therefore no perceptible noise increases would be anticipated.

<u>Socioeconomic Conditions</u>

The taxi industry and the public will be harmed by this action… (1)

The DEIS analysis shows that the proposed action will not impact air quality levels, and that the potential traffic impacts can be mitigated by signal timing reallocation (and in one case by traffic lane re-striping). In addition, the proposed action will benefit the general public by providing more cab service in the City. Concerning the impact of the proposed action on the taxi industry, as illustrated in the Socioeconomic Conditions section (Section 3.2) of the EIS, if a sale of 900 medallions were accompanied by a 23.4 percent fare hike, aggregate taxi industry revenues would rise by 18.5 percent in 2004. A higher fare increase of 44.2 percent would likely expand 2004 revenues by 33.8 percent. If a fare rate increase were to accompany the sale of 900 medallions over the 2004-2006 time period, it would also impact medallion values. With a 44.2 percent fare increase, the projected average price of a medallion would rise from $239,000 in 2003 to $279,000 in 2004. By contrast, a 23.4 percent fare rise would take medallion values to $258,000. These values compare to a no-action condition in which medallion values are expected to rise to $261,000 by 2007.

The report does not take into account that the drivers/Taxi drivers have poor working conditions (no benefits, low wages, etc.) and the addition of 900 cabs is going to depress driver income… (2) (4) (7) (11) (12) (15) (16) (17) (18) (22) (23) (24) (26) (28) (30) (31) (32) (33) (37) (39) (42) (56)

As illustrated in the Socioeconomic Conditions section (Section 3.2) of the EIS, taxicab drivers in 2003 made an average hourly wage of $13.50. In 2007, after all the 900 medallions have been sold, driver earnings are expected to rise to an average of $14.00 an hour, if there were no fare increase at the same time the medallion sale occurs. If a fare increase of 23.4 percent or 44.2 percent is implemented during the same period as the medallion sale, driver earnings are expected to rise to an hourly average of $18 and $22 respectively.

There should be a fare increase/The fare raise should be more than 25 percent (25%)… (3) (4) (8) (20) (27) (31) (32)

The TLC has received petitions for two fare increases (23.4%, and 44.2%), whether a fare increase will occur, and by what percentage the increase will be, have not been determined. A fare increase is considered a Type II action as promulgated by 6 NYCRR Part 617.5 of the State Environmental Quality Review Act, and is not subject to environmental review. However, a fare increase does require specific review as set forth in Section 2304 of the New York City Charter.

Lease caps should be lower… (2) (7) (24) (56)

Maximum lease rates that may be charged to drivers of taxicabs have been set by the Commission since 1996. Prior to that date, lease rates were not regulated by the TLC. The TLC sets the maximum lease rate, but does not require a minimum rate be charged. Any analysis of a possible increase in the rate of fare will have an effect upon actual lease rates charged, since the lease rate will determine, together with the rate of fare and overall ridership, the share of fare revenue which accrues to the driver, if not the owner of the medallion, as well as the revenue to be generated by the owner. TLC Rule 1-78(e) sets forth the criteria to be used by the TLC in determining if changes to the maximum lease rate are necessary. While the lease may impact upon owners' and drivers' incomes, the lease rate does not impact upon ridership, or overall revenue that would be generated by any rate of fare increase. Accordingly, lease rates, or the maximum lease rate authorized by the TLC, will not significantly affect those portions of the DEIS analysis relating to ridership analyses, demand for service analyses, or total industry income. Even if maximum lease rates were to be adjusted by the TLC in the future, the options available to drivers, such as switching from daily to long-term leasing, would minimize the impact of lease rate changes upon service levels. Furthermore, it is the market, rather than TLC regulations, which determines actual lease rates during most shifts, other than the shifts most lucrative to drivers which attract more drivers than there are vehicles available. With respect to other shifts, the maximum lease rate would have a minimal impact upon ridership or service availability.

First, there should be a fare hike and then there should be an increase in medallions… (28)

The DEIS evaluated the environmental impacts of the proposed action, which is the proposed sale of 900 additional medallions over the next three years. The DEIS also evaluated how a fare hike occurring at the same time would mitigate the potential significant socioeconomic impacts of the proposed medallion sale.

Agree with many of the key findings of the DEIS, most importantly the link between the need for a fare increase and a successful medallion sale… (8) (41)

The TLC has received petitions for two fare increases (23.4%, and 44.2%), whether a fare increase will occur, and by what percentage the increase will be, have not been determined.

A fare increase is necessary for a medallion increase to be beneficial… (8)

Two petitions for a fare increase (23.4%, and 44.2%) have been received by the TLC and as discussed in the Socioeconomic Conditions section (Section 3.2) of the DEIS. If a fare increase accompanies the proposed action it would have a mitigating effect on the socioeconomic impact that would likely occur if a medallion sale is not accompanied by a fare increase.

The report does not take into account leasing costs… (33)

The Socioeconomic Conditions section (Section 3.2) of the DEIS is based on a complex economic analysis of the taxi industry. The analysis utilized computer modeling to study the existing and future socioeconomic conditions of the taxicab industry with the proposed action in place. Industry costs, including leasing costs, were included in the model when evaluating the socioeconomic impacts of the proposed action.

The 900 cabs will lead to an oversupply/Ridership will go down after raising fares... (17) (18) (27) (30) (39)

As discussed in the Socioeconomic Conditions section (Section 3.2) of the EIS, if a fare increase does not accompany the medallion sale, trip volumes are expected to increase from 171,540,000 trips in 2003 to 179,350,000 trips in 2007. If a fare increase were to accompany the sale of 900 taxi medallions, under the 23.4 percent fare increase scenario, trip volumes would return to near 2003 levels by the year 2007. Under the 44.2 percent fare increase scenario, taxi volumes would decrease from 171,540,000 trips in 2003 to 165,360,000 taxi trips in 2007.

The addition of 900 more cars will reduce the ability of vehicles to move around the city/Increasing taxis to facilitate rush hour commutes will only worsen the commute as traffic congestion will increase… (21) (64)

The Traffic and Parking section of the DEIS (Section 3.15) did find that the traffic would be significantly adversely impacted by the proposed action. However, through implementing a series of mitigations that would reallocate signal timing at the intersections analyzed (and in one case re-striping of lanes) the adverse traffic impact of the proposed action would be mitigated.

The intent of the proposed action is to improve taxi service in New York City by making more cabs available to potential passengers at all hours of the day, including rush hours. The 900 additional cabs will not all be exclusively driven at rush hour and at the City's most congested areas. Instead, it is anticipated that the additional cabs will be driven at different periods over a 24 hour day and at locations spread out across Manhattan and other parts of the City.

<u>Transit and Pedestrians</u>

The real consequence of the action will be more risk to pedestrians… (2) (3) (10) (27)

The proposed sale of 900 medallions is not expected to have an impact on pedestrians in New York City. The criteria for assessing pedestrian impacts are outlined in the CEQR Technical Manual that was used to analyze the environmental impact of the proposed action. Since the proposed action does not involve increasing residential or commercial density in the City - and would therefore not increase pedestrian volumes- the action, as per CEQR guidelines, does not require a detailed pedestrian assessment. Furthermore, the additional 900 vehicles would be spread over a 24-hour period and only a portion of the total cars will be on the City's streets at any one time. In addition, 900 vehicles is a small number, relative to the total number of vehicles on city streets (including rush hours), and the proposed action would not substantially increase the total vehicle miles traveled in New York City.

I'd like to see the sources for the pedestrian section… (3)

The source of the methodology and criteria applied in the pedestrian section of the DEIS is the CEQR Technical Manual. The Manual was referenced to determine whether a pedestrian assessment is necessary for the proposed action. The sale of 900 medallions does not meet the criteria put forth by the CEQR technical Manual, thus a detailed pedestrian analysis was not warranted for the proposed action.

Taxicabs violate traffic safety laws and are a danger to pedestrians… (9) (10) (27)

This comment does not pertain to the content of the DEIS.

Increasing one second on the light time is going to impact people trying to cross that street… (9) (10) (16) (17) (32)

The proposed traffic mitigations of the DEIS would reallocate the approach signal timing for a given intersection. While east-west or north-south signal changes would be re-allocated, there would be no net loss of signal time at an intersection, and thus no net loss of pedestrian signal time.

The DEIS does not consider the effect on other transportation systems or industries in New York City/Additional taxis will discourage transit ridership… (13) (21) (35) (64)

The addition of 900 new taxicabs will meet an existing demand for taxi service. Although some of the unmet taxi demand is currently being met by transit, this is a very minor fraction of the total trips provided by the network of buses and subways in Manhattan. Furthermore, if there is a fare increase that accompanies the proposed action, under a 23.4 percent fare increase scenario, trip volumes would return to near 2003 levels by the year 2007. Under the 44.2 percent fare increase scenario, taxi volumes would decrease from 171,540,000 trips in 2003 to 165,360,000 taxi trips in 2007. Since the total number of taxi trips is not expected to increase, the proposed action is not expected to affect the number of transit trips of other transportation systems in the City.

Figure A-4 shows peak volumes at a peak hour at one of the DEIS selected locations. On this map, during that one hour I calculated, there are 4,210 right and left turns. These turns are performed at the same time as an unknown number…of pedestrians have a green light at that turn and about 40 to 50 seconds to cross the road in a delineated crosswalk…that's an impact and it's an impact without the additional 900 taxicabs… (3)

Figure A-4 in Appendix A of the DEIS, shows 2003 existing traffic volumes for the weekday PM peak hour (5:00-6:00 PM). Figure A-4 shows traffic volumes on East 53rd Street to East 61st Street on Third Avenue and includes traffic volumes on 57th Street on Lexington Avenue and Second Avenue. There are not 4,210 right and left turns at any one of the intersections. There are 4,545 total left and right turns for all approaches shown on Figure A-4. However, adding up all left and right vehicle turns is not a good analytical technique for determining potential pedestrian impact, as it does not show the number of vehicles turning at specific intersections where an impact may occur.

The highest number of turns at one intersection is 595 vehicles turning east at 59th Street onto the Queensboro bridge. If the 900 additional medallions are issued in New York City, the additional cabs will be spread out across the traffic network of the City (most cabs will be in Manhattan) in shifts over a 24-hour period. Therefore, only a few of the 900 taxicabs would be added to the traffic volumes of this study area shown in Figure A-4 during this time period and an even smaller portion of cabs would be added to the 595

vehicles making the right turn onto the Queensboro bridge. Furthermore, according to CEQR guidelines, a pedestrian analysis is warranted when an action increases the number of pedestrians. The proposed action will add a minimal number of taxis to the combined number of vehicles turning at any one intersection at any one time and the proposed action does not add to the number of pedestrians in New York City.

Comments on the Proposal to Reserve Additional Medallions For Wheelchair Accessible Taxicabs

There should be more than just 81 accessible cabs as part of this action/ all 900 additional medallions should be accessible/all taxicabs should be accessible… (9) (14) (25) (29) (36) (37) (38) (40) (43) (45) (46) (47) (48) (49) (50) (52) (54) (55) (58) (59) (63)

The DEIS is structured to consider the environmental impacts of the proposed action. As part of the proposed action, nine (9) percent of the 300 medallions sold in 2003-04, 2004-05 and 2005-06 would be restricted to wheelchair accessible taxicabs, if these vehicles can achieve a bid price that is at least ninety percent (90%) of the average price achieved for unrestricted medallions.

Comments on the Proposal to Reserve Additional Medallions For Clean Fuel Taxicabs

The DEIS should make clear that the minimum 81 taxis should be issued as clean fuel vehicles… (29) (34) (55)

The DEIS is a technical document that analyzed the environmental effects of the proposed action. As part of the proposed action, as required by Local Law 51, nine (9) percent of the 900 medallions issued will be reserved for taxis that are powered by compressed natural gas or hybrid engine technology, if these vehicles can achieve a bid price that is at least ninety percent (90%) of the average price achieved of the unrestricted medallions.

Pleased with the 9% 'clean air' Cars (Local Law 51 of 2003), but with a 7% increase in taxis, more needs to be done… (21) (29) (34) (64)

This comment does not pertain to the technical analyses and conclusions put forth in the DEIS report.

Every new taxi should be an alternative fuel vehicle and fully accessible… (29) (55)

The proposed action that the DEIS evaluated called for the sale of 900 medallions over the next tree years. As part of the action, up to nine (9) percent of the 300 medallions sold in 2003-04, 2004-05 and 2005-06 are to be restricted to vehicles that are wheelchair accessible and up to nine (9) percent of the medallions restricted to vehicles that run on

compressed natural gas (CNG) or hybrid fueling technology. If these restricted medallions cannot achieve a bid price that is at least ninety percent (90%) of the average price achieved for unrestricted medallions, the restricted medallions would be sold as unrestricted.

General Comments on the Proposed Action

The 900 medallions should be issued as "Super Medallions" with radio dispatch capability so cabs would be more willing to drive to the outer boroughs, because they could be dispatched to a pick-up instead of deadheading back to Manhattan… (19)

This proposal was not part of the proposed action and was not studied as part of the DEIS.

The proposed sale will increase the competition among drivers… (24)

As stated previously, while the competition for fares would potentially increase because of the additional taxicab supply, if the medallion sale is accompanied by a fare increase the average hourly wage of taxi drivers is expected to increase.

The 900 medallions will have short term benefits but no long term gains… (31)

As stated previously, the proposed sale of the 900 medallions is intended to improve overall taxi service and availability to passengers and if the sale is accompanied by a fare increase, the action will increase revenue in the taxi industry, benefiting medallion owners and drivers.

Selling 300 medallions is not enough. The TLC should issue 500 medallions over the next 10 years with fifty percent (50%) allocated to Federation members… (6)

This comment does not pertain to the content of the DEIS.

There will be no taxi drivers for the additional medallions… (1) (7) (23) (32) (35) (42)

It is reasonable to assume that based on the experience after the sale of additional medallions in 1996 and 1997 that drivers will be available to drive the 900 additional taxicabs. Indeed, the number of licensed taxi drivers in the City has increased nineteen percent (19%) from 35,160 licensed taxi drivers at the end of fiscal year 2000 (ending June 30) to the 41,850 taxi drivers that are currently licensed. In addition, if a fare increase accompanies the additional medallion sale, it would result in higher driving earnings, which will make the taxi driver occupation more appealing to those looking for employment.

In order to increase revenue, the TLC should increase medallion registration fees, not the number of medallions…. (13)

This proposal was not part of the proposed action and was not analyzed in the DEIS.

General Comments On the DEIS

The DEIS does not consider driver utilization of the current amount of taxis… (35)

The DEIS considers the potential impact of the worst-case scenario for each of the technical sections. In the case of the proposed action the DEIS considers the effect on the environment of having 13,087 licensed taxicabs (12,187 current medallions plus the proposed 900 additional medallions) in New York City.

The DEIS does not show the deficiency of service to the disabled community… (43)

The intent of the DEIS is to assess the environmental impacts of the proposed action. The quality of taxi service provided to passengers or potential passengers is outside the scope of the DEIS.

The DEIS does not cover discrimination by drivers of disabled people or people of color… (44)

The intent of the DEIS is to assess the environmental impacts of the proposed action. The quality of taxi service provided to passengers or potential passengers is outside the scope of the DEIS.

There was not enough time to review the DEIS before the hearing… (1)

The DEIS Notice of Completion was noted in the City Record on December 24, 26, and 29-31 of 2003. The Notice of Completion and Notice of Public hearing were published in the New York Post on December 26, 2003. The law requires that at least 15 days notice for the last public hearing be given after the release of the DEIS. The last public hearing was on January 12, 2004, more than 15 days subsequent to the release of the DEIS.

Furthermore, the deadline to submit written comments on the DEIS was January 23, 2004 and an electronic version of the DEIS was available for download on the TLC's web site.

There are no sources for the conclusions in the DEIS… (1)

The DEIS is a technical document that analyzes the potential for significant adverse impacts related to the implementation of a proposed action. Each section of the DEIS discusses how the action was analyzed and the methodology used if a detailed assessment was warranted.

The DEIS fails to consider the present and future needs of the taxi rider… (3)

The purpose of the proposed action, as expressed in the DEIS, is to provide more taxicabs to meet the present and future demand for taxi service.

The DEIS devotes one page, page 91 off the internet, page 89 in this book. Why are the pages different? … (3)

The file on the internet is an Adobe Acrobat PDF version of the hardcopy DEIS. When the PDF file is opened in the Adobe Acrobat program, the program's numbering system considers the cover page of the DEIS as page one. In actuality, as found on the hardcopy version of the DEIS, page one starts with the Executive Summary. To match the two documents correctly, one should look at the page numbers in the footer of each page and match each section and page number to those listed in the table of contents.

The DEIS should address alternatives that would result in greater utilization of existing taxi supply, such as establishing centralized taxi depots at underserved areas throughout the City, establishing incentives to bring more cabs on the street during periods of peak demand, or allowing for multiple passenger rides from the City's airports into Manhattan during peak travel periods … (21) (64)

The DEIS assesses the proposed action and alternatives to the proposed action that have been identified by TLC. The objective of the proposed action is to increase the numbers of taxicabs available to serve the public and thereby improve service and availability. Taxicabs provide a unique transportation service, as it allows for passengers to hail a cruising cab at the time and place of their choosing and be provided with point-to-point transport. The alternatives mentioned by the commentor would potentially improve taxicab utilization, by expanding the use of group rides. This is supported by the TLC, which has successfully implemented group ride programs in selected locations. However, the expansion of group rides alone cannot be expected to meet the demand for increased taxicab service that would be addressed by the proposed action.

<u>General Comments on Taxi Service in New York City</u>

To increase ridership, centralized depots and incentives to drive during peak hours and multi-passenger rides from the airports should be encouraged/shifts should be staggered … (21) (23) (24) (31) (32) (37) (38) (39) (61) (64)

These comments relate to public policy issues that are outside the scope of the DEIS. The purpose of the DEIS is to assess the environmental impacts of the proposed sale of 900 additional medallions.

There are alternatives to increasing the size of the taxi fleet in order to improve taxi service… (62)

This comment relates to public policy issues that are outside the scope of the DEIS. The purpose of the DEIS is to assess the environmental impacts of the proposed sale of 900 additional medallions.

No taxi wants to pick up fares at major transportation hubs (e.g. Penn Station) due to excessive ticketing… (38)

This comment does not pertain to the content of the DEIS.

The TLC should promote the air train taxi stand at Jamaica Station… (29)

This comment does not pertain to the content of the DEIS.

Drivers should be tested in English while being allowed to write their responses in Spanish… (6)

This comment does not pertain to the content of the DEIS.

Lou Riccio is the current president of Urbitran Associates and also the DOT commissioner when Mayor Dinkins wanted to create a black car medallion to raise money for the city… (17)

Lou Riccio is not the president of Urbitran Associates, he is the Senior Vice President of Construction at Urbitran Associates. Mr. Riccio was the Commissioner of the Department of Transportation from 1990 to 1993. Mr. Riccio was not involved in developing the proposed action and he was not involved in completing the DEIS for the proposed action.

Drivers should get more money for outer borough trips and trips to the airport. Taxis should be exempt from restrictive traffic regulations (e.g. driving in bus lanes, making turns on certain streets). Drivers pay too much for leasing arrangements… (7) (41) (42) (60)

These comments do not pertain to the content of the DEIS.

Illegal Street hails should be abolished… (41) (60) (61)

This comment does not pertain to the content of the DEIS

Riders should not be charged extra or refused service to go to the outer boroughs or required additional services due to a disability… (9)

This comment does not pertain to the content of the DEIS.

Appendices

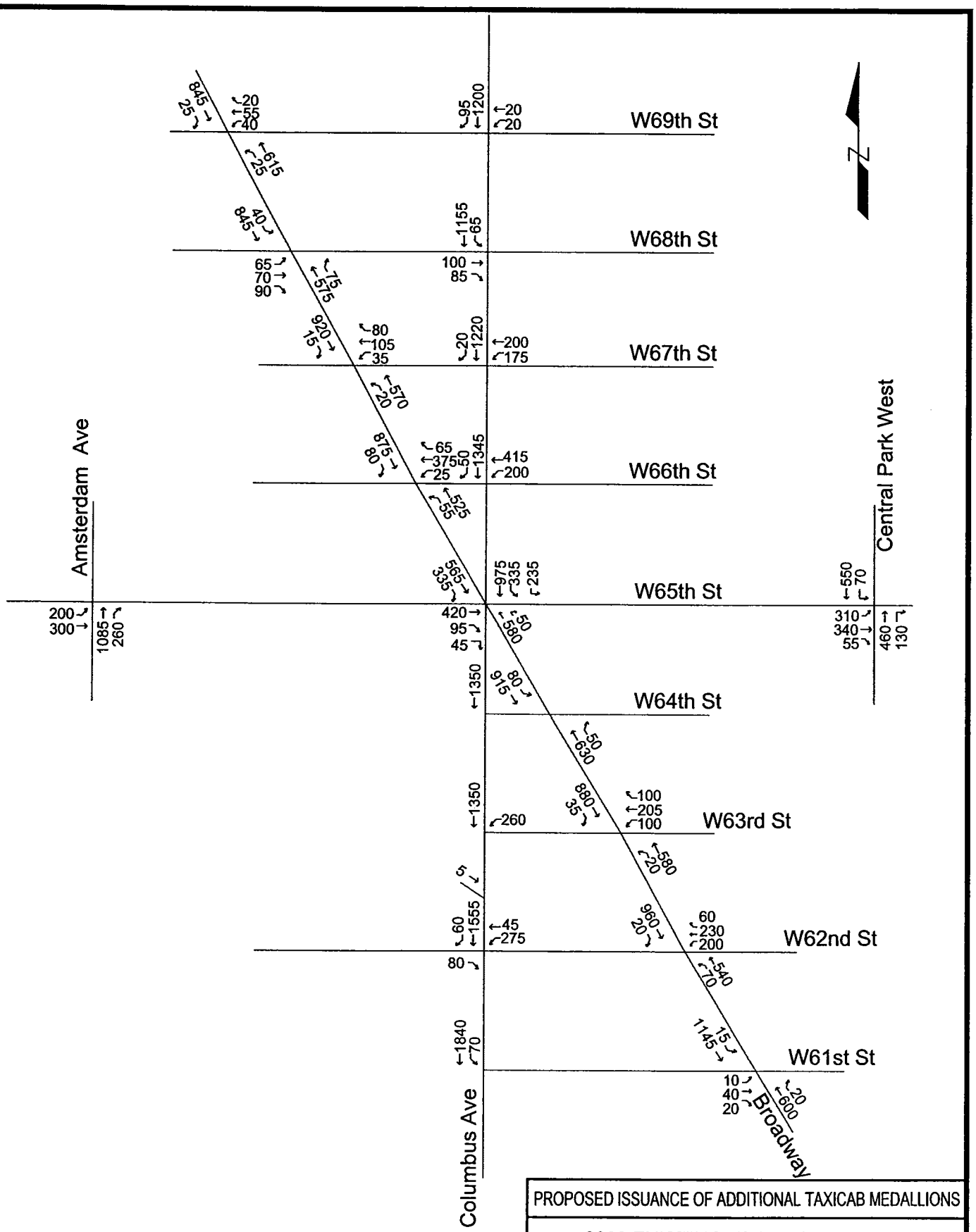
Appendix A

Traffic Analysis

Flow Maps

Year 2003 Existing Traffic Conditions

Flow Maps

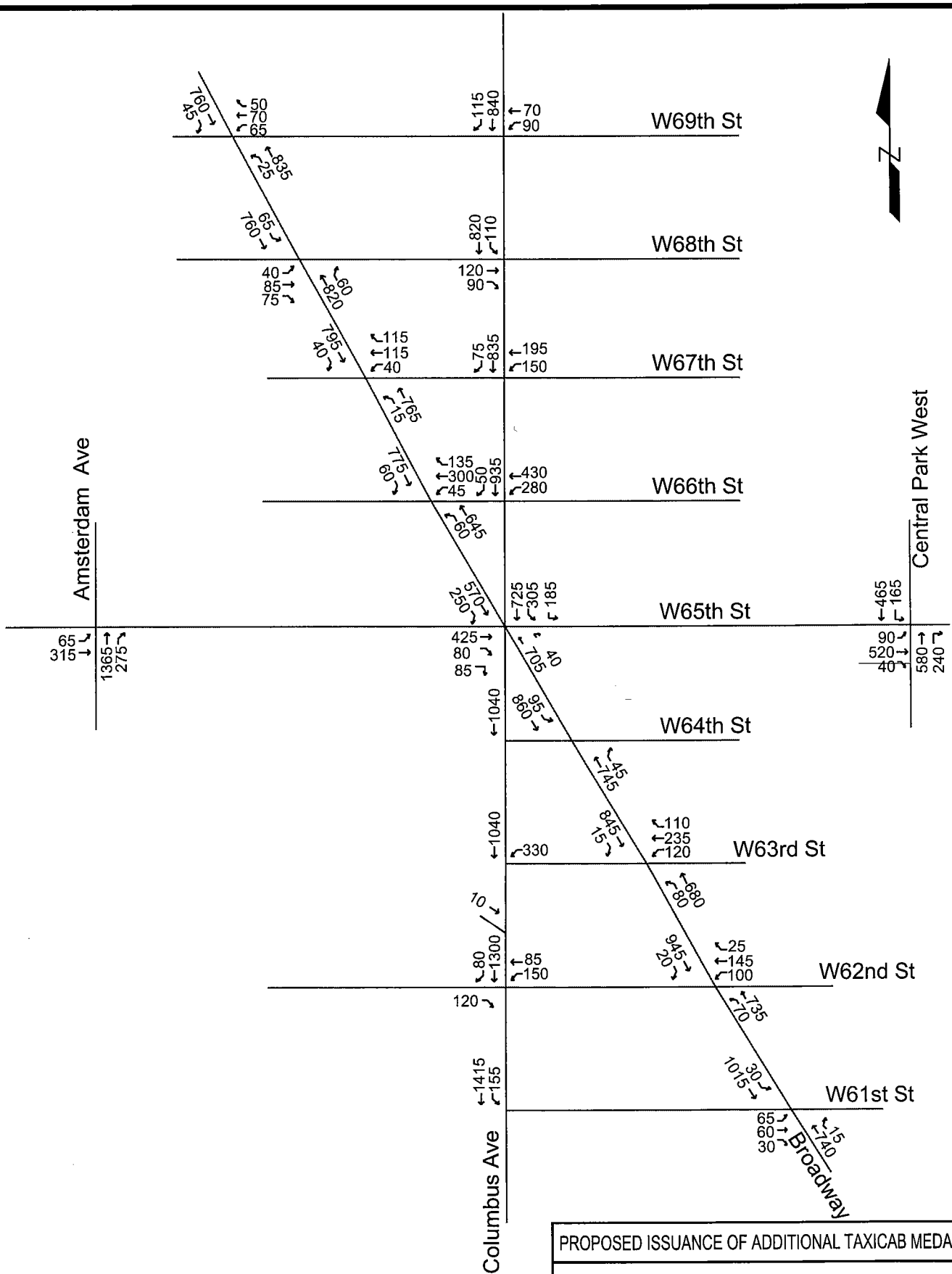


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2003 EXISTING TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-1

Not to Scale

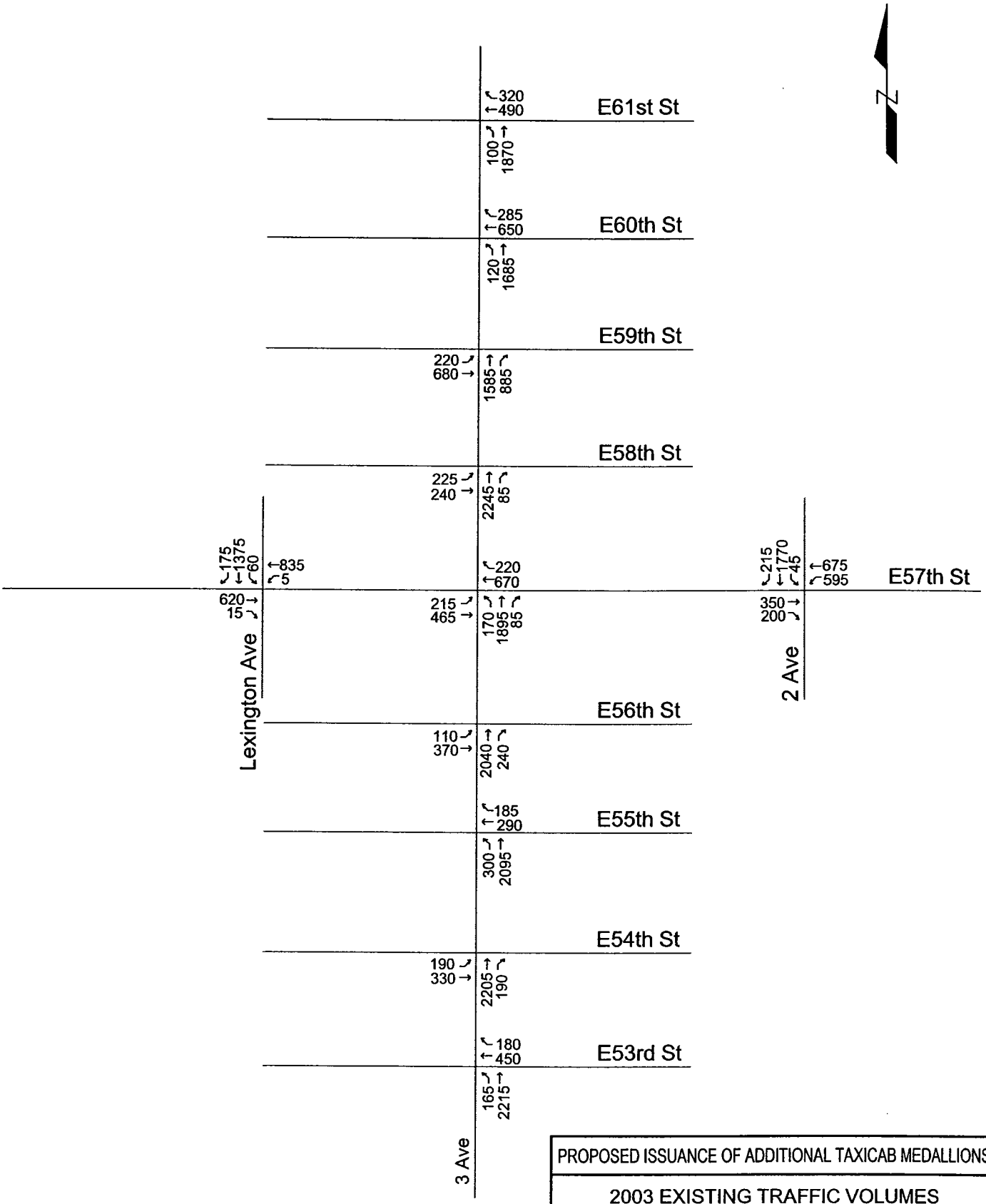


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2003 EXISTING TRAFFIC VOLUME
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-2

Not to Scale

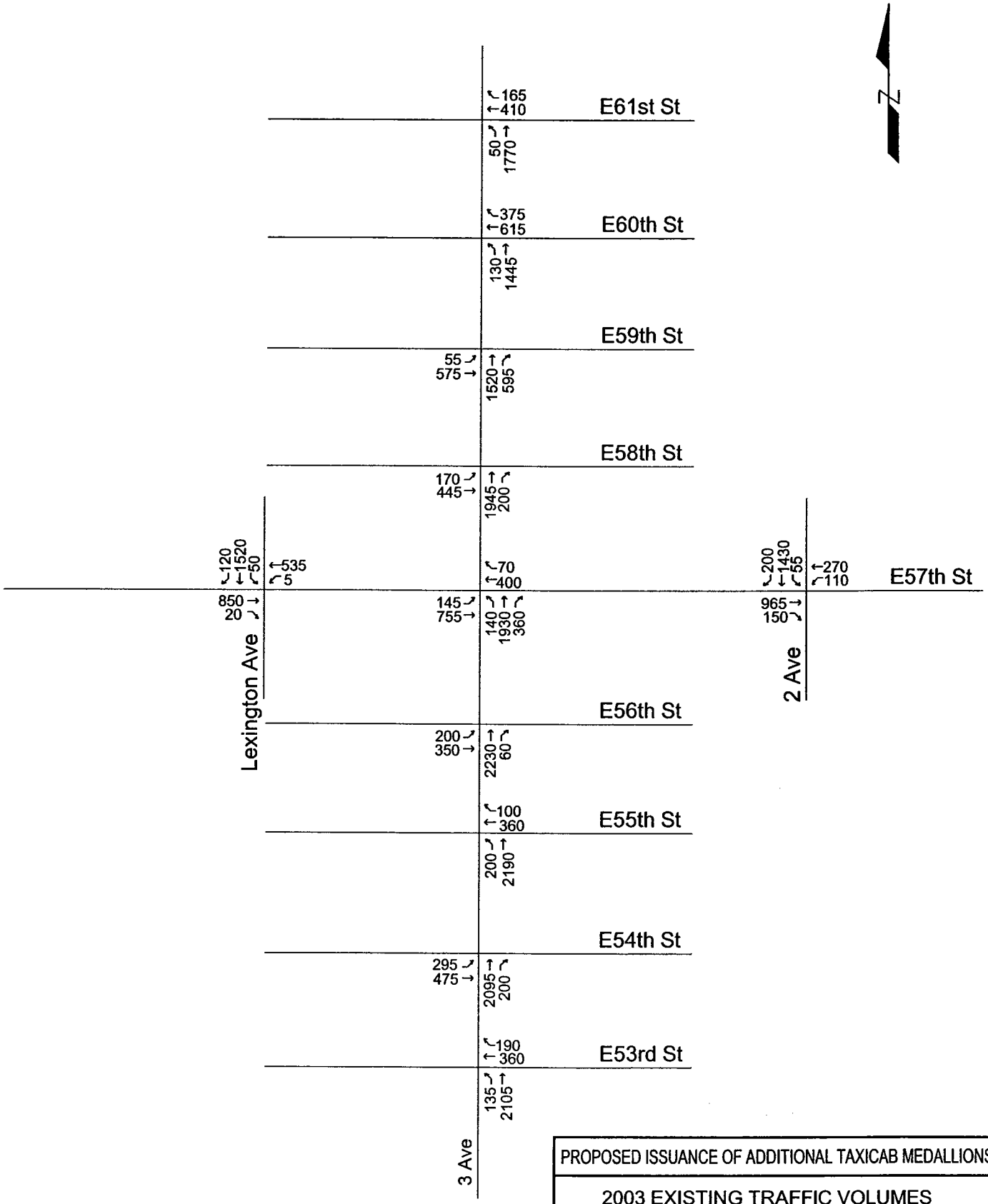


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2003 EXISTING TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-3

Not to Scale

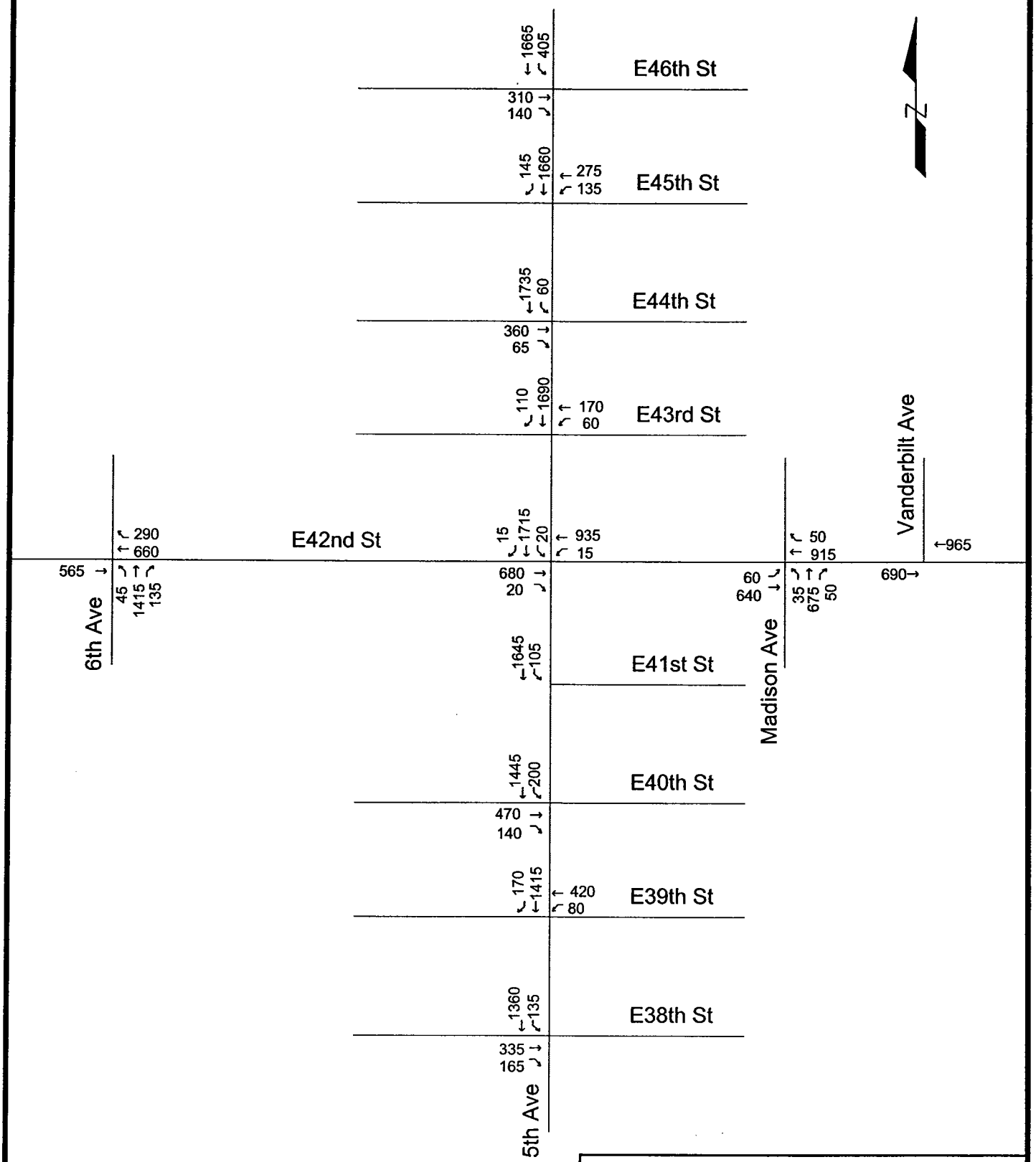


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2003 EXISTING TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-4

Not to Scale

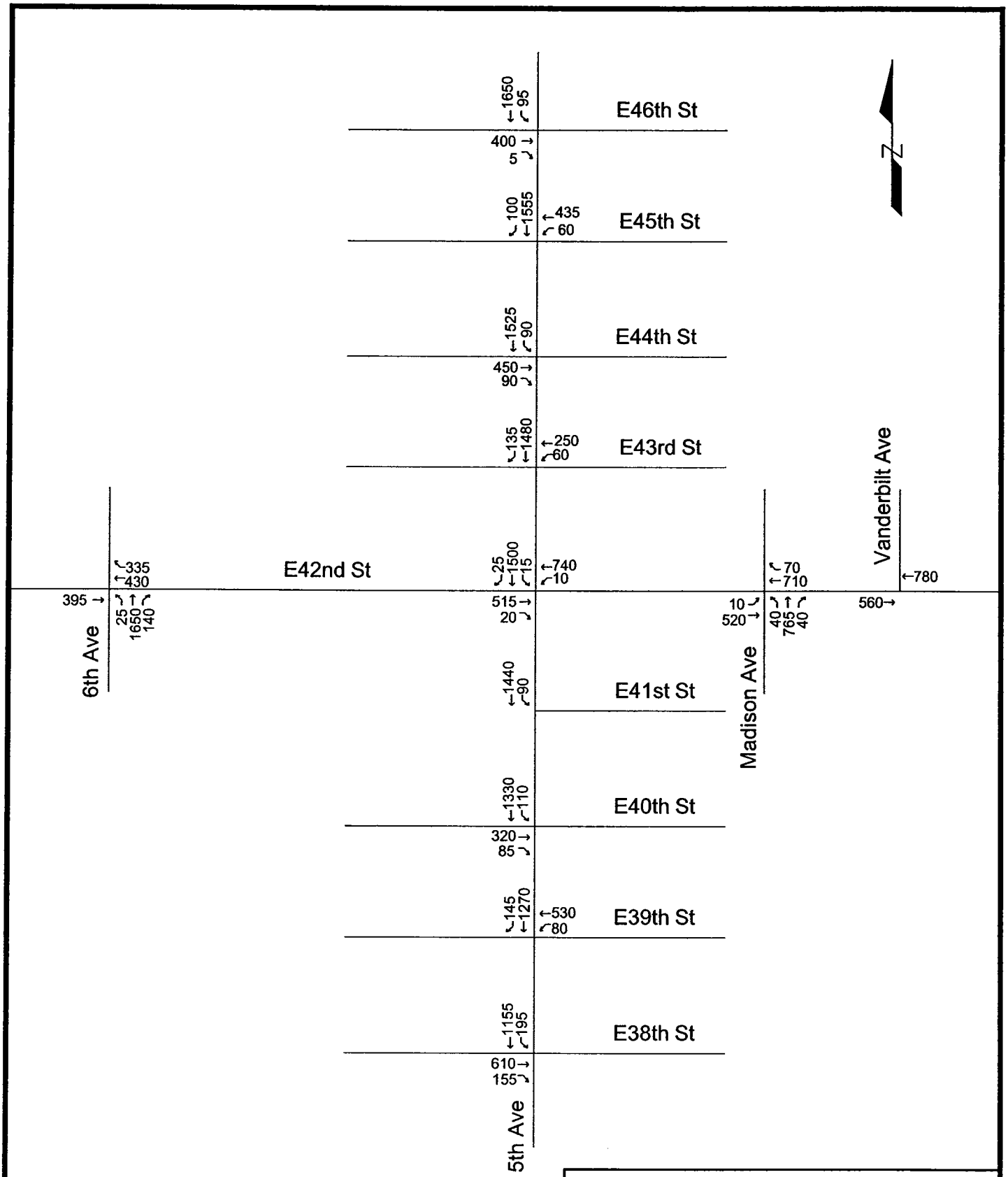


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2003 EXISTING TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-5

Not to Scale

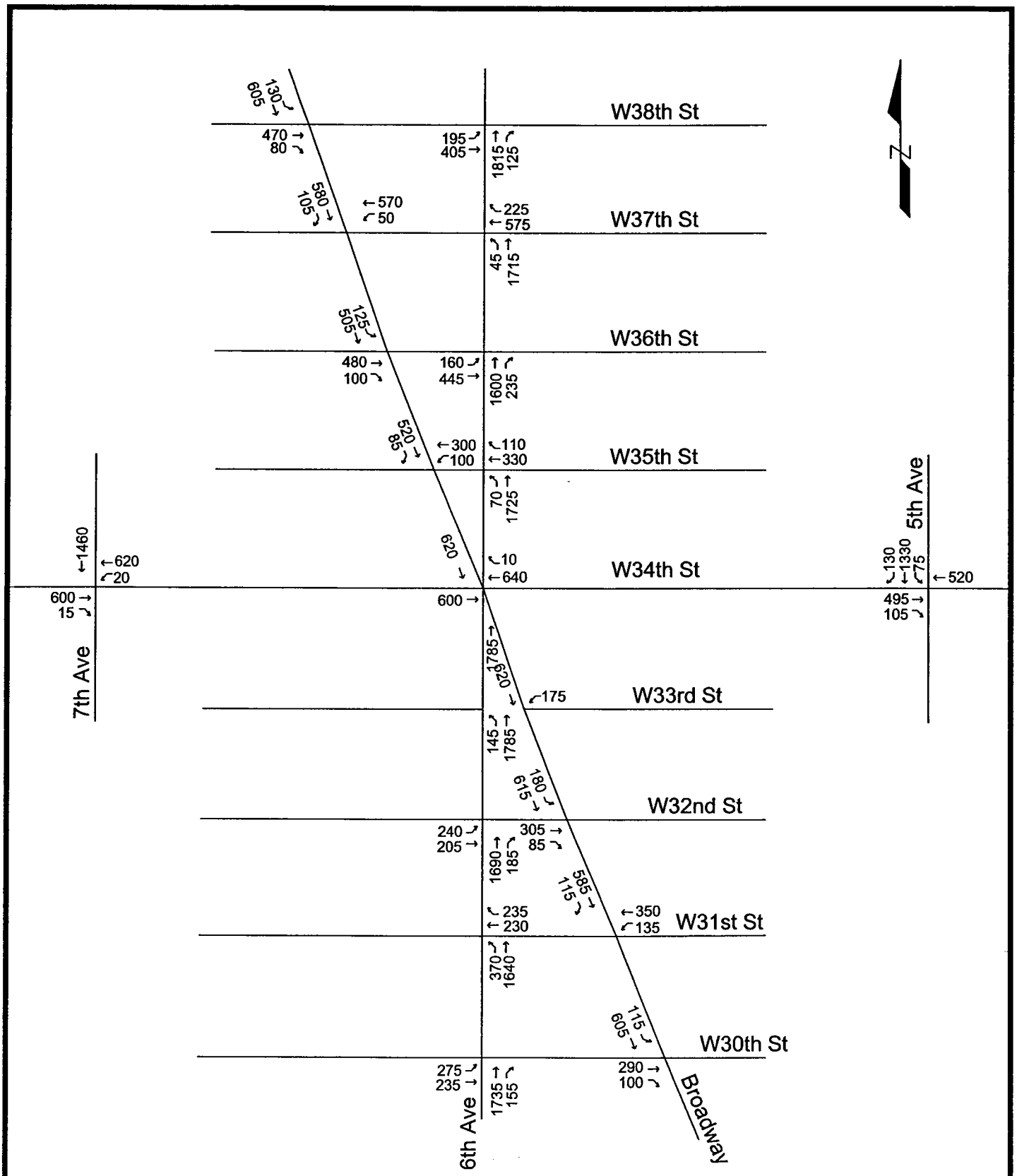


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2003 EXISTING TRAFFIC VOLUME
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-6

Not to Scale

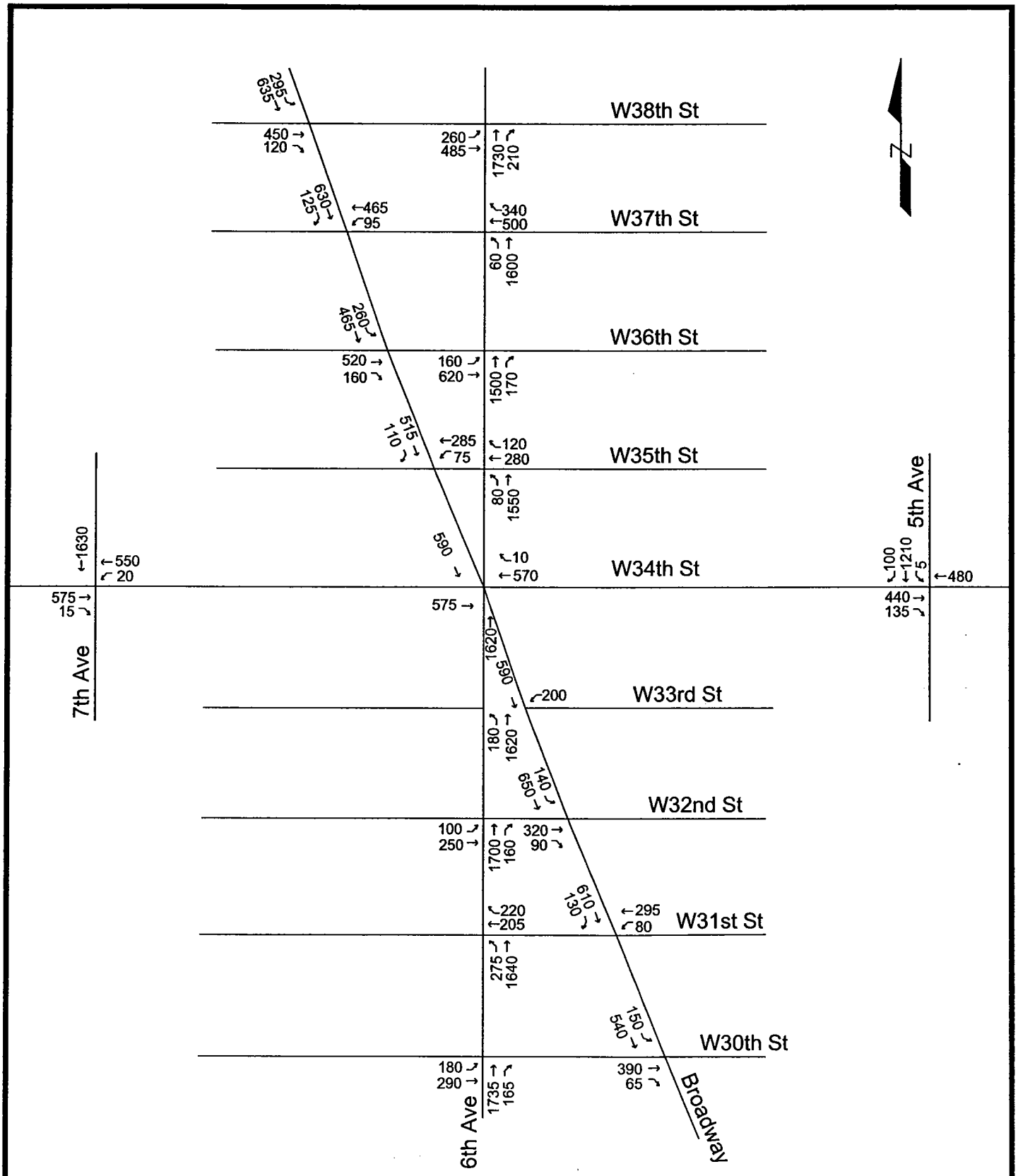


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2003 EXISTING TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-7

Not to Scale

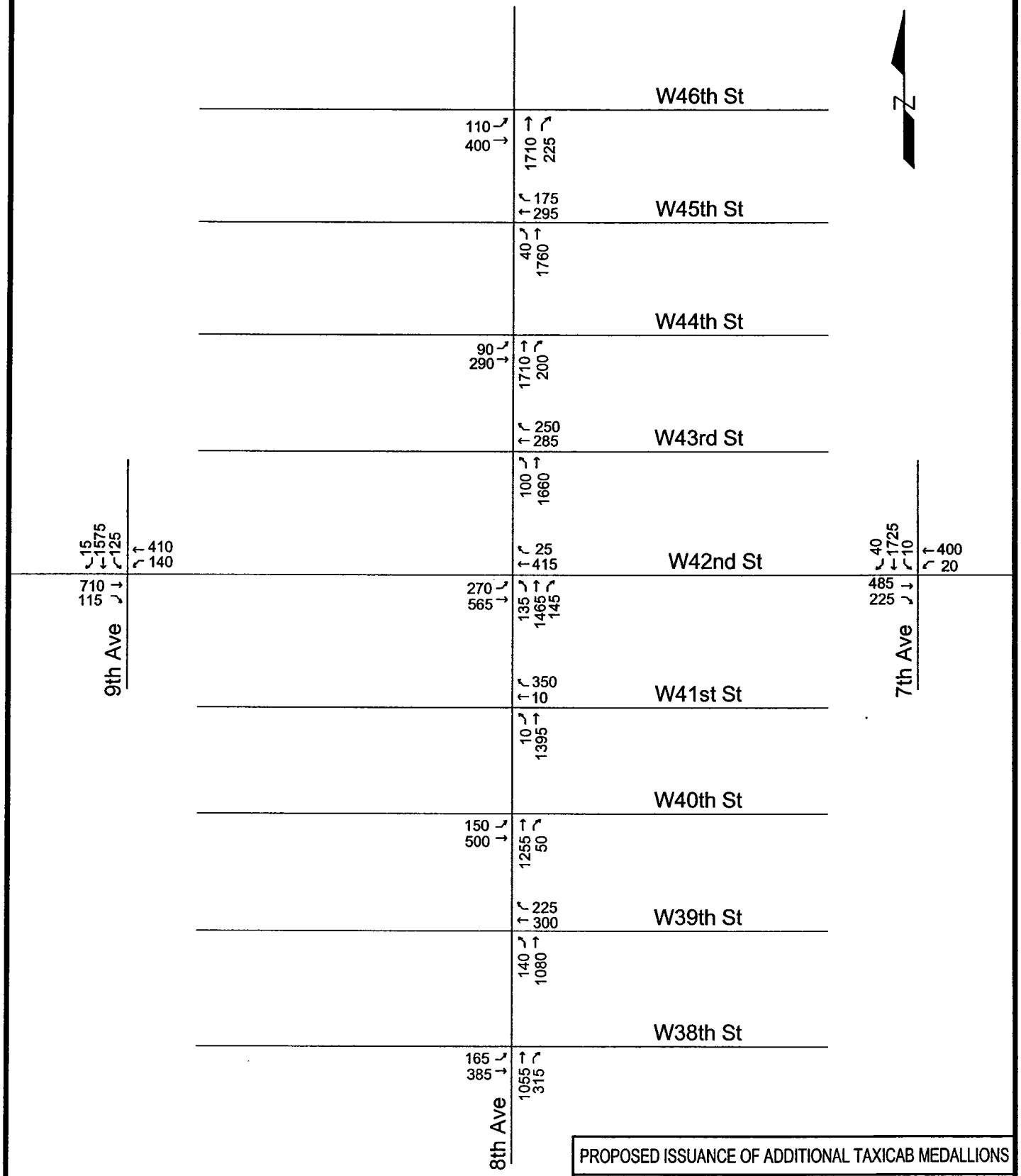


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2003 EXISTING TRAFFIC VOLUME
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-8

Not to Scale

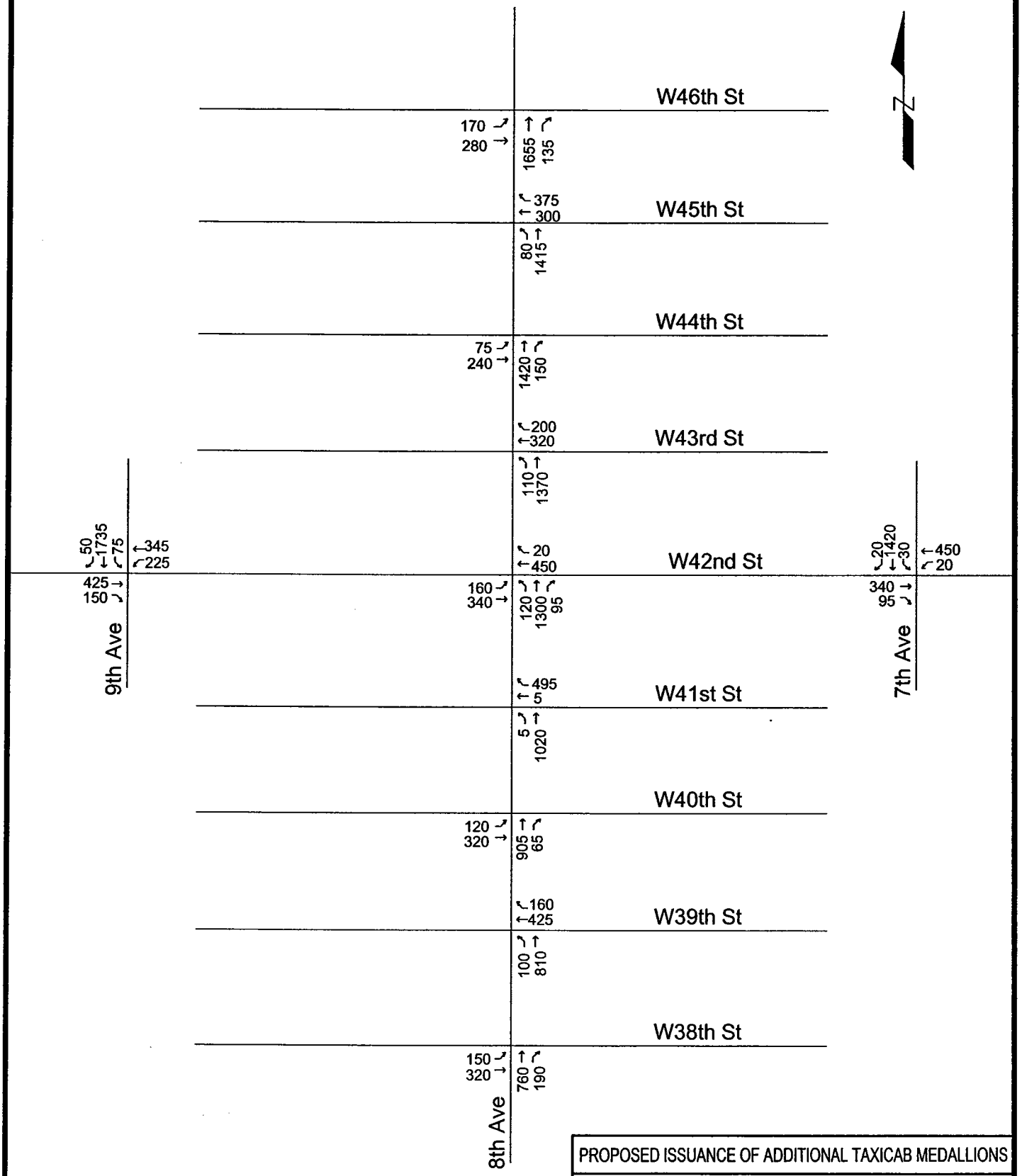


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2003 EXISTING TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-9

Not to Scale



PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

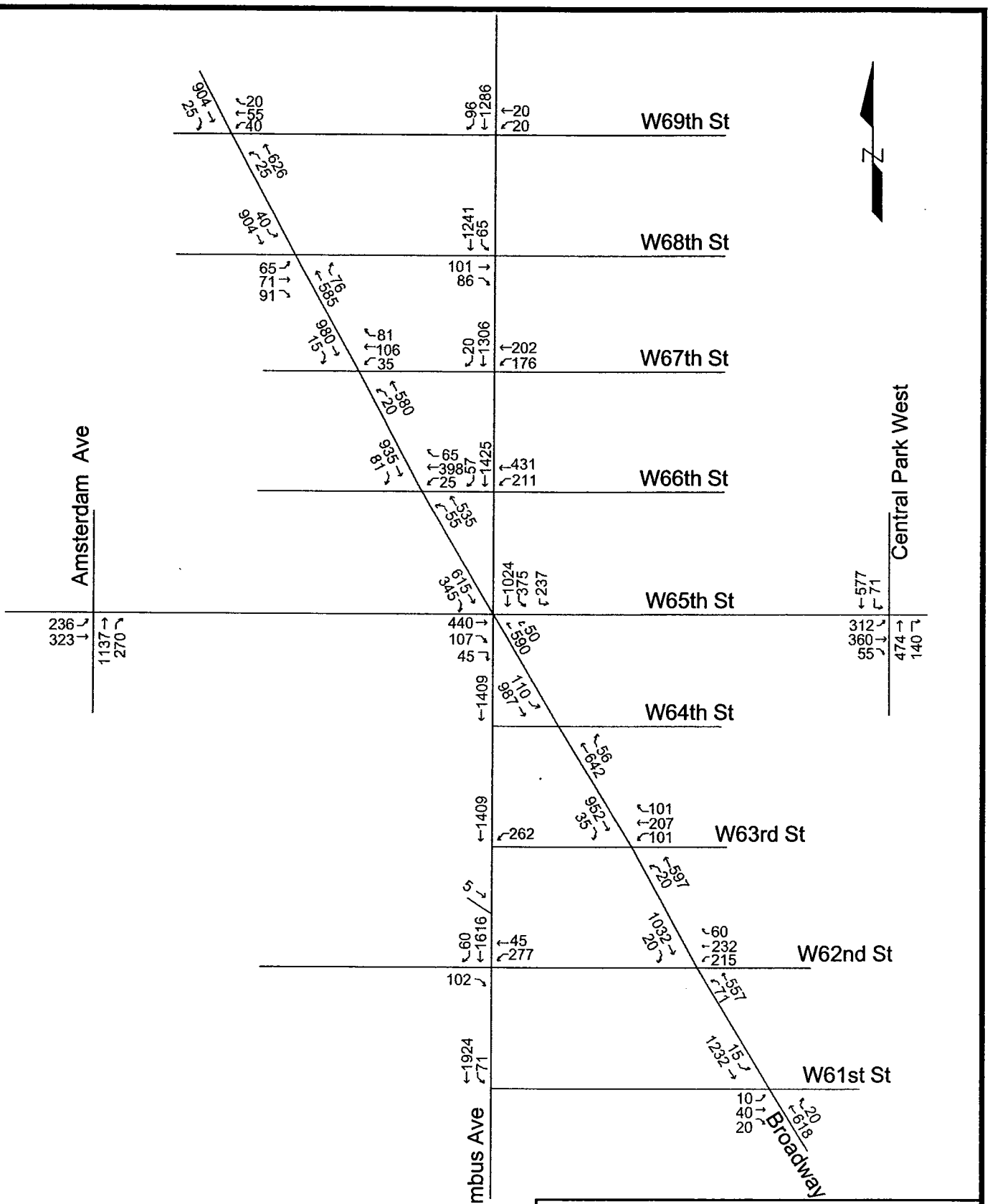
2003 EXISTING TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-10

Not to Scale

No-Build Traffic Conditions Flow Maps

2004, 2005, and 2006 Horizon Years

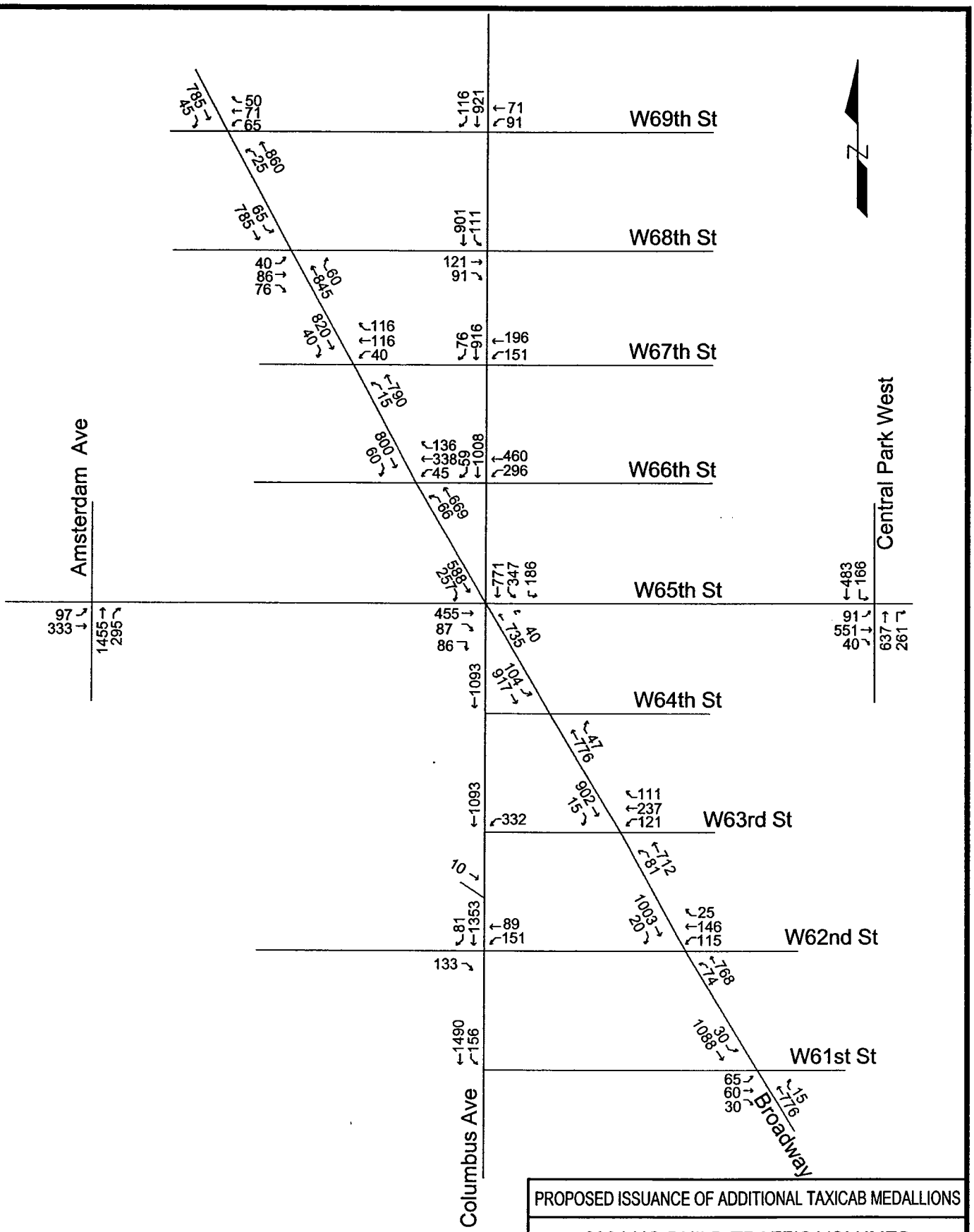


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 NO BUILD TRAFFIC VOLUMES
AM PEAK HOUR (7:45-8:45 AM)

Figure: A-11

Not to Scale

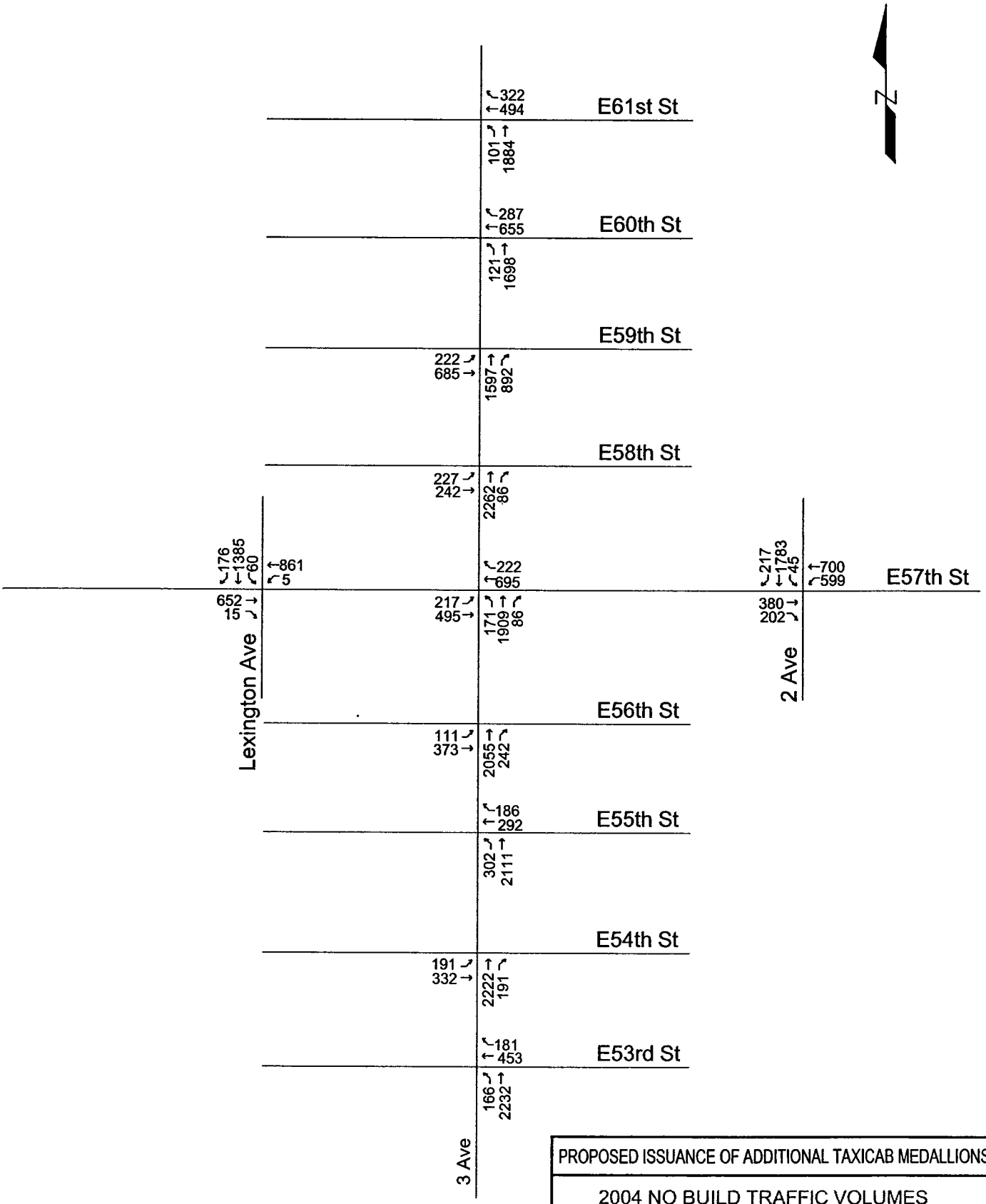


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 NO BUILD TRAFFIC VOLUMES
PM PEAK HOUR (5:00-6:00 PM)

Figure: A-12

Not to Scale

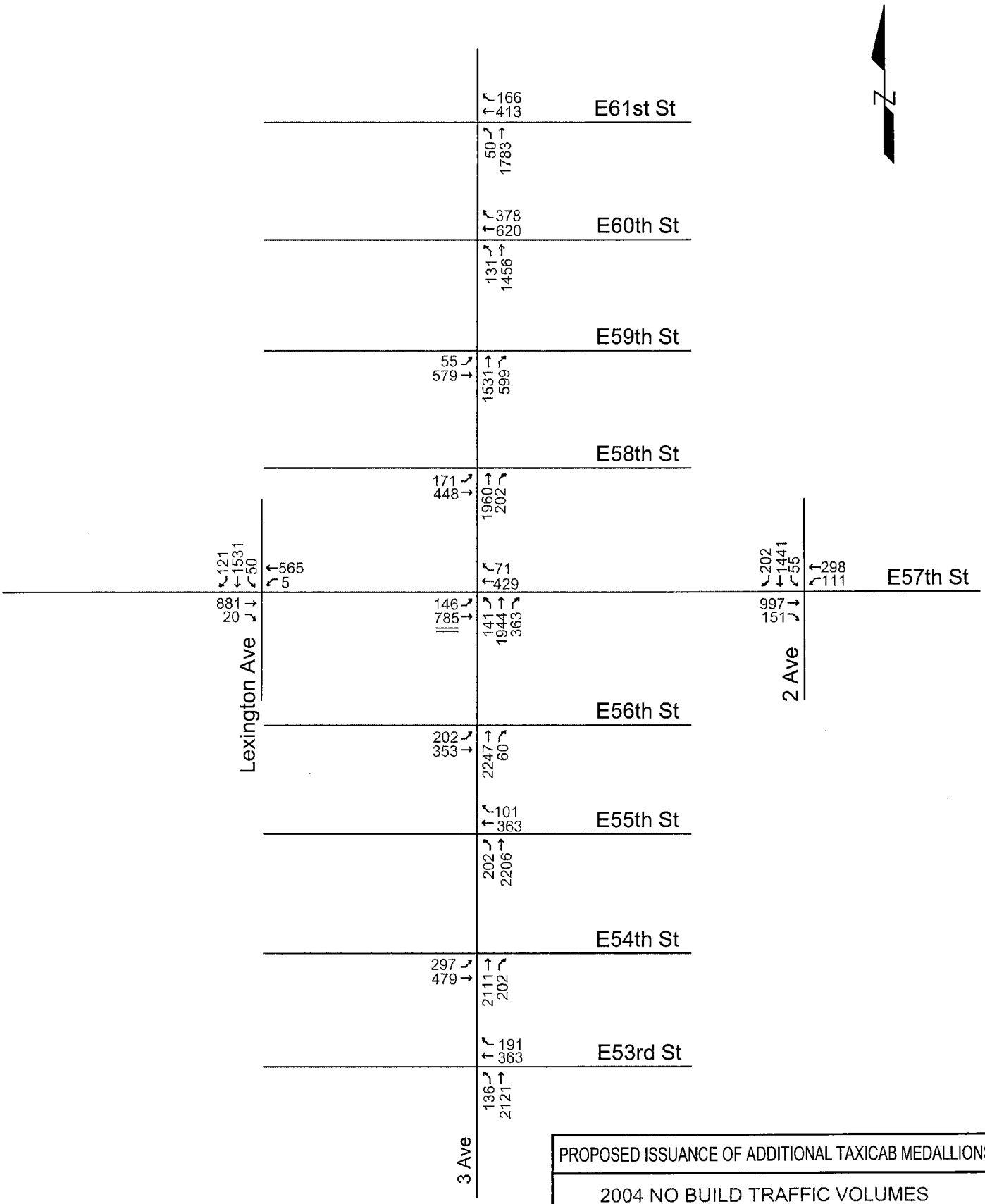


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 NO BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-13

Not to Scale

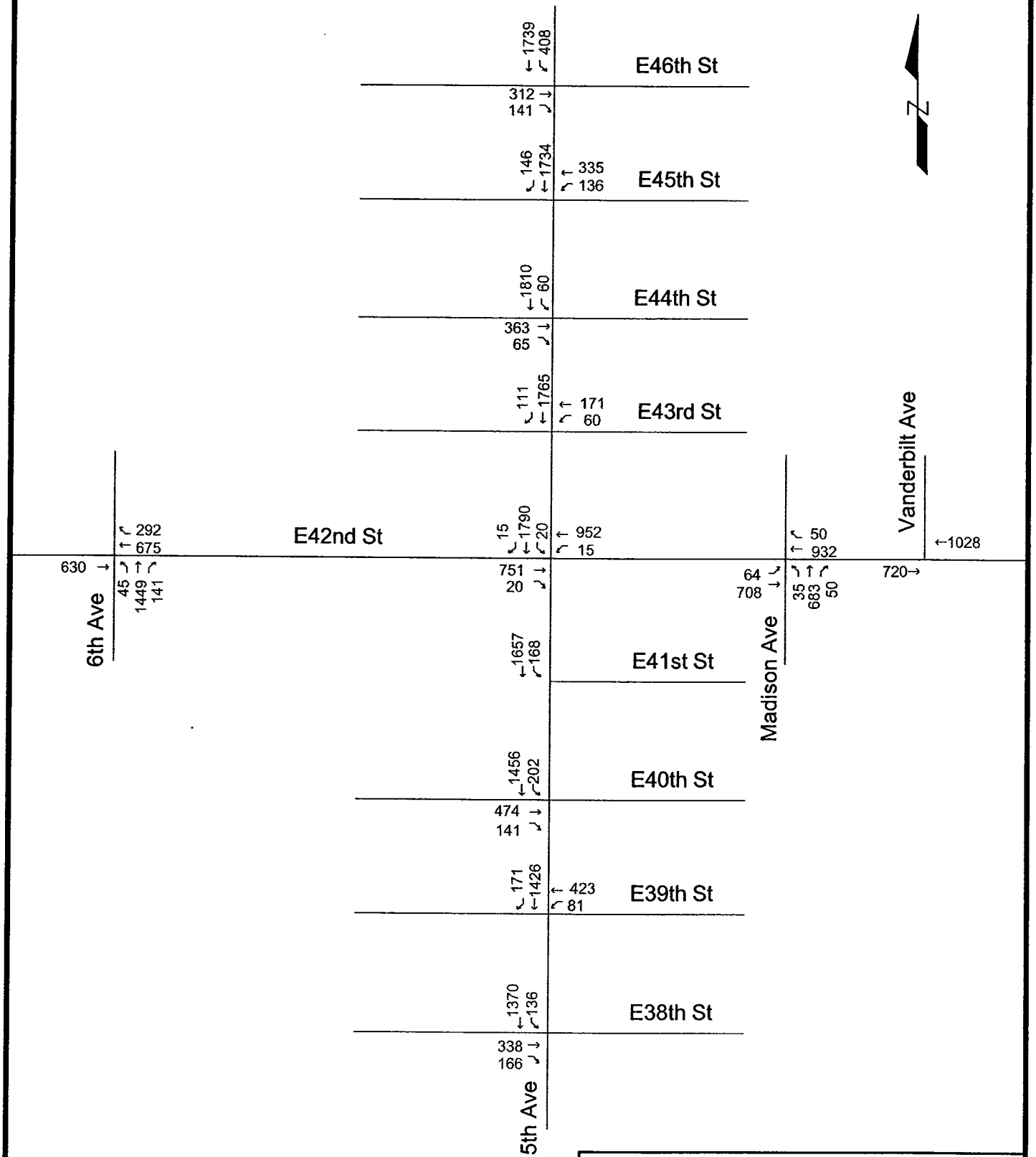


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 NO BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-14

Not to Scale

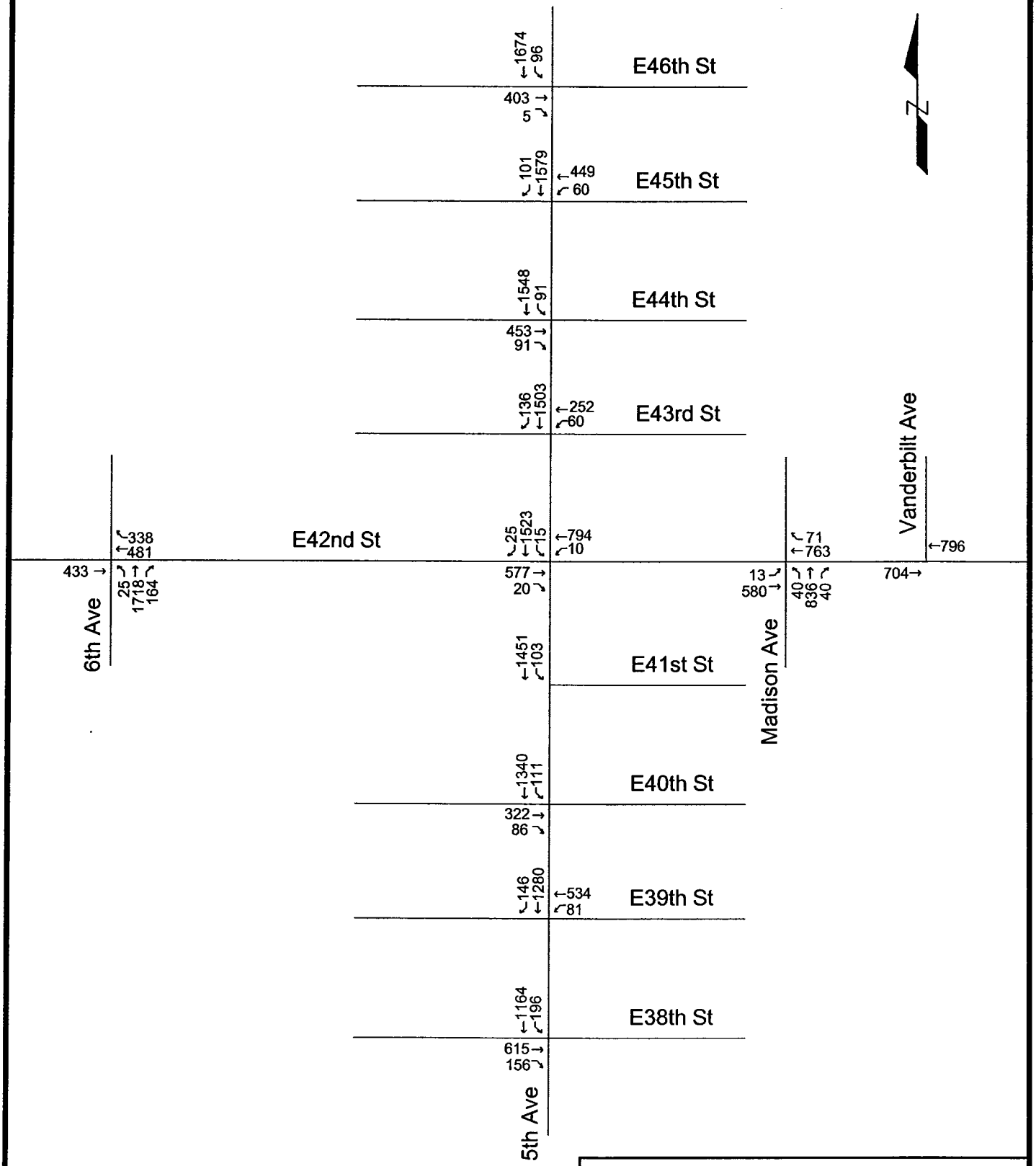


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 NO-BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-15

Not to Scale

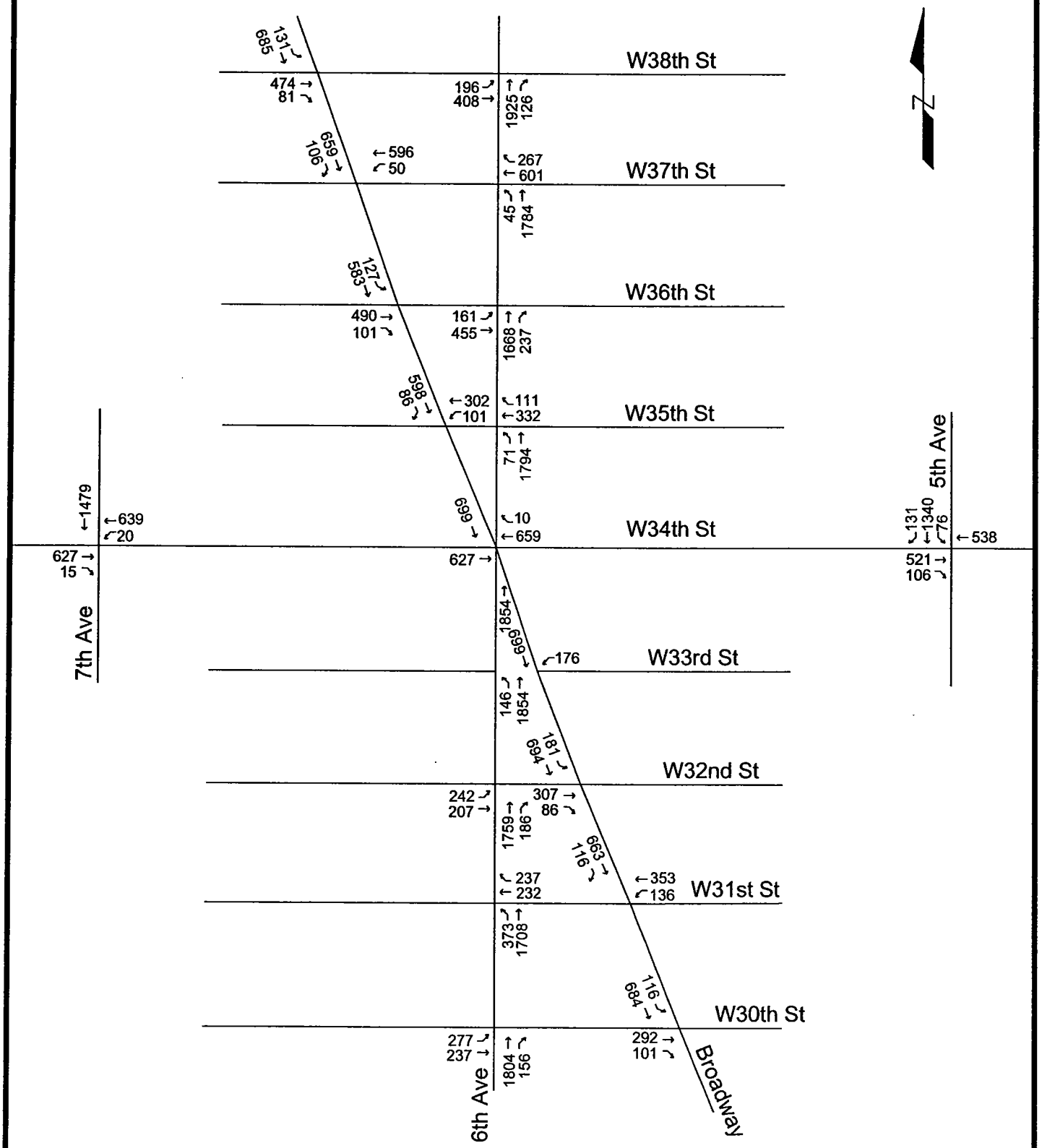


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 NO-BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-16

Not to Scale

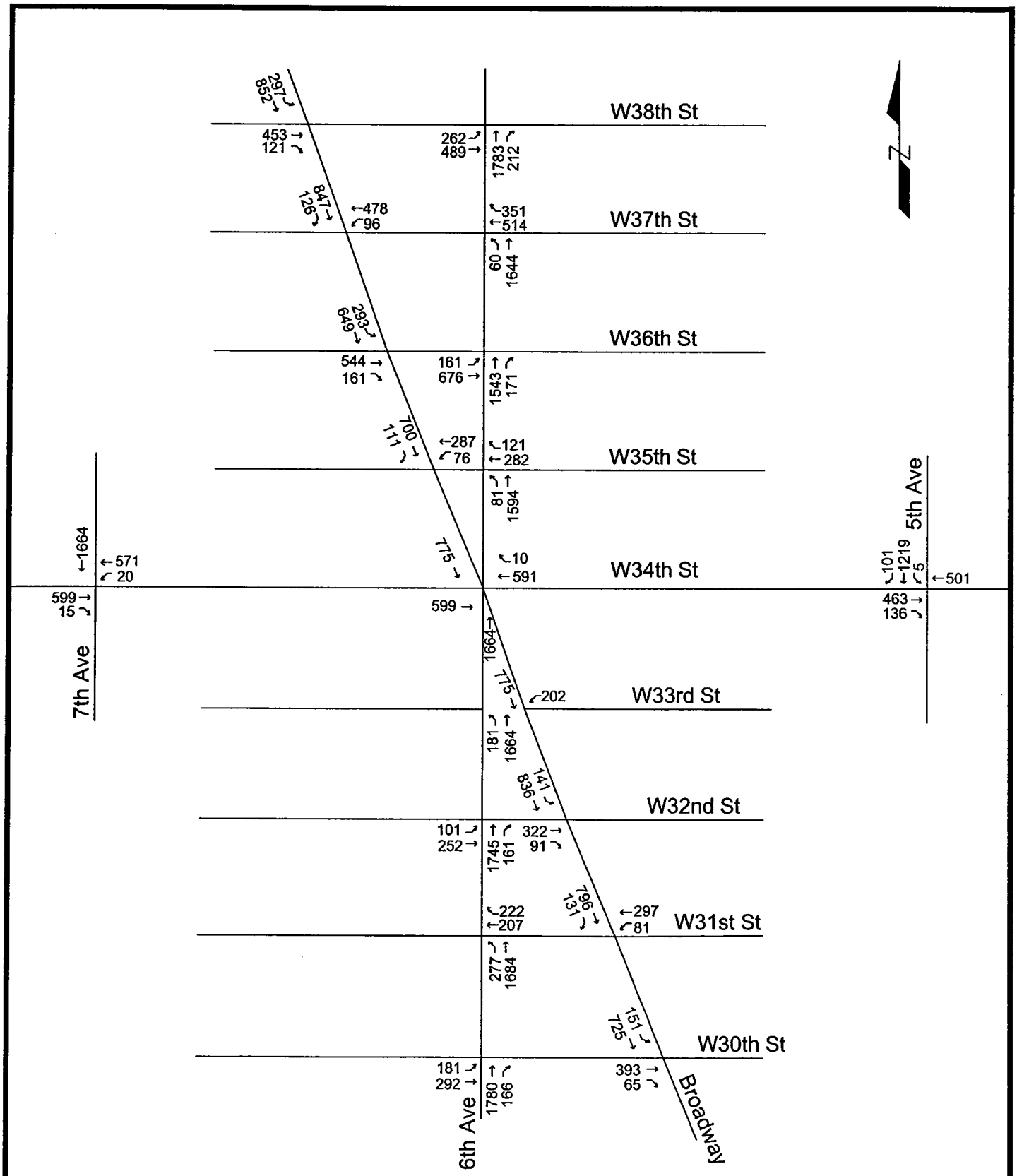


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 NO BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-17

Not to Scale

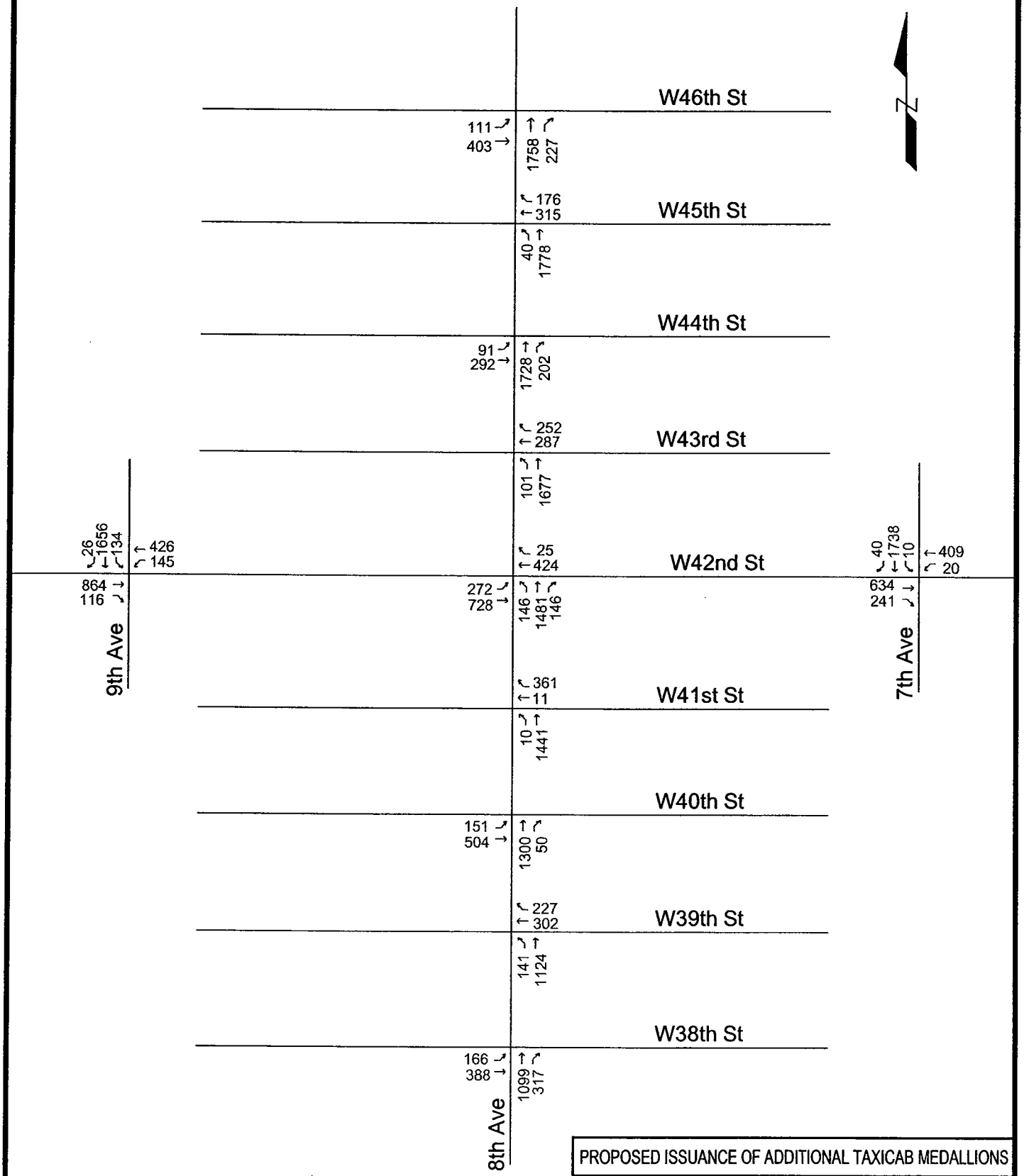


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 NO BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-18

Not to Scale

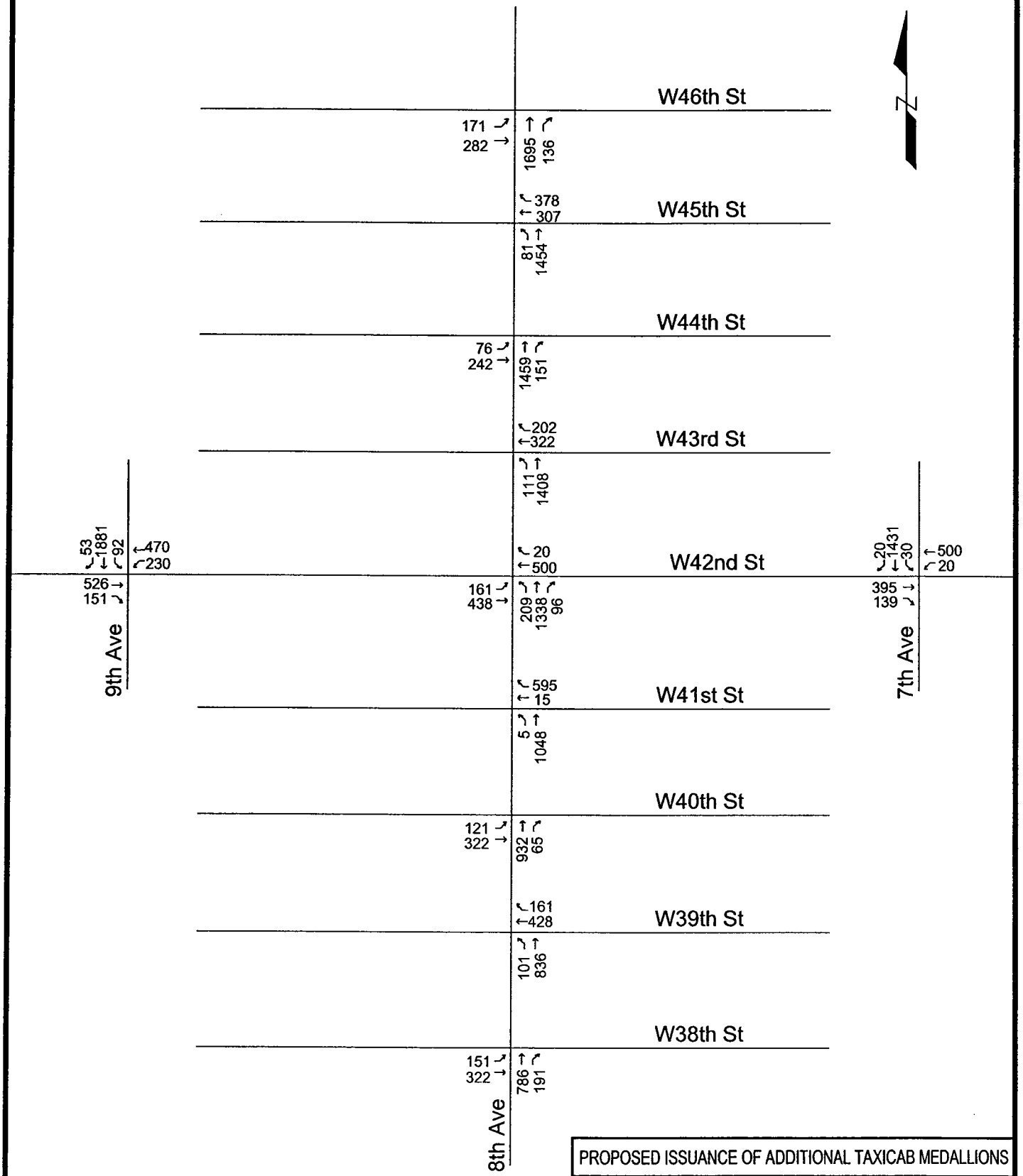


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 NO BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-19

Not to Scale

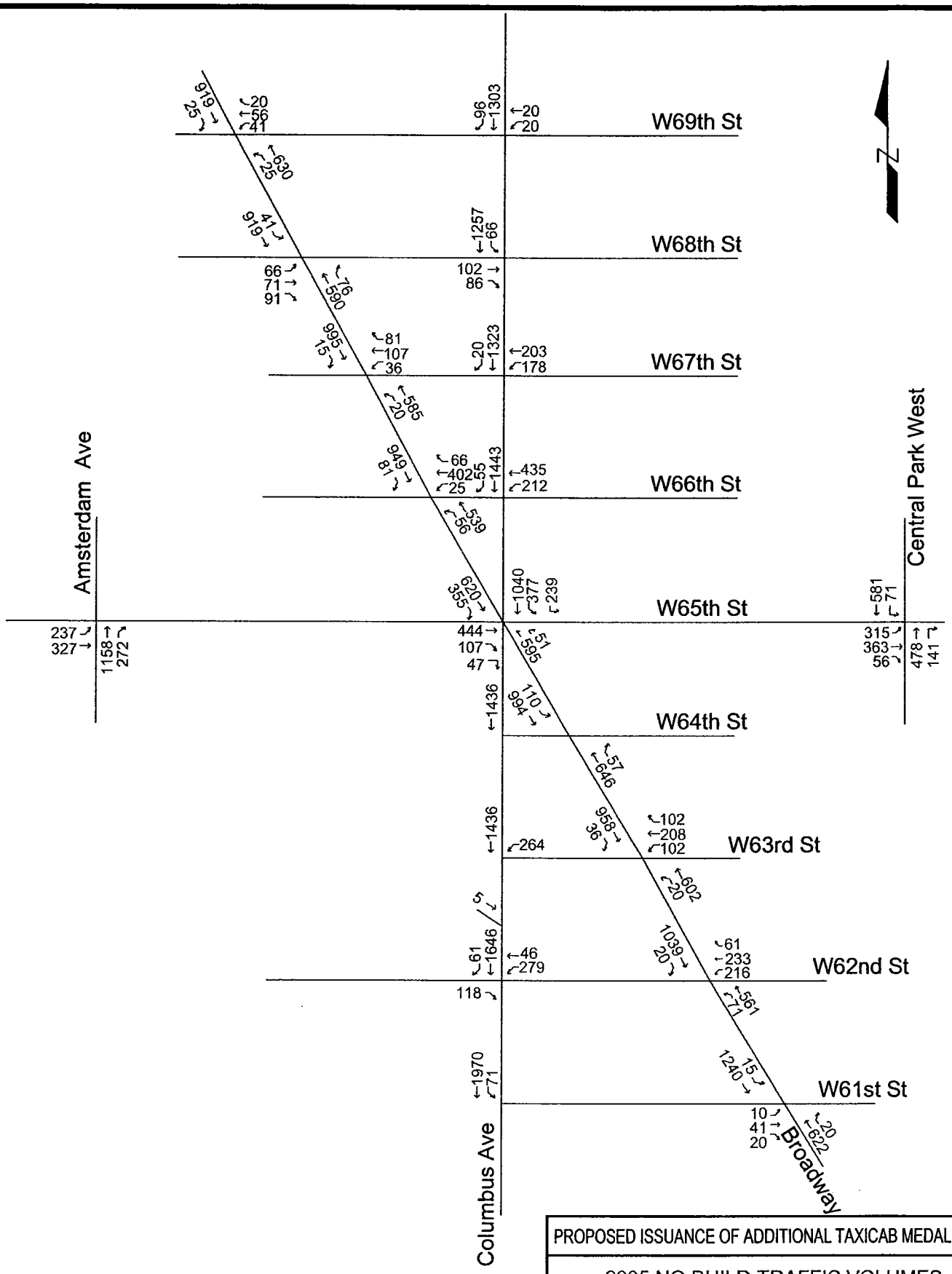


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 NO BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-20

Not to Scale

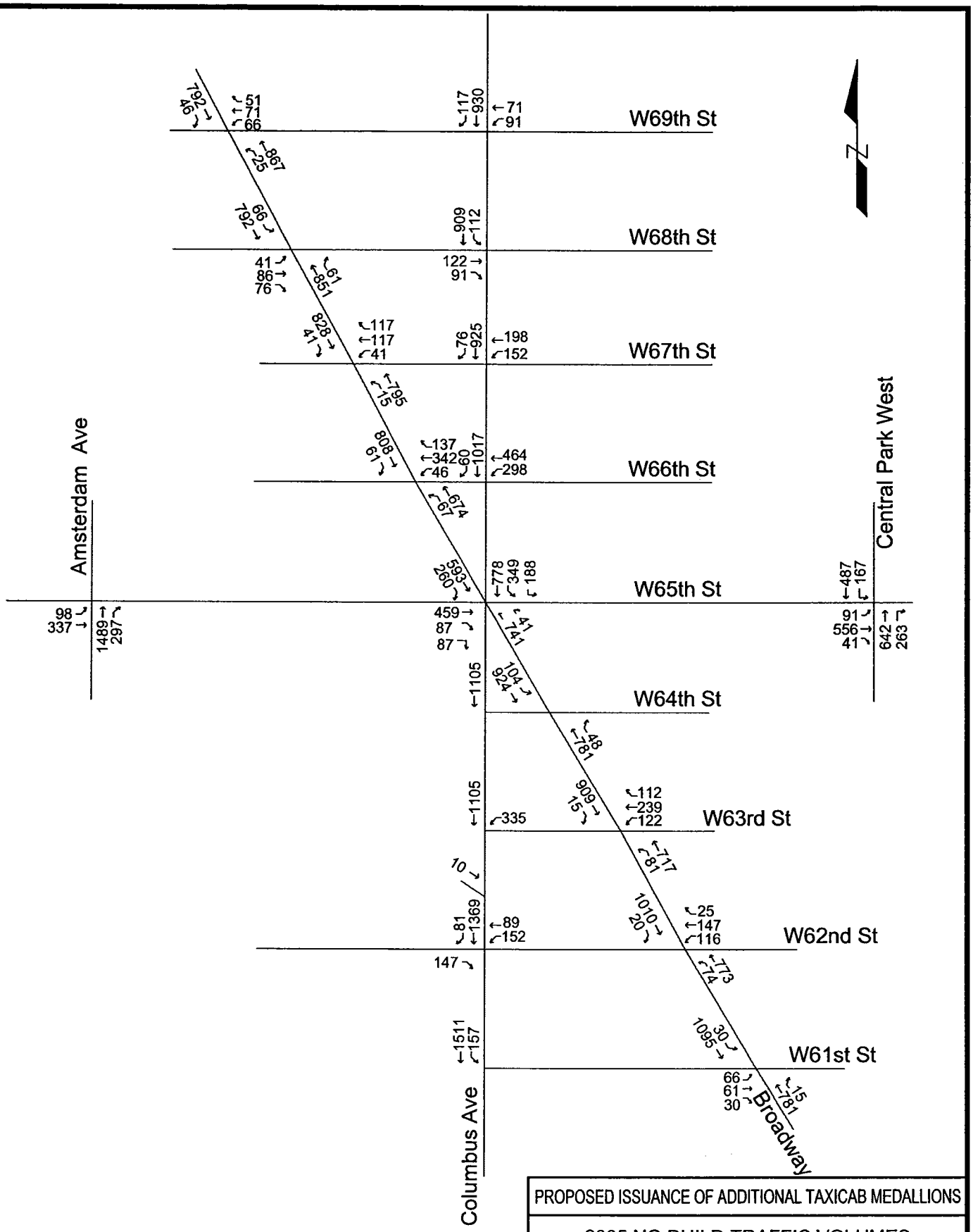


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 NO BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-21

Not to Scale

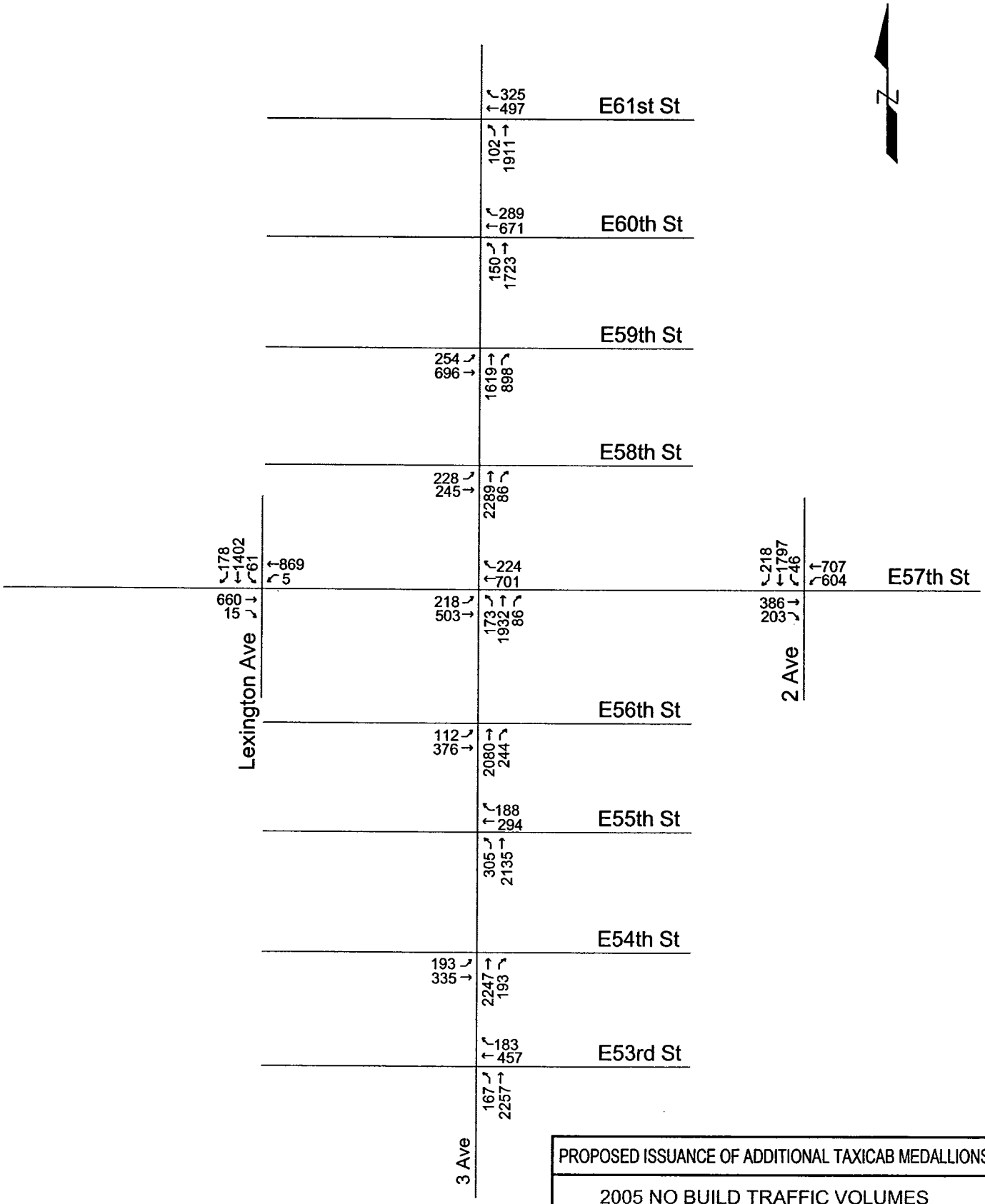


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 NO BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-22

Not to Scale

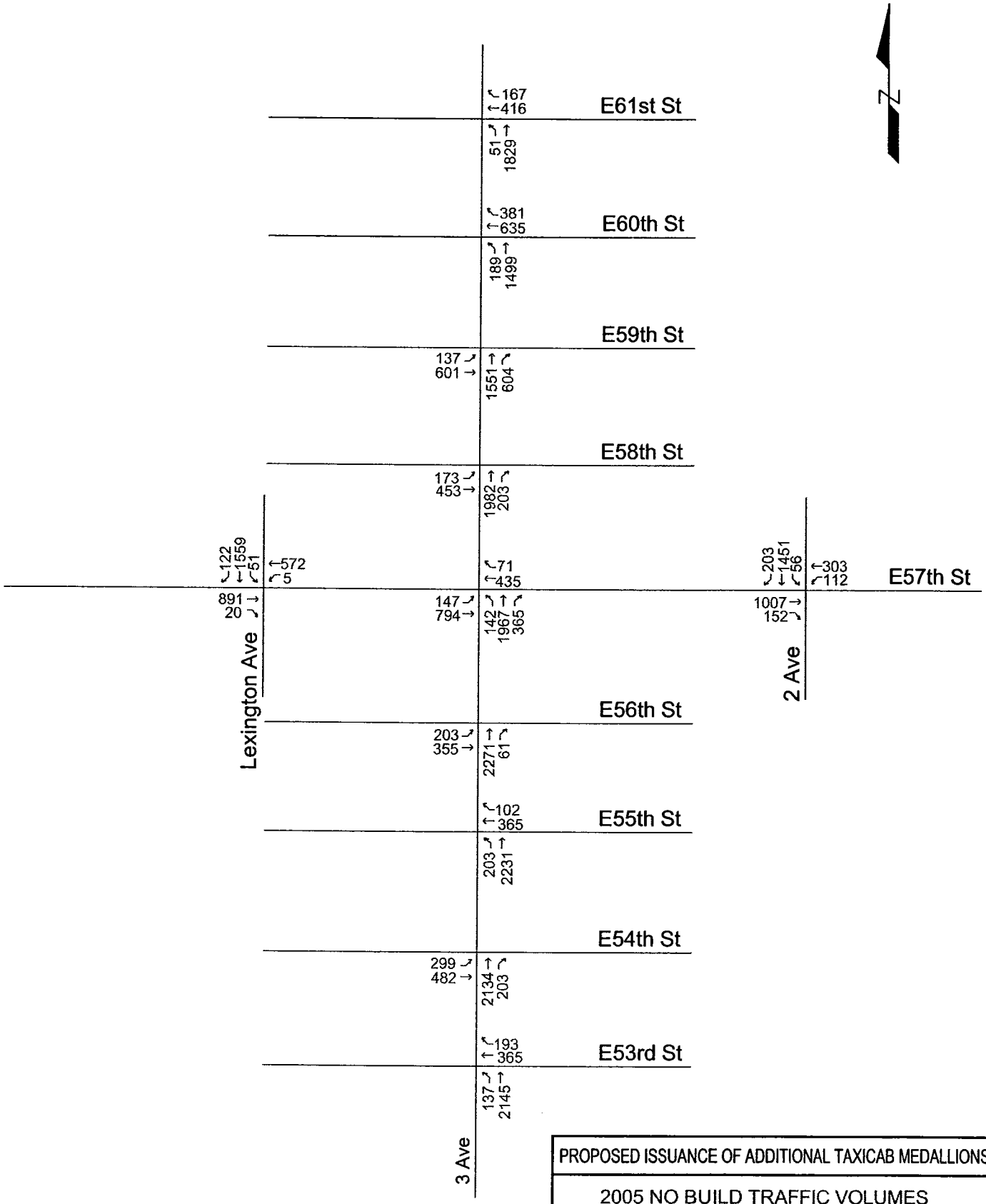


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 NO BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-23

Not to Scale

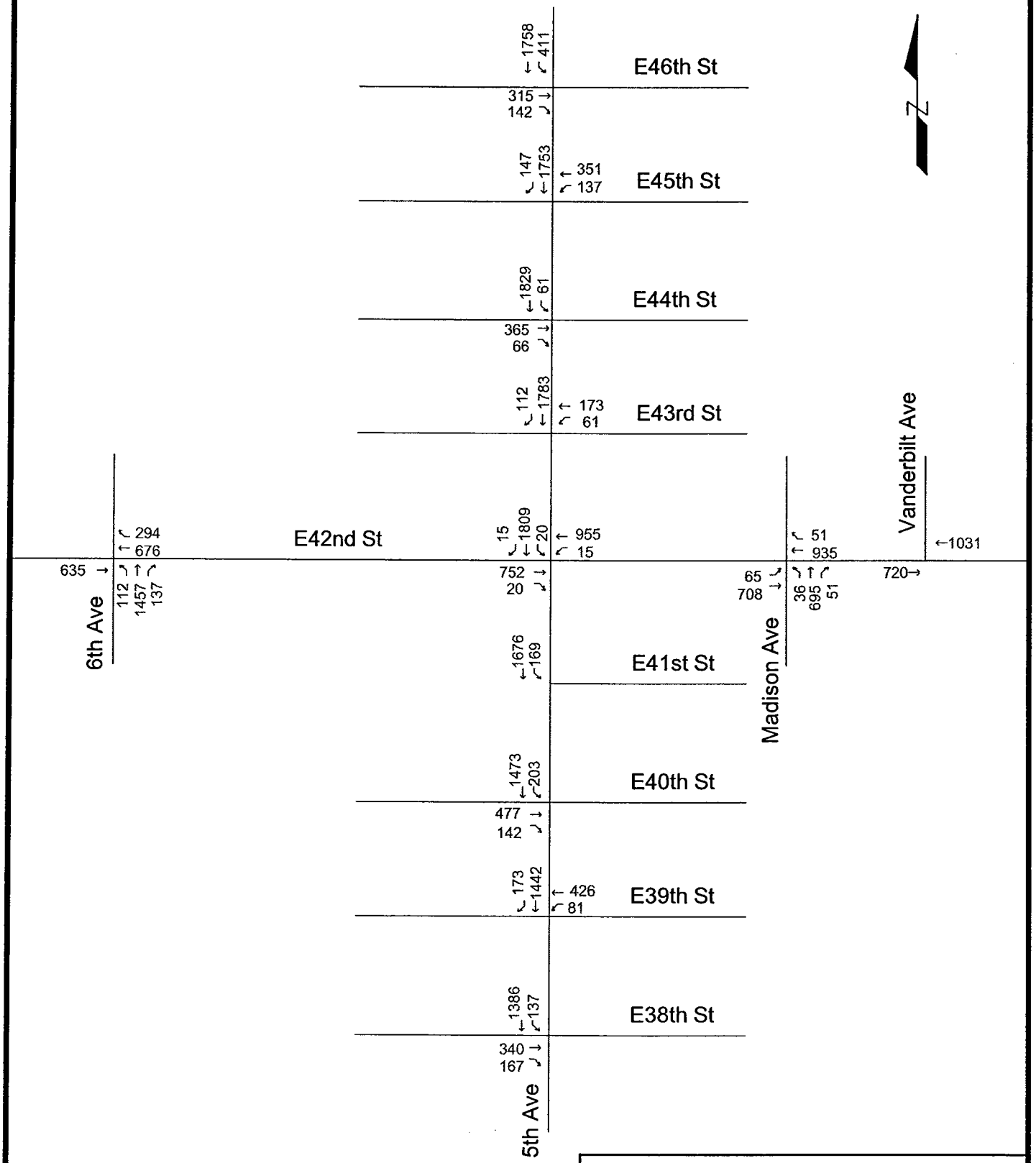


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 NO BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-24

Not to Scale

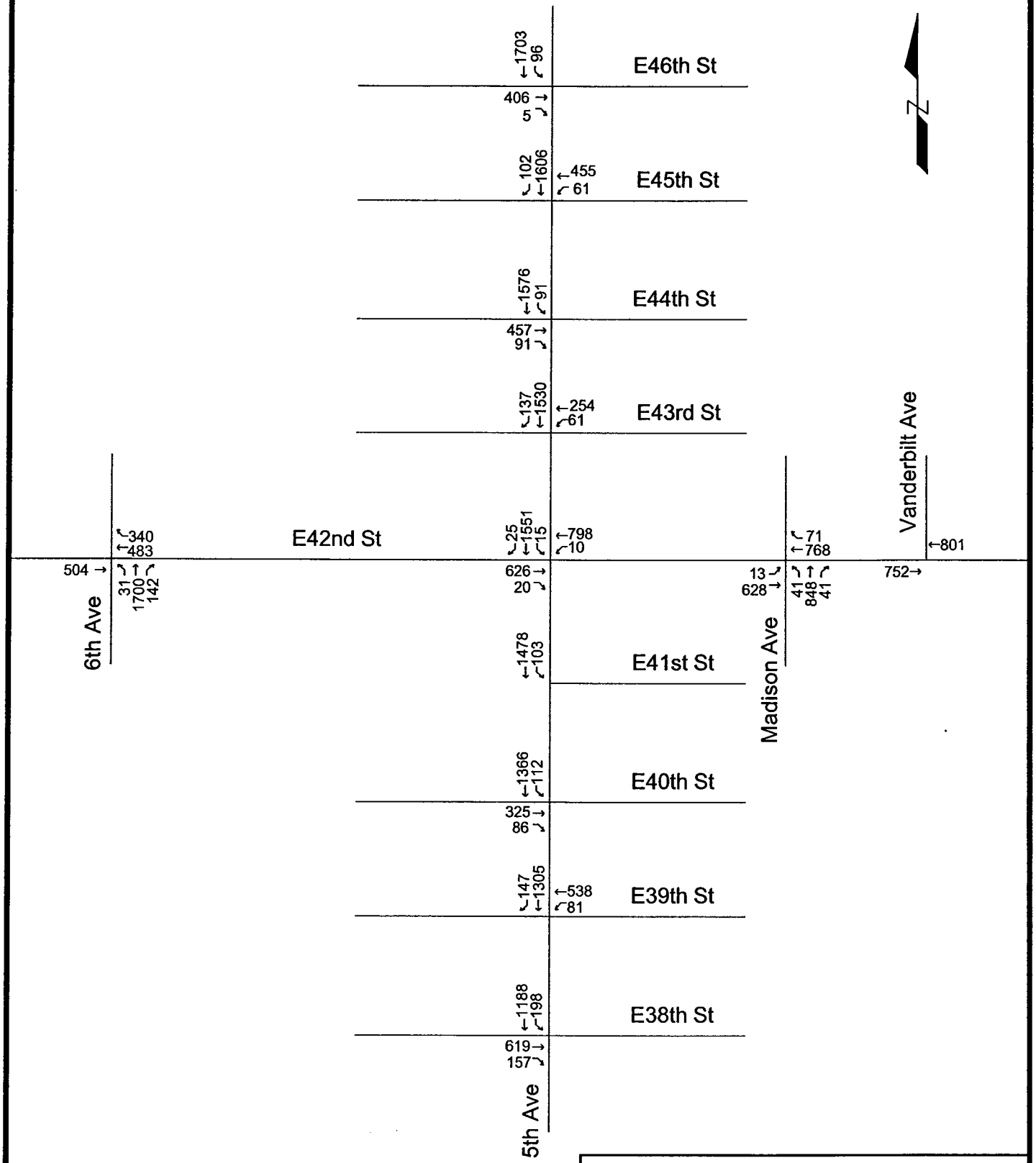


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 NO BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-25

Not to Scale

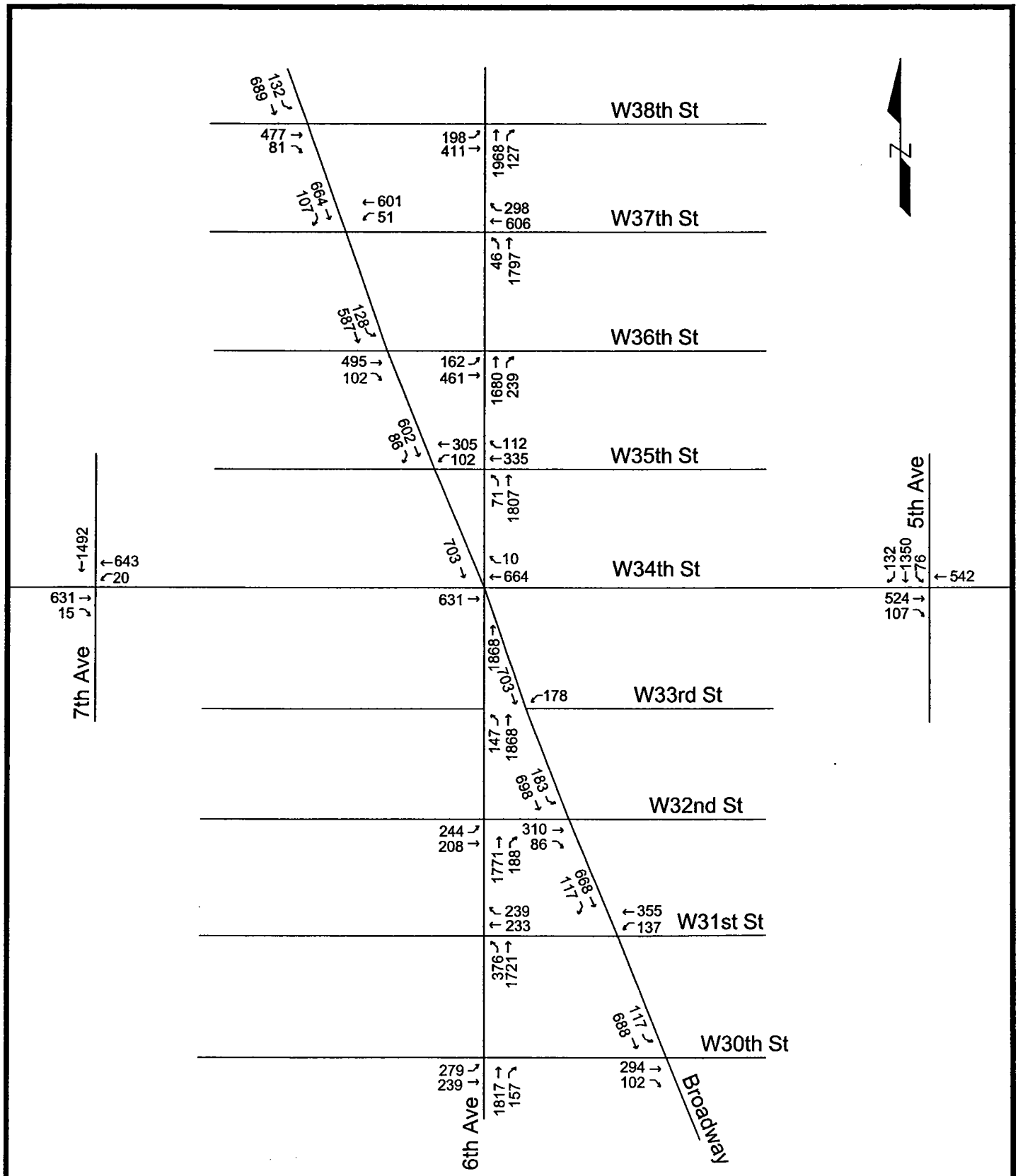


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 NO BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-26

Not to Scale

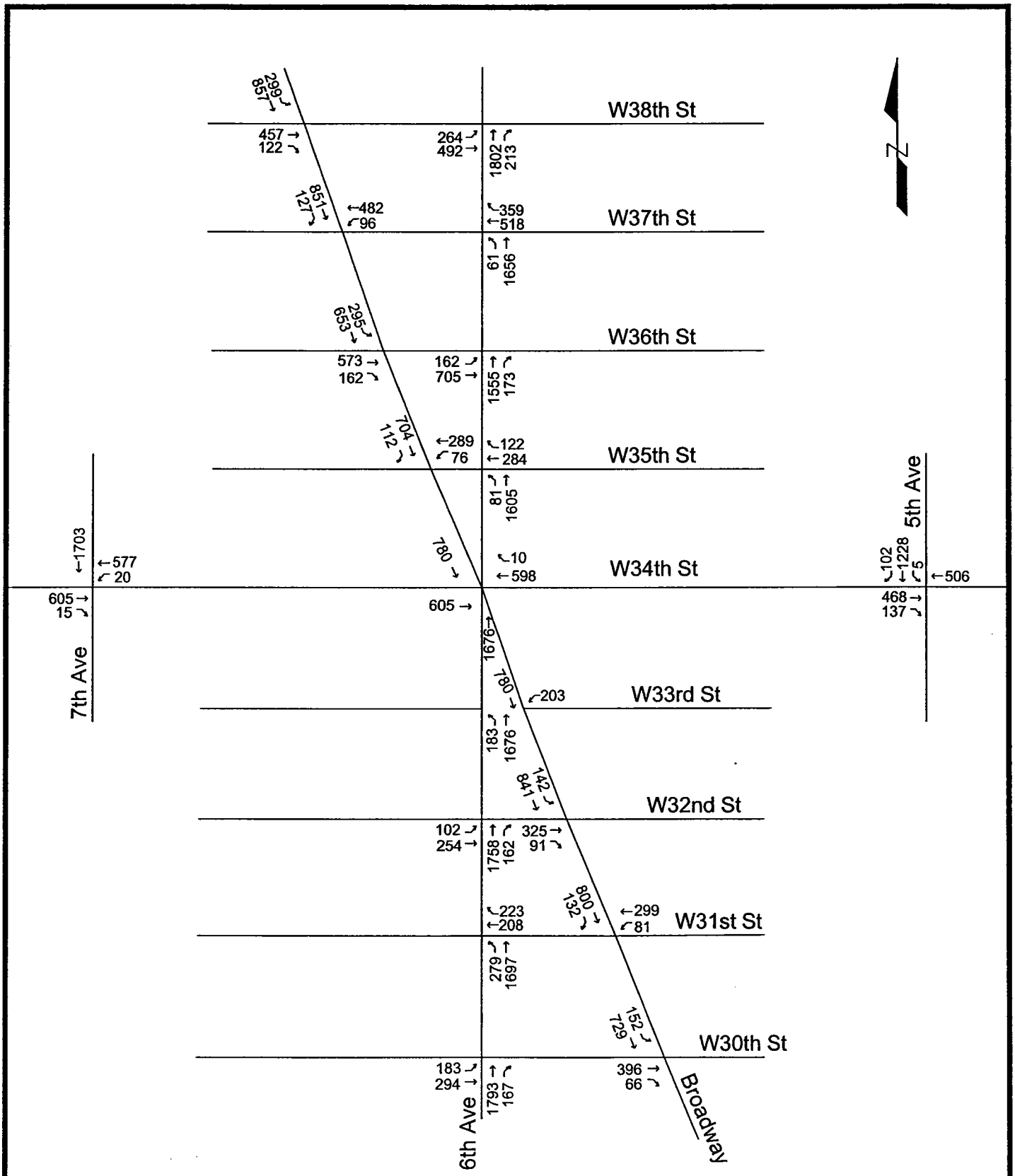


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 NO BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-27

Not to Scale

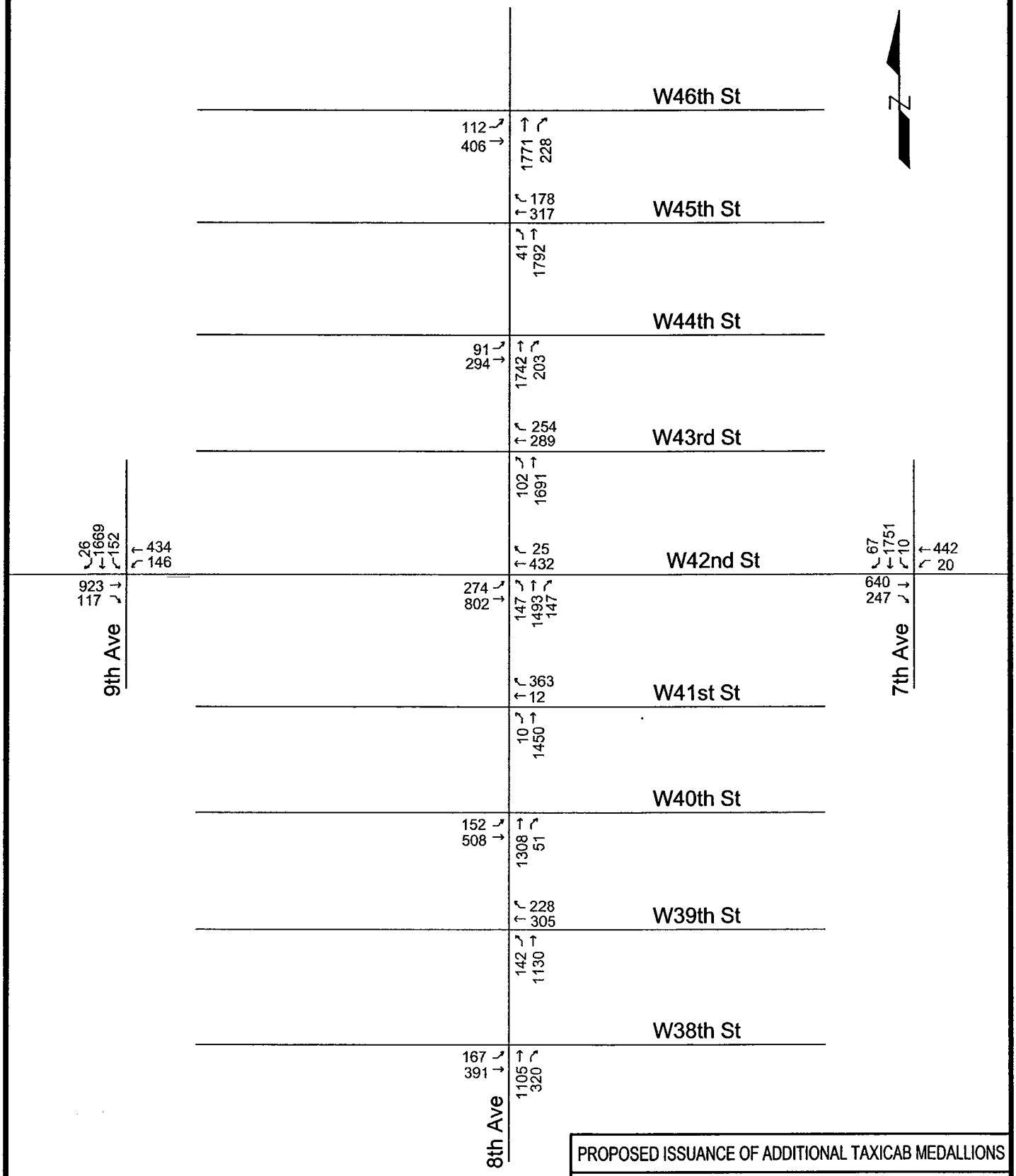


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 NO BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-28

Not to Scale

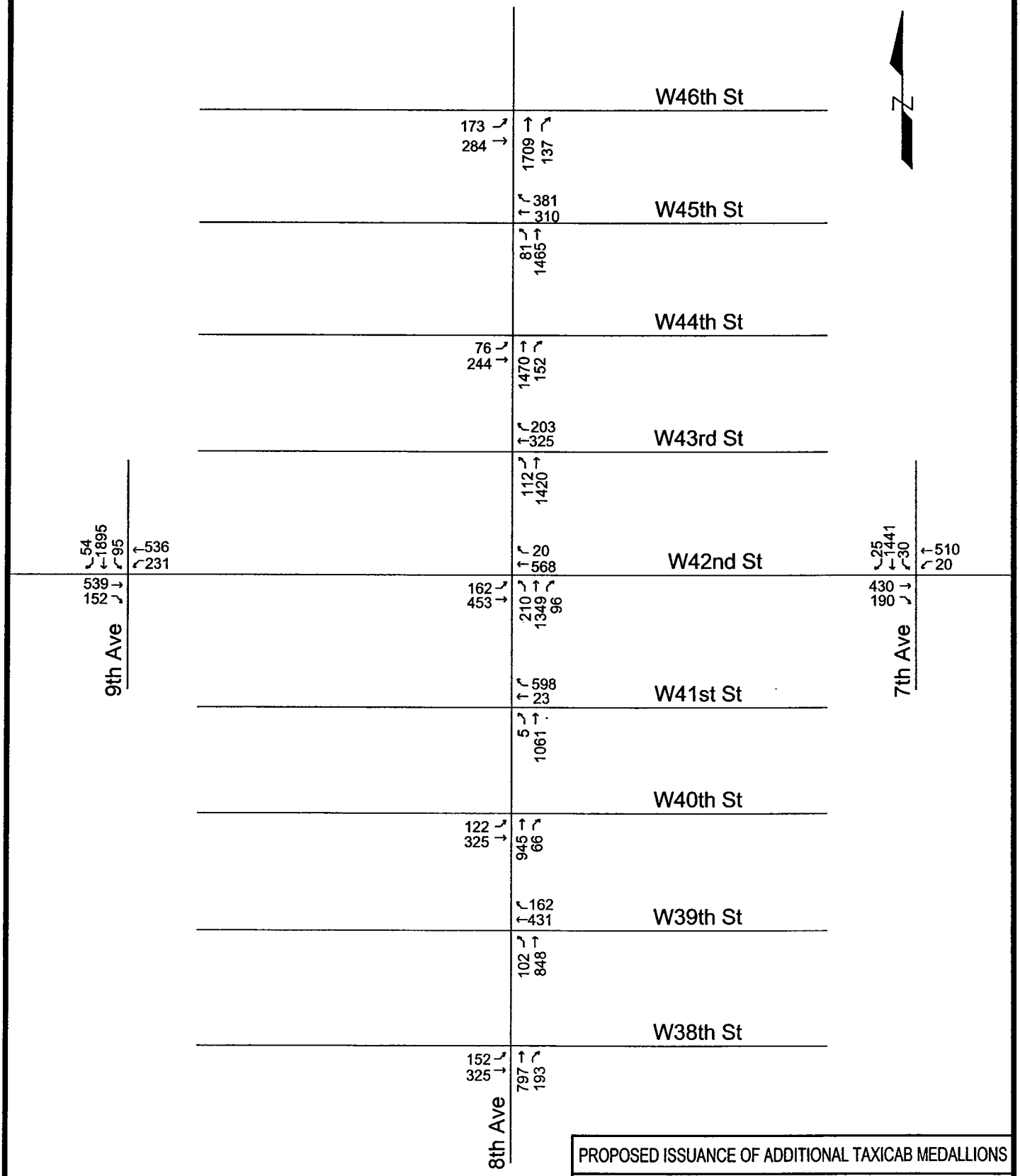


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 NO BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-29

Not to Scale

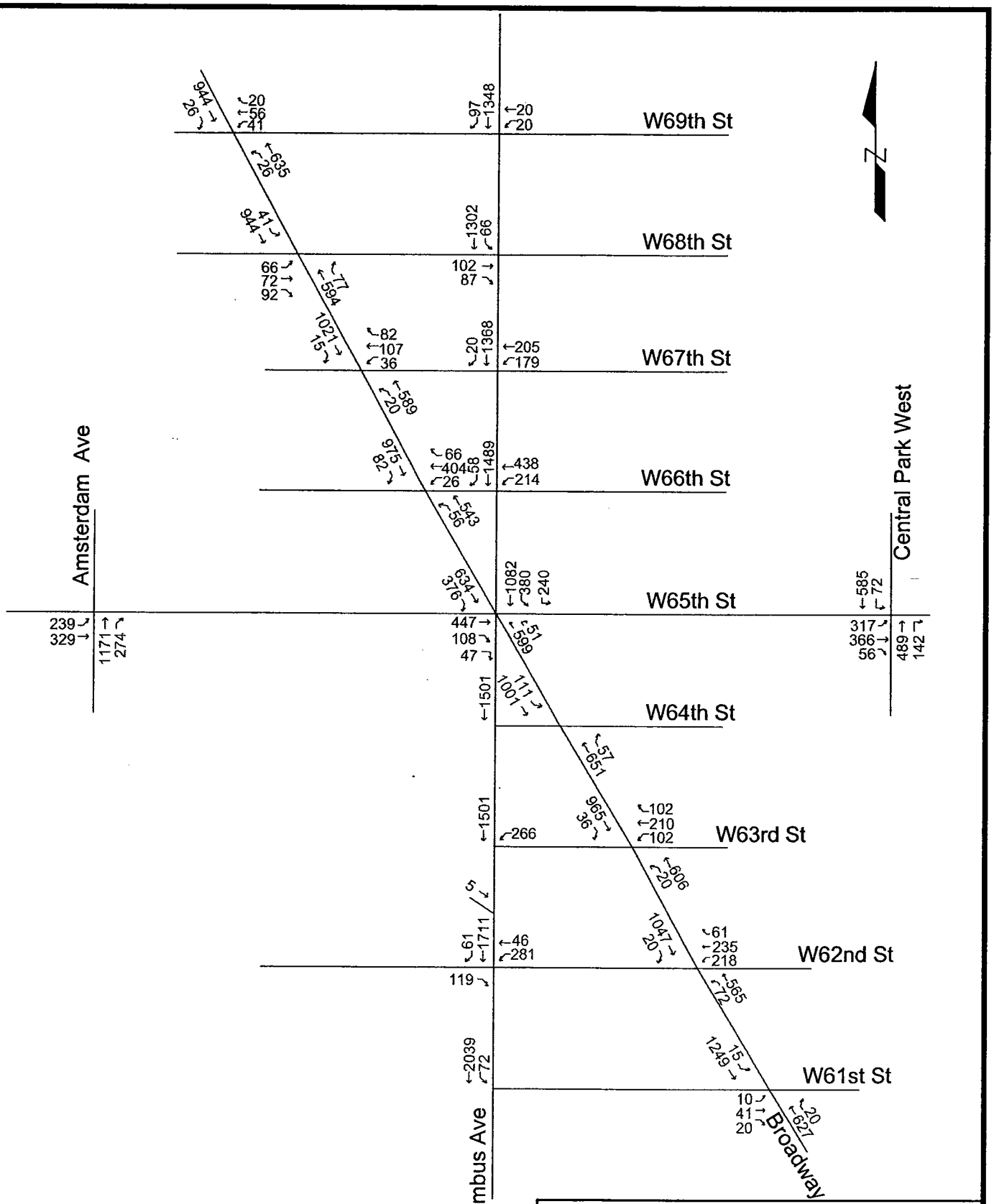


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 NO BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-30

Not to Scale

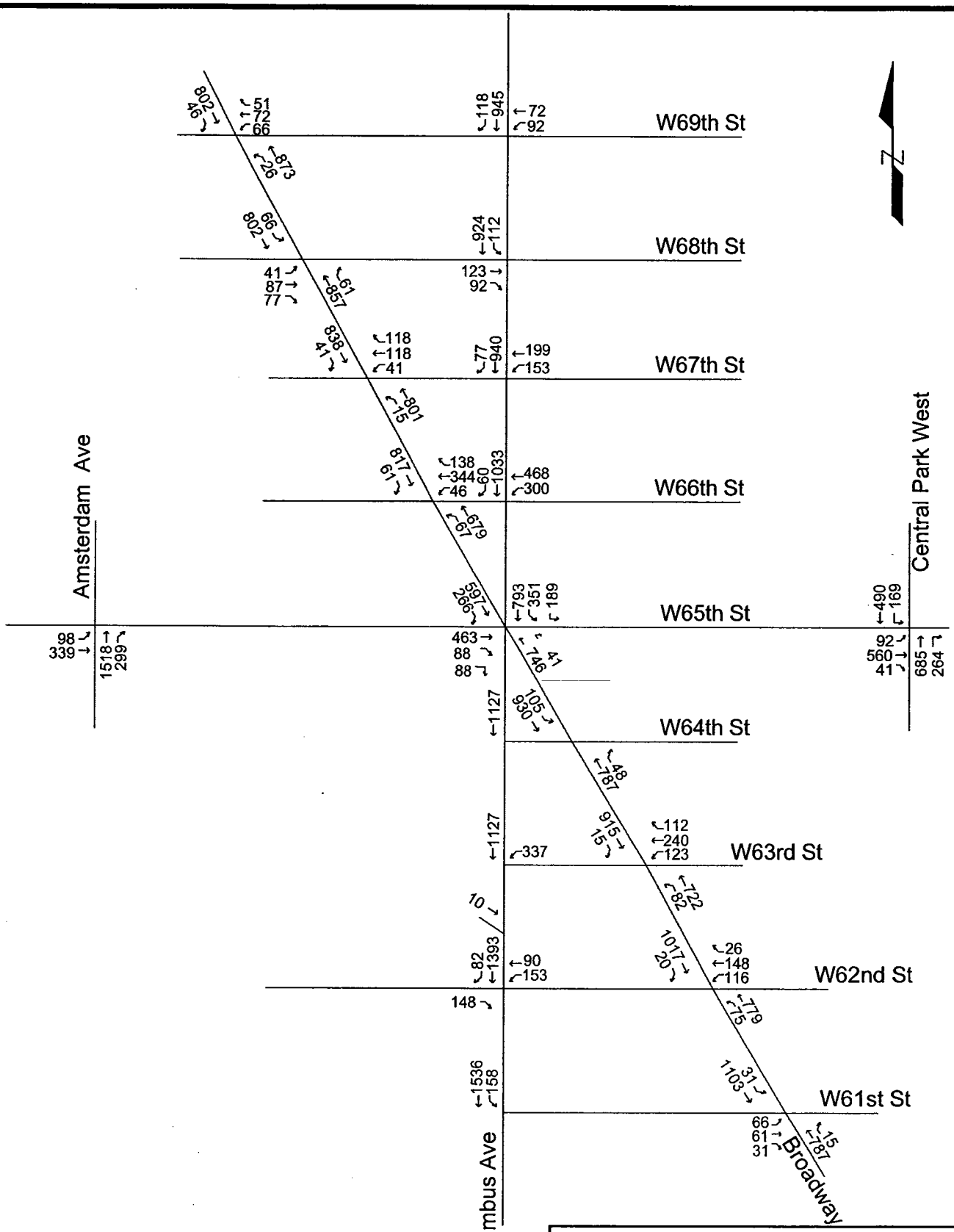


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 NO BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-31

Not to Scale

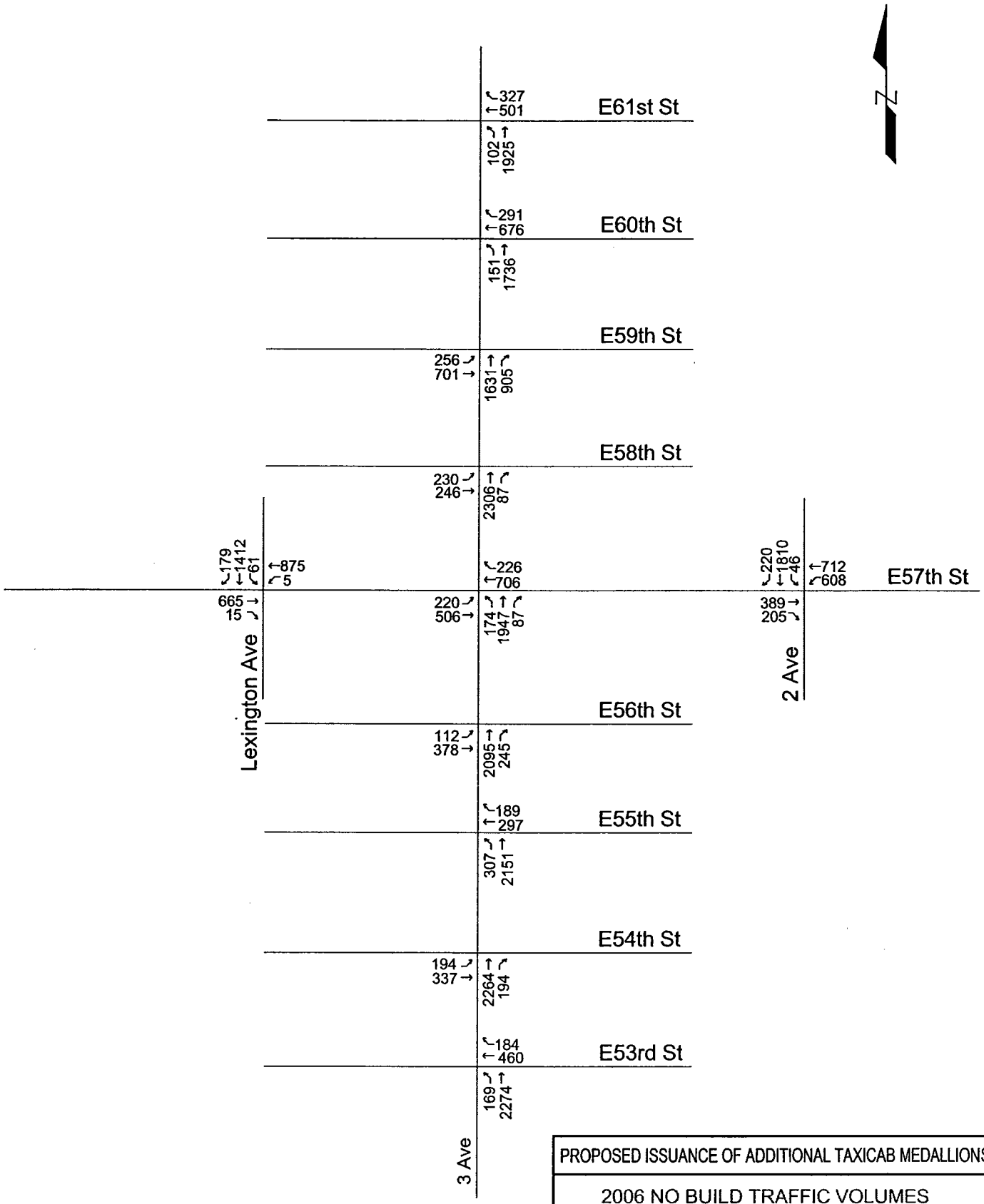


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 NO BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-32

Not to Scale

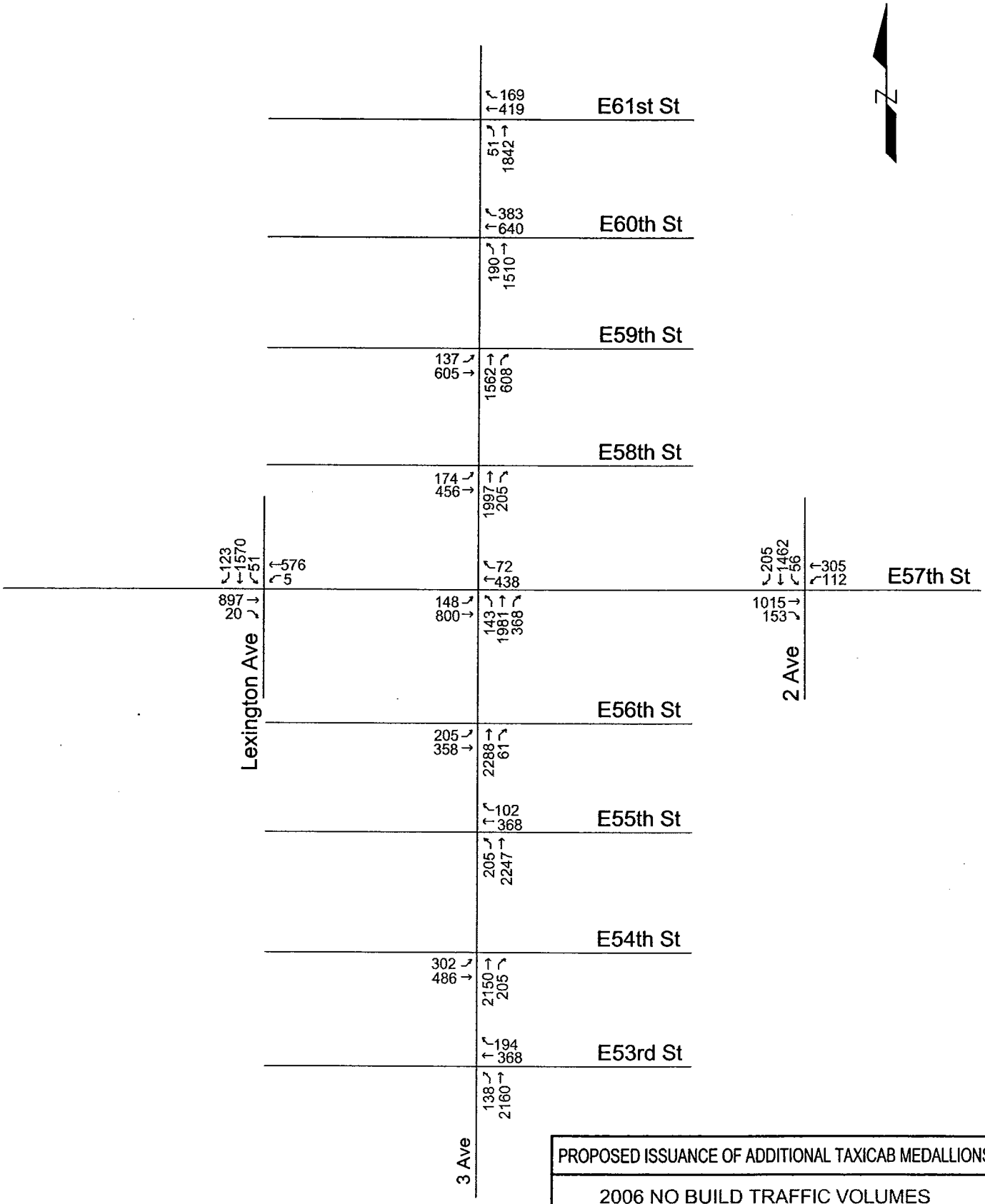


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 NO BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-33

Not to Scale

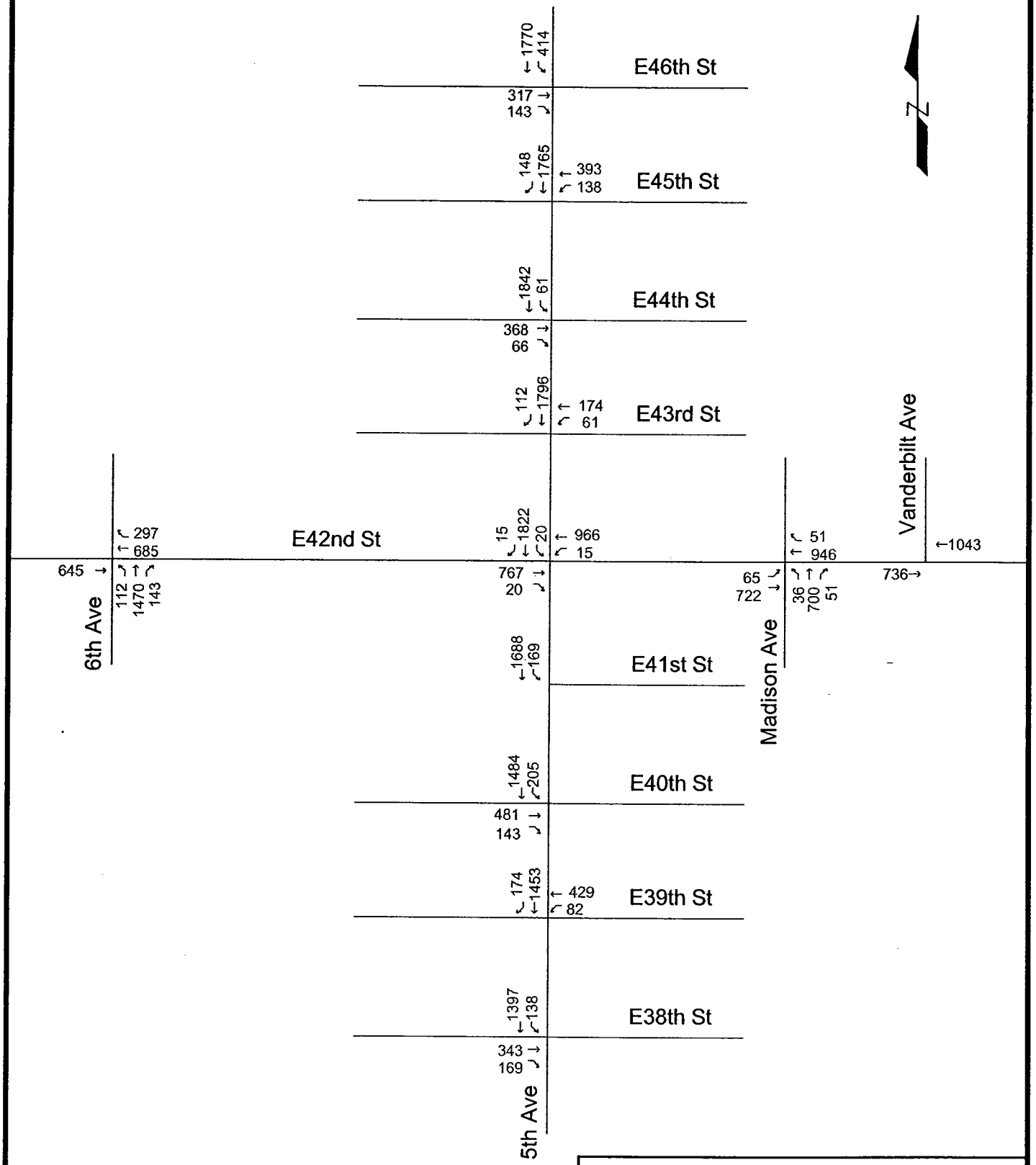


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 NO BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-34

Not to Scale

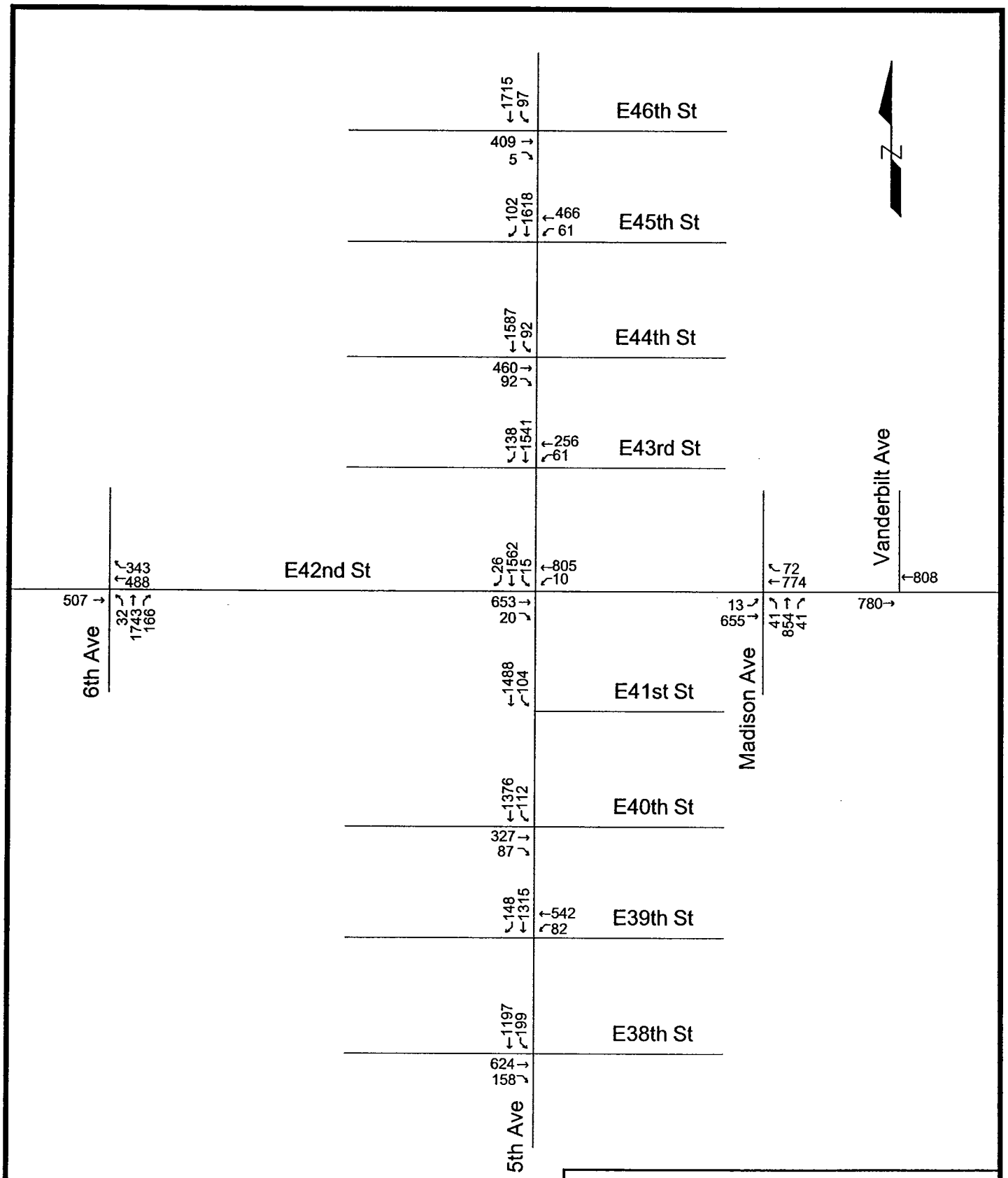


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 NO BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-35

Not to Scale

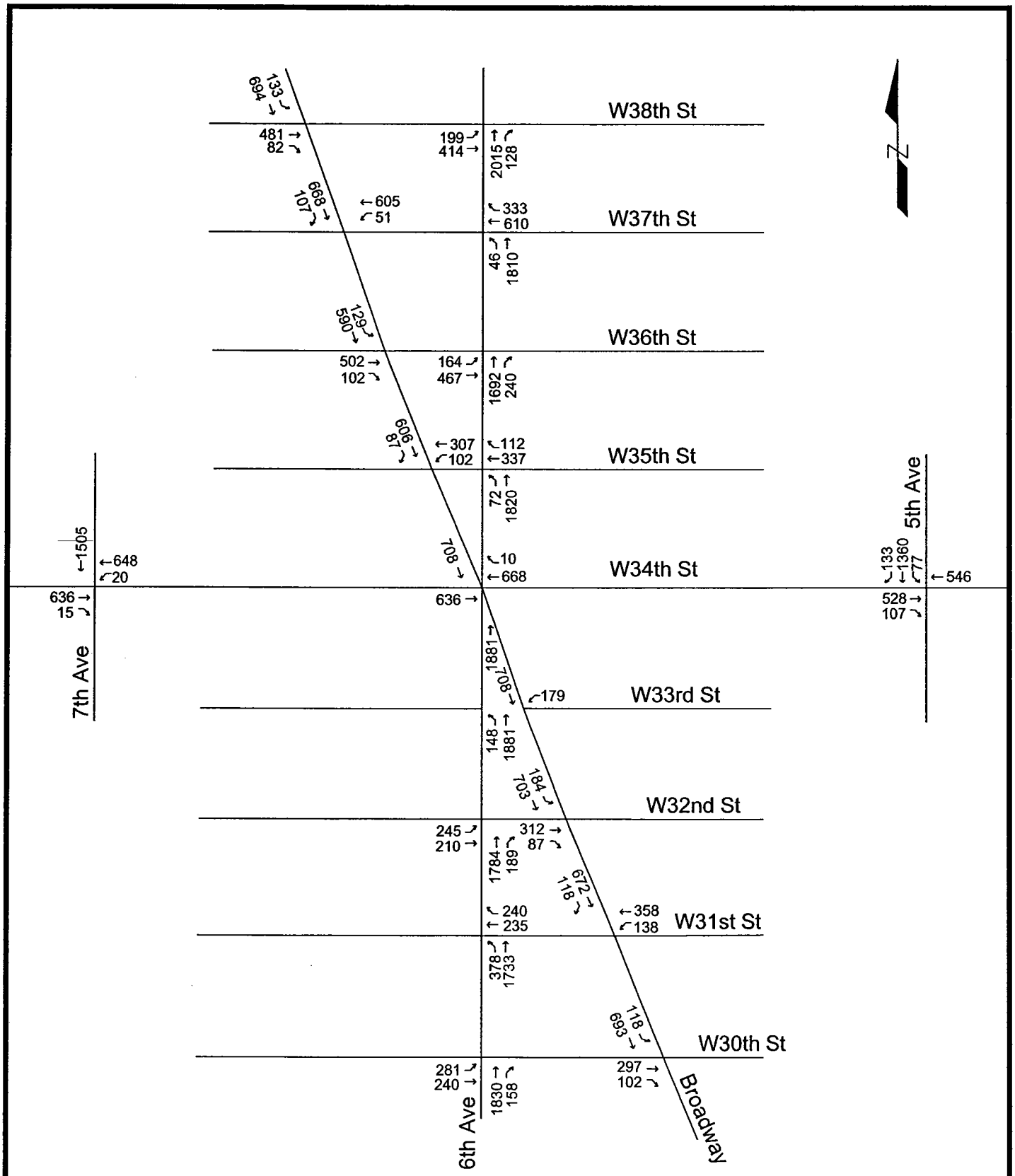


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 NO BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-36

Not to Scale

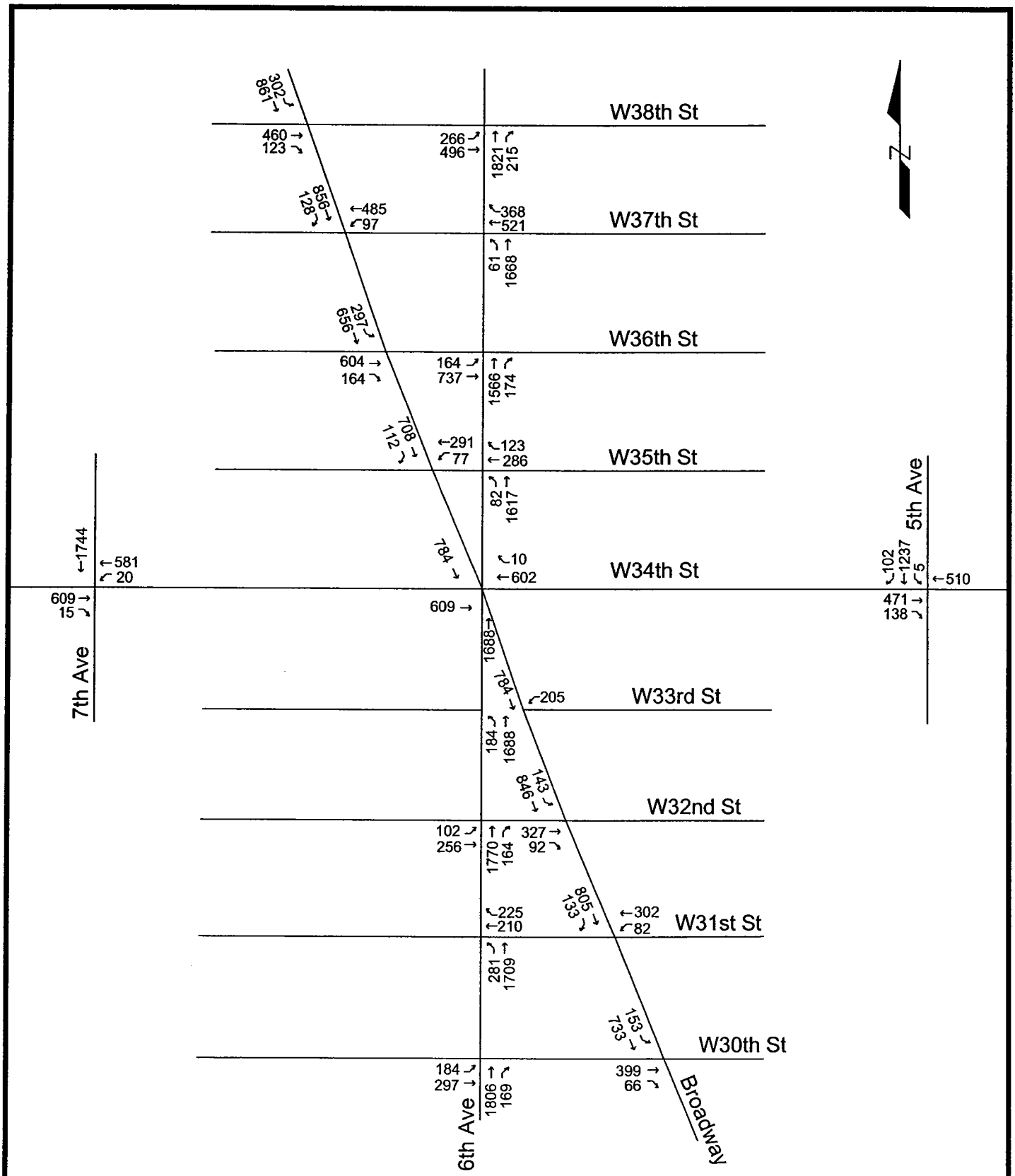


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 NO BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-37

Not to Scale

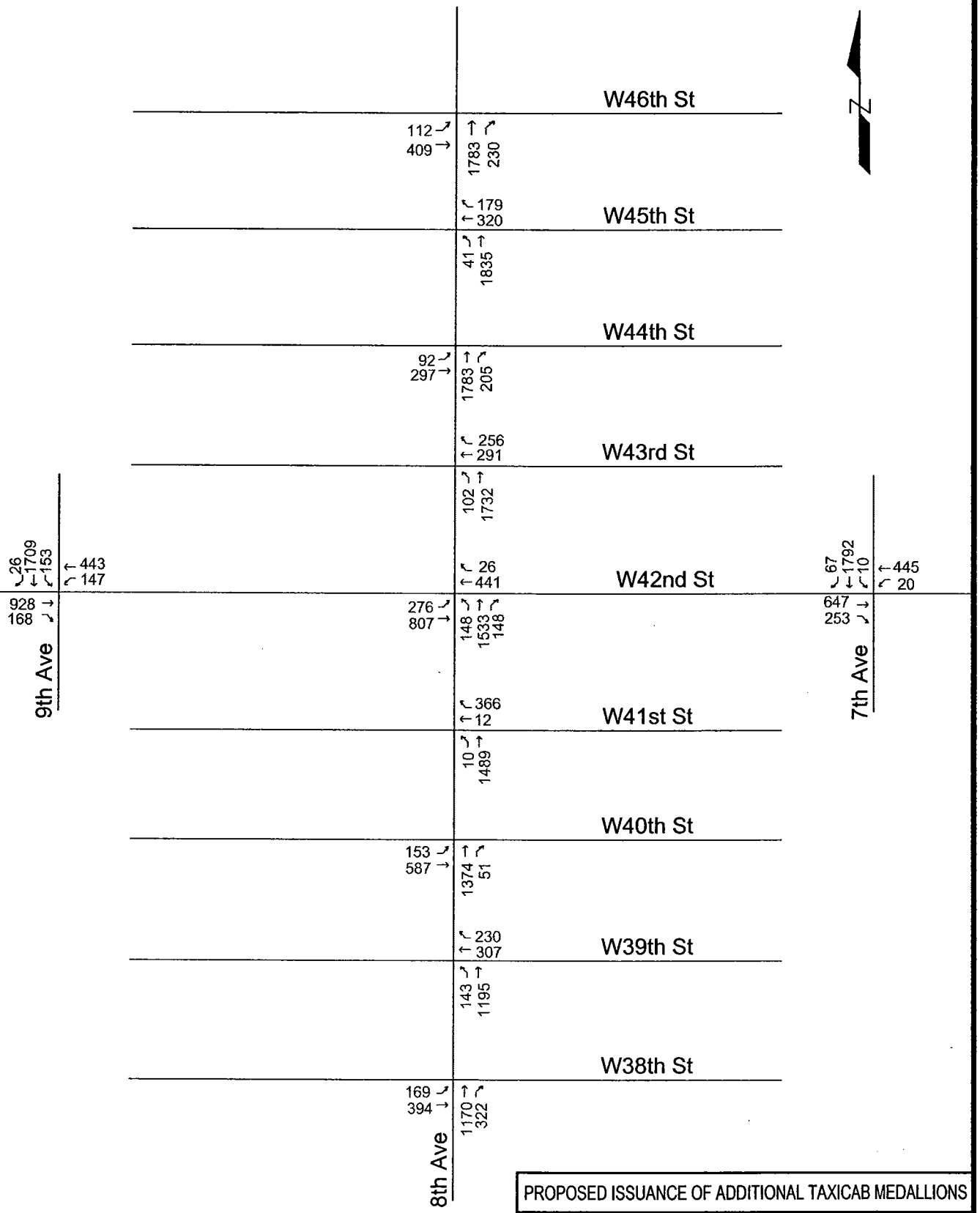


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 NO BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-38

Not to Scale

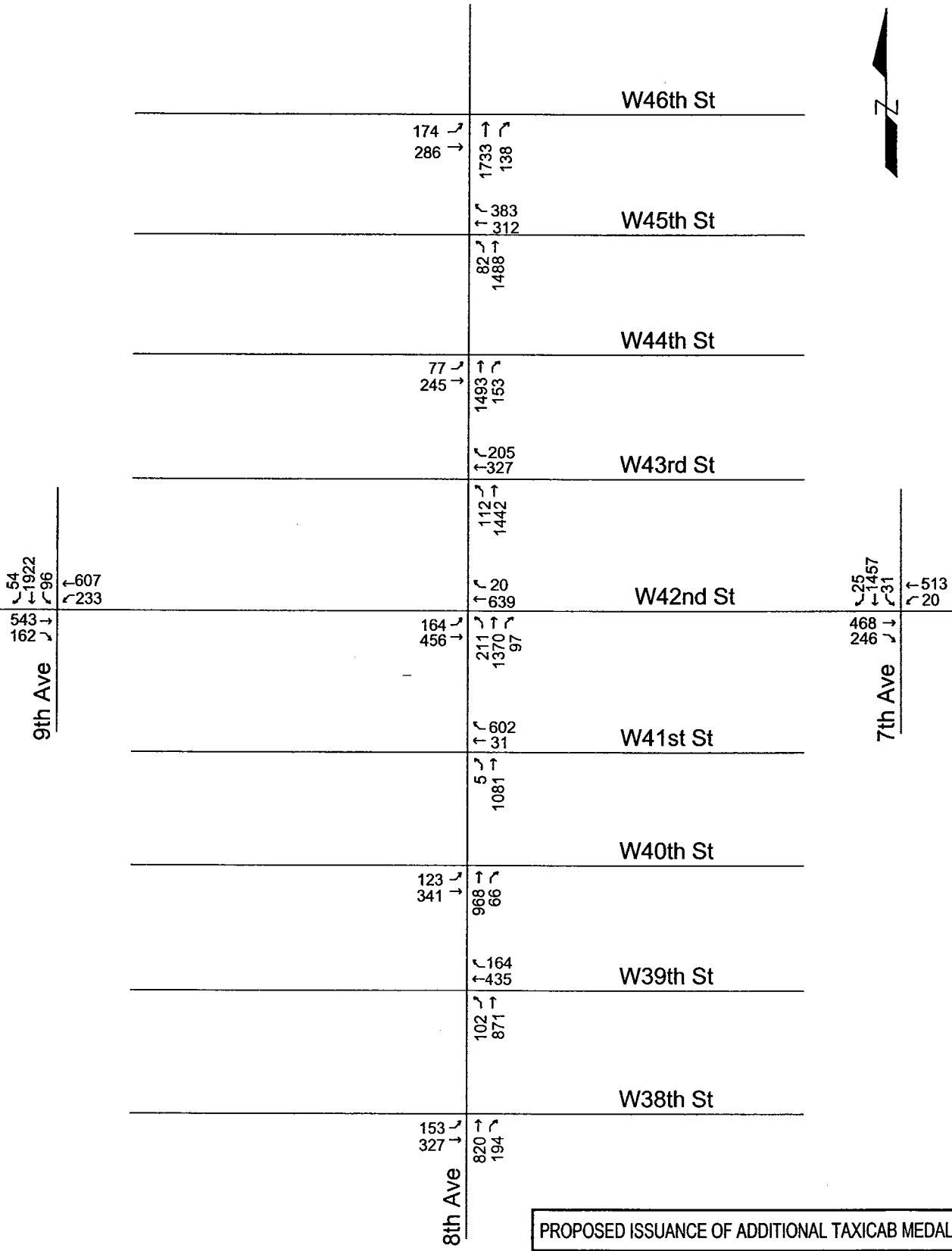


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 NO BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-39

Not to Scale



PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

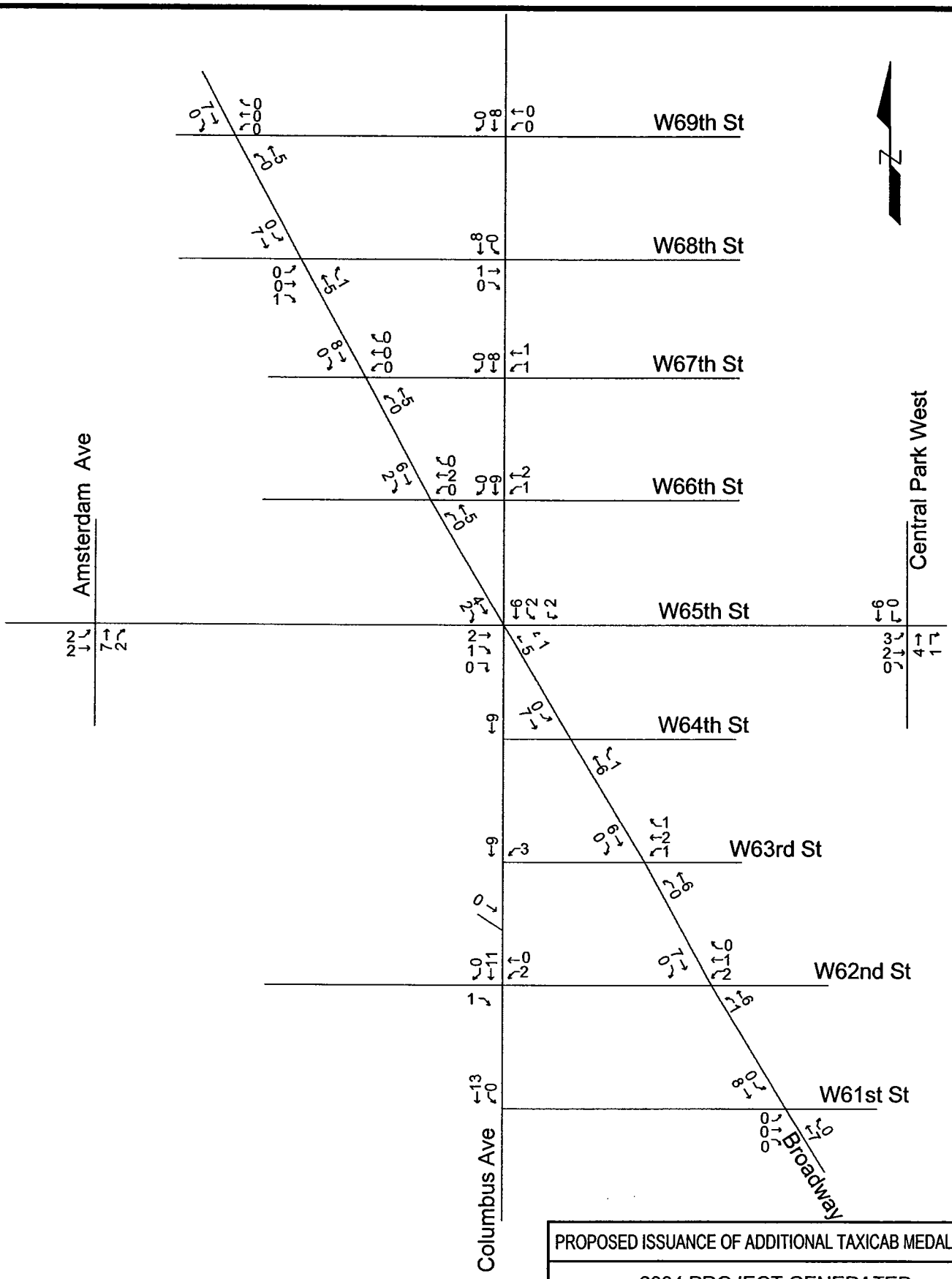
2006 NO BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-40

Not to Scale

Project-Generated Traffic Flow Maps

2004, 2005, and 2006 Horizon Years

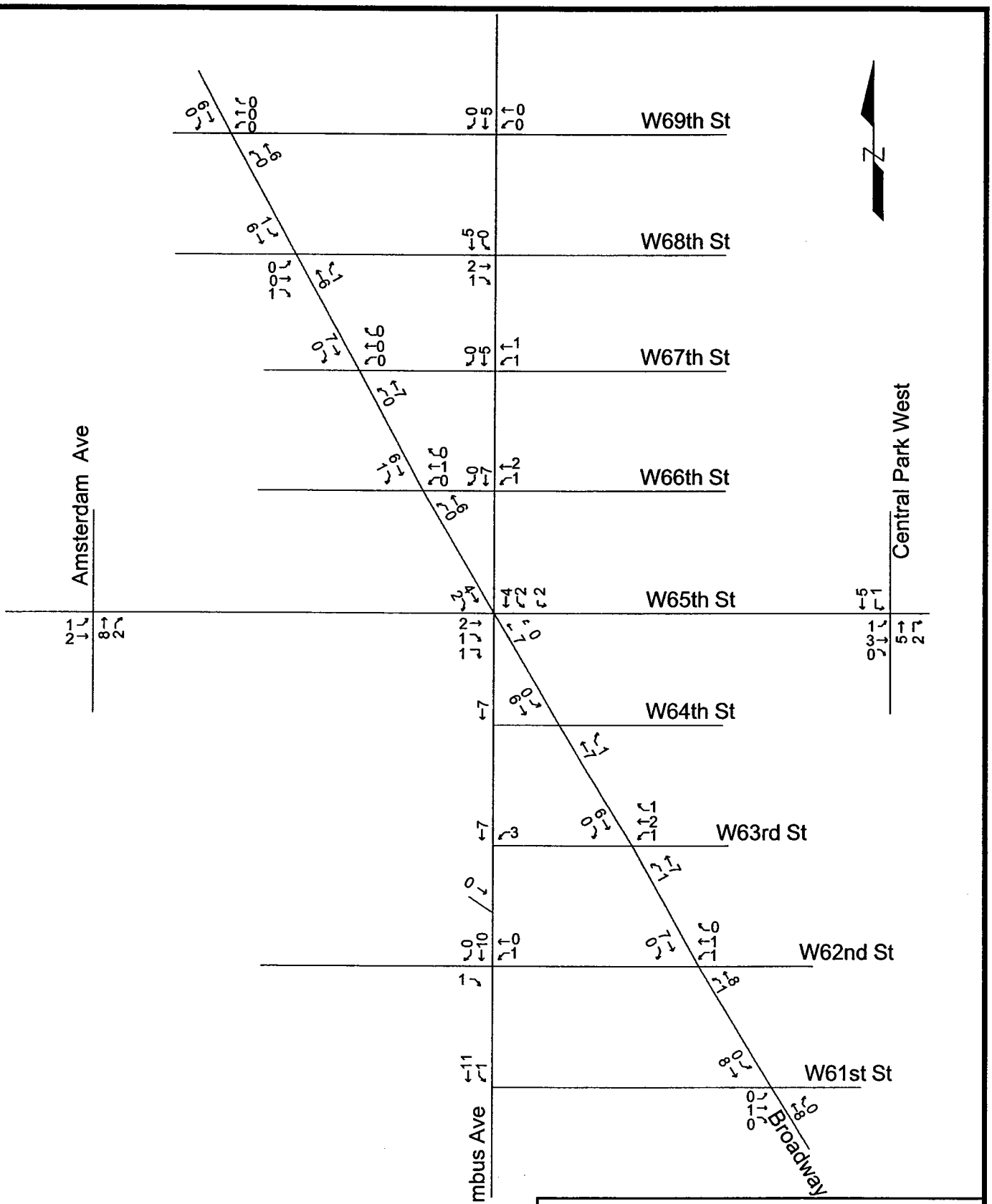


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 PROJECT GENERATED
TRAFFIC VOLUMES
AM PEAK HOUR (7:45-8:45 AM)

Figure: A-41

Not to Scale

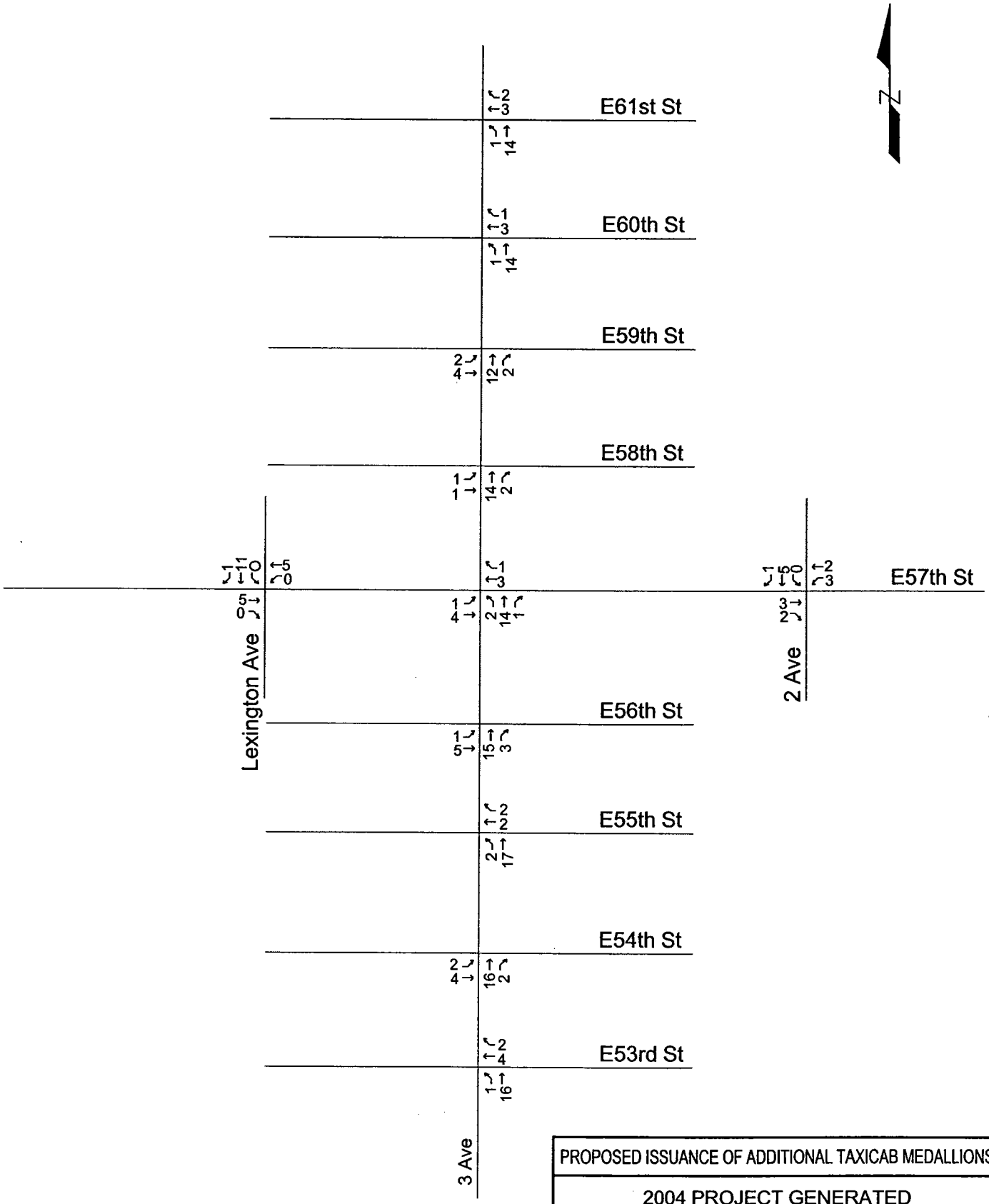


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 PROJECT GENERATED
TRAFFIC VOLUMES
PM PEAK HOUR (5:00-6:00 PM)

Figure: A-42

Not to Scale

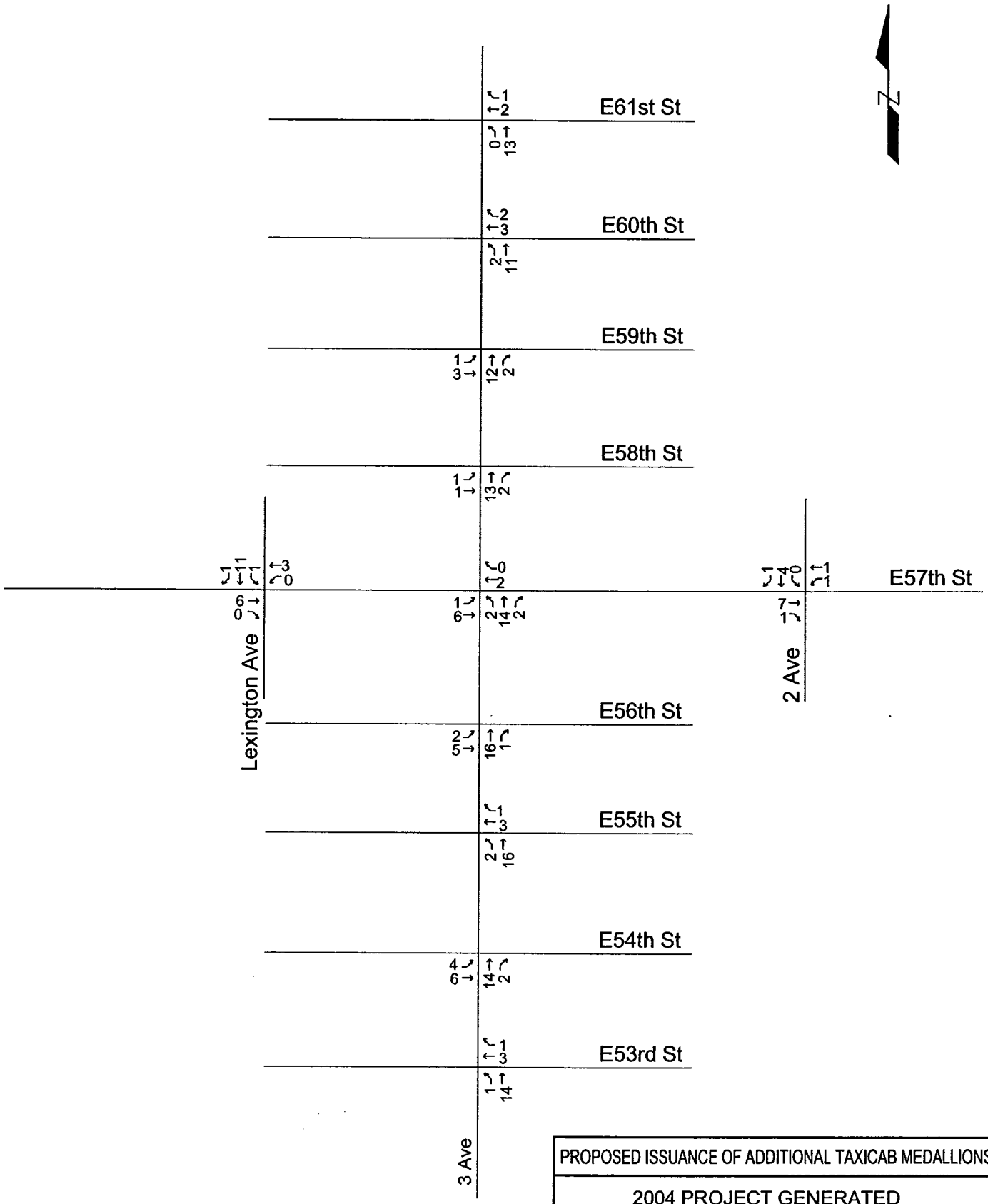


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-43

Not to Scale

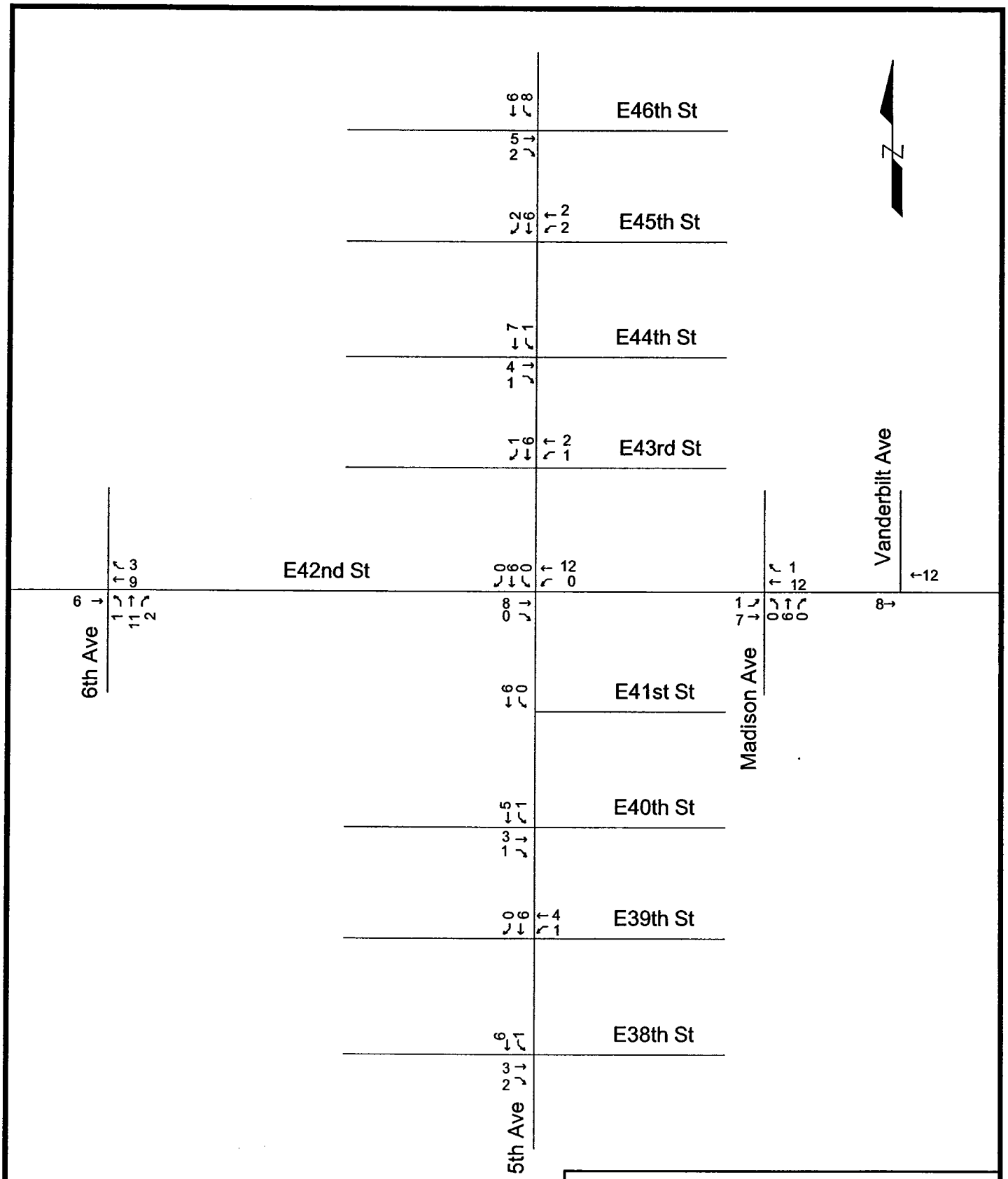


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-44

Not to Scale

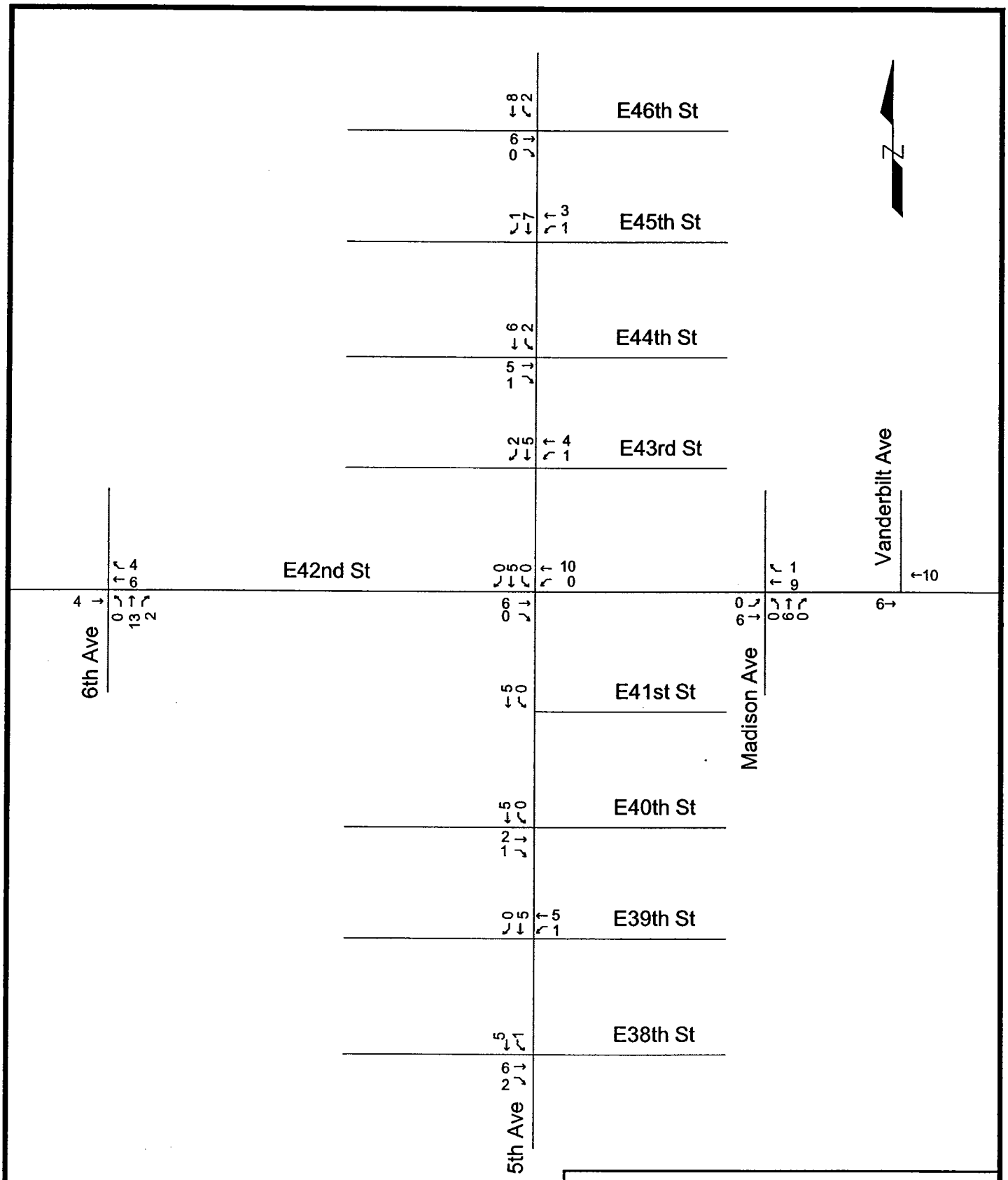


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-45

Not to Scale

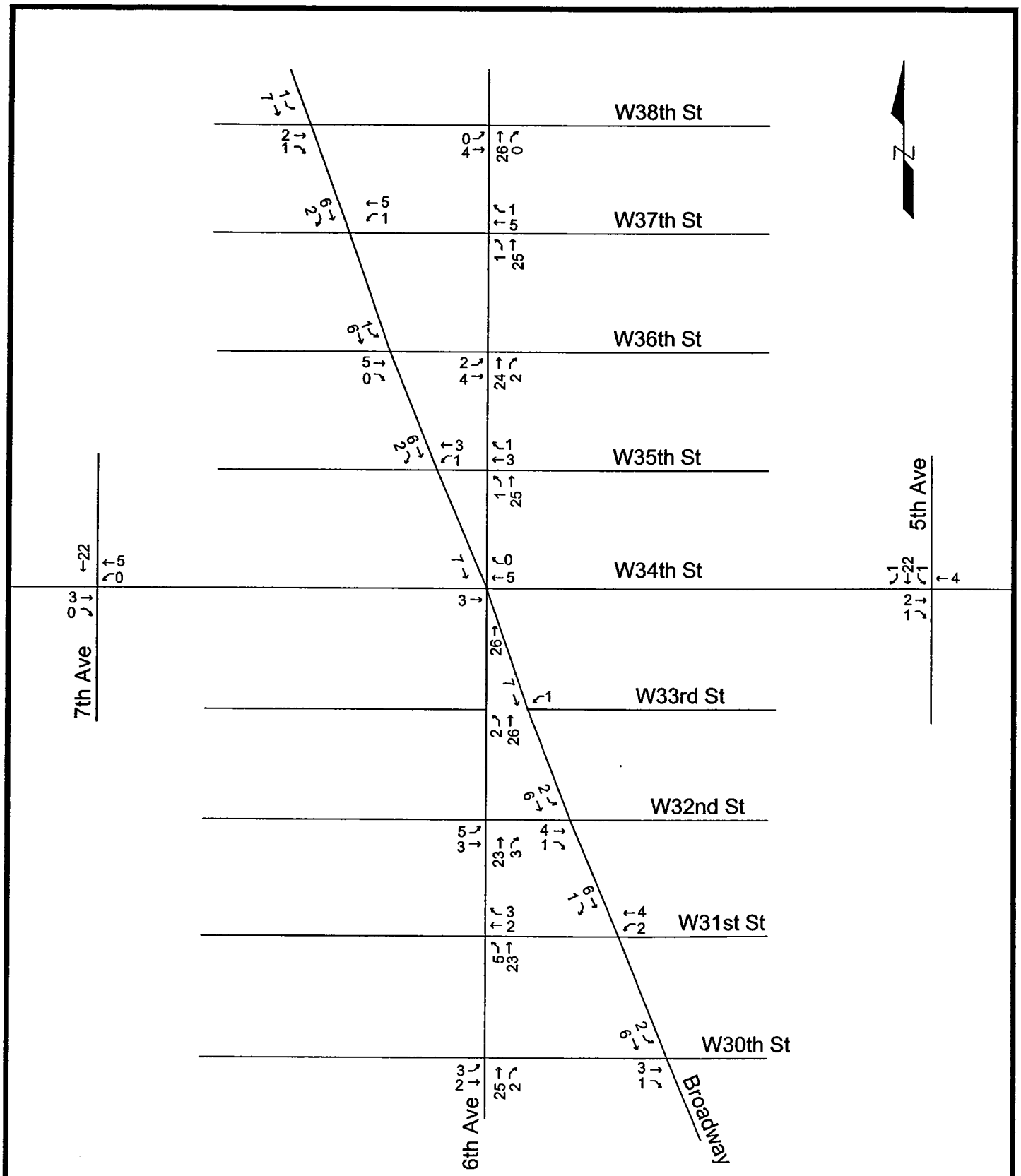


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-46

Not to Scale

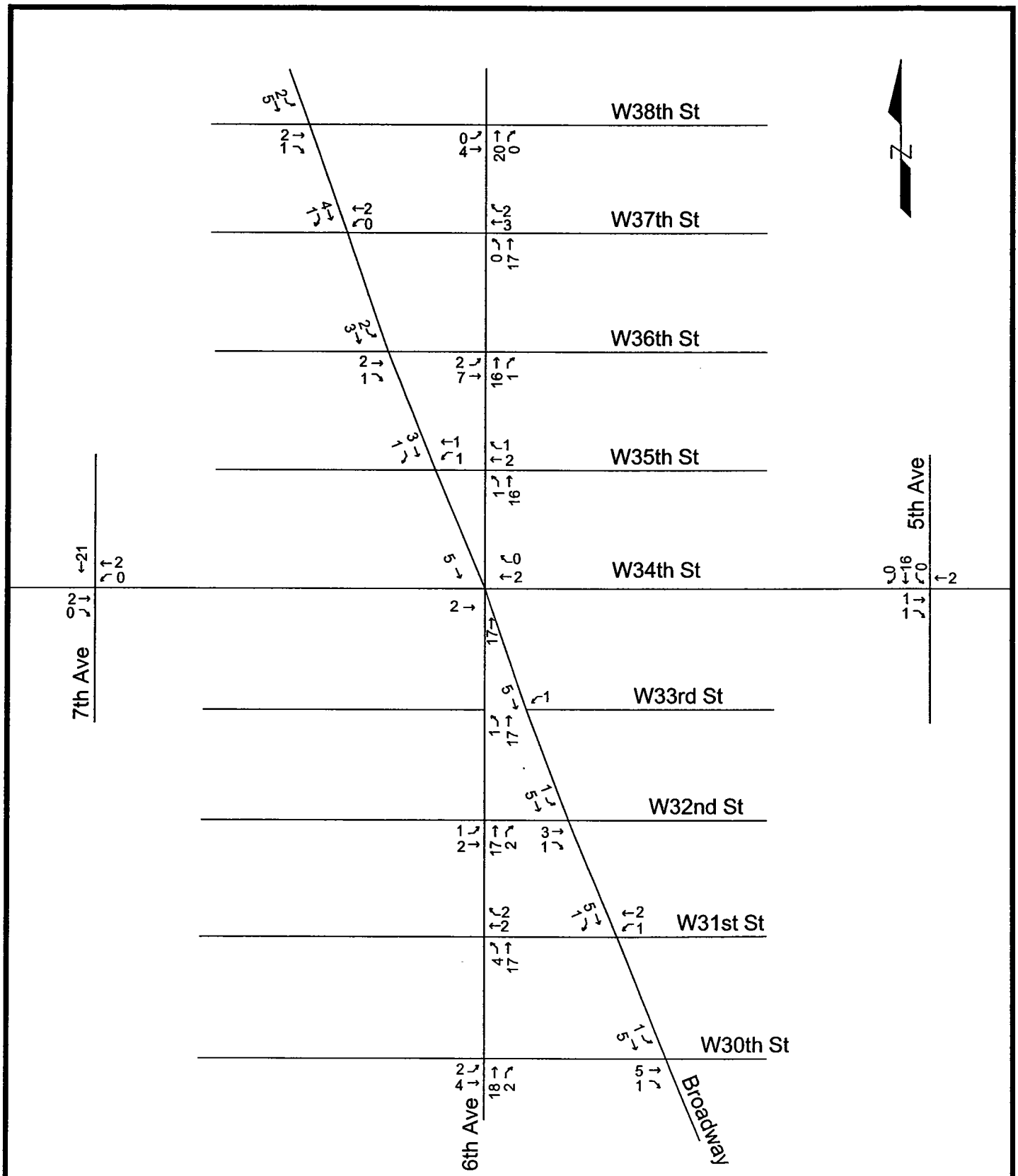


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-47

Not to Scale

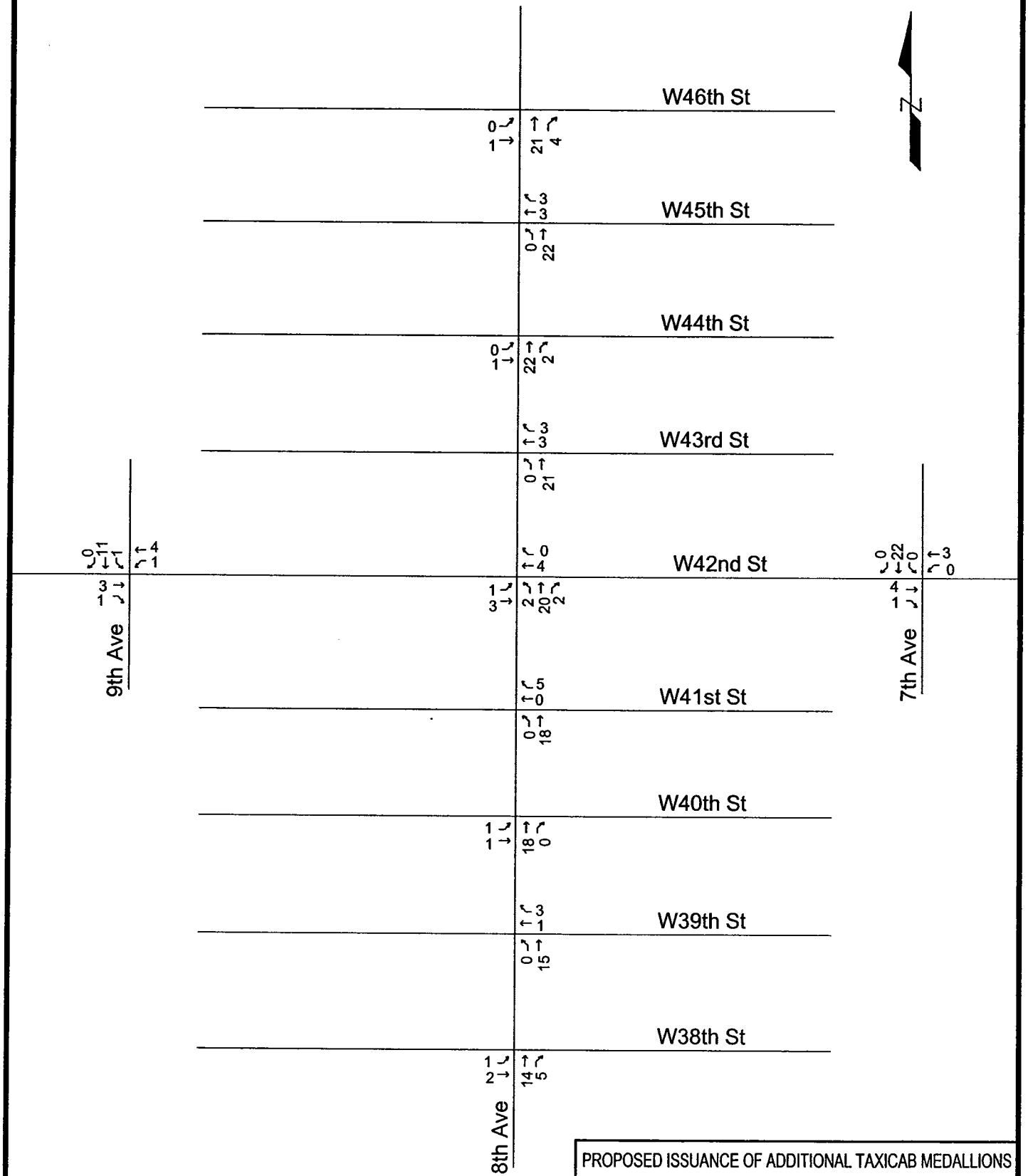


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-48

Not to Scale

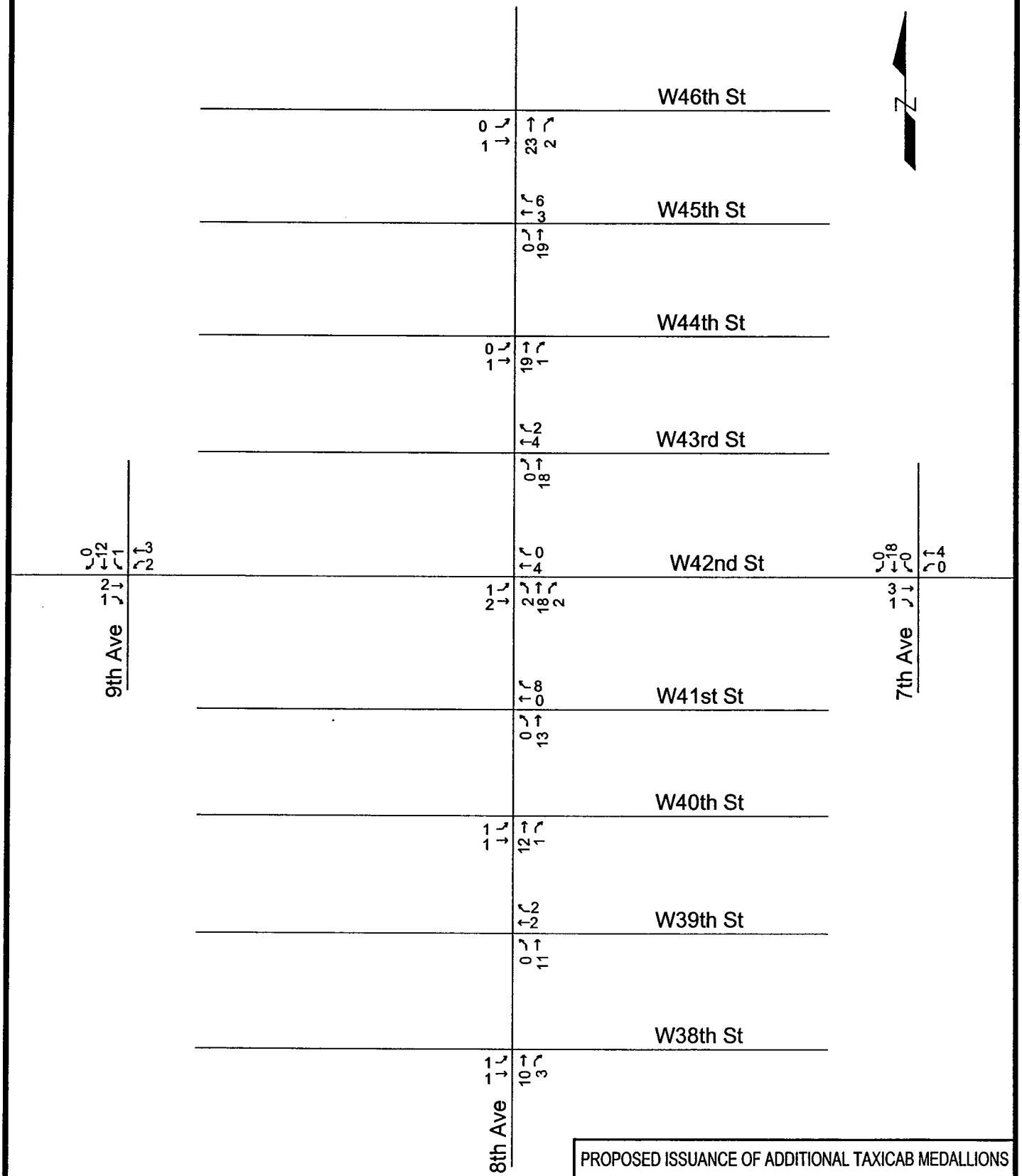


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-49

Not to Scale

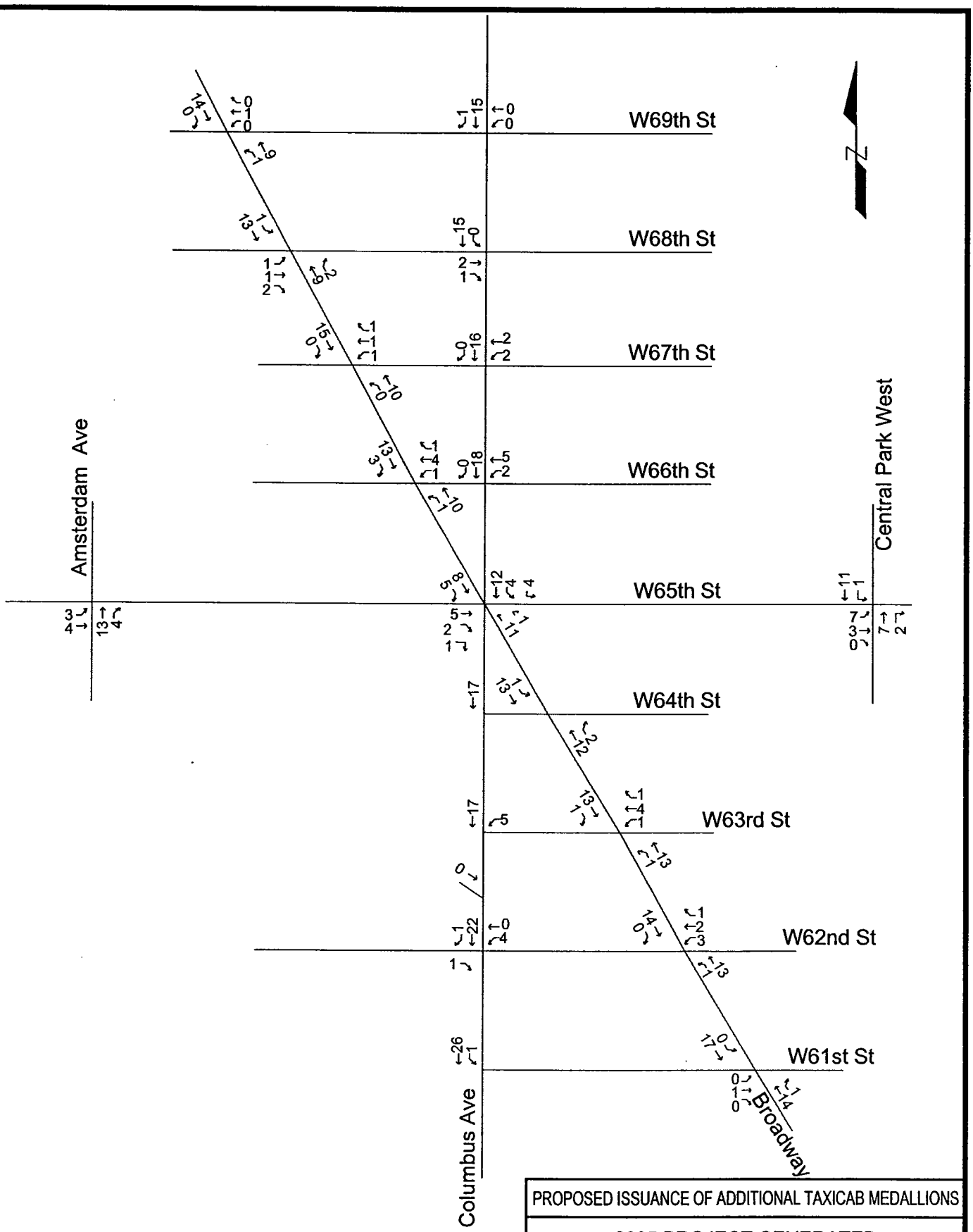


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-50

Not to Scale

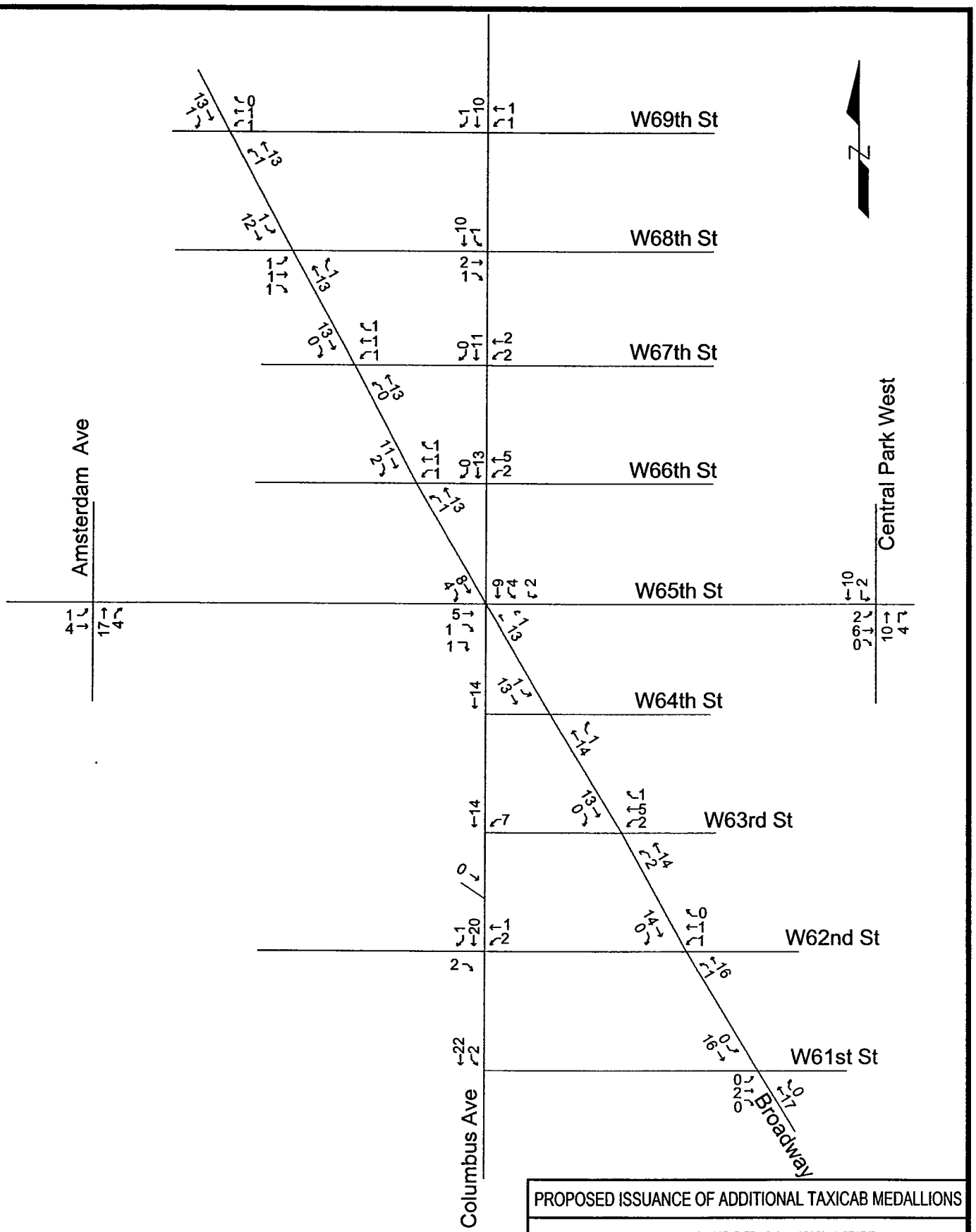


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-51

Not to Scale

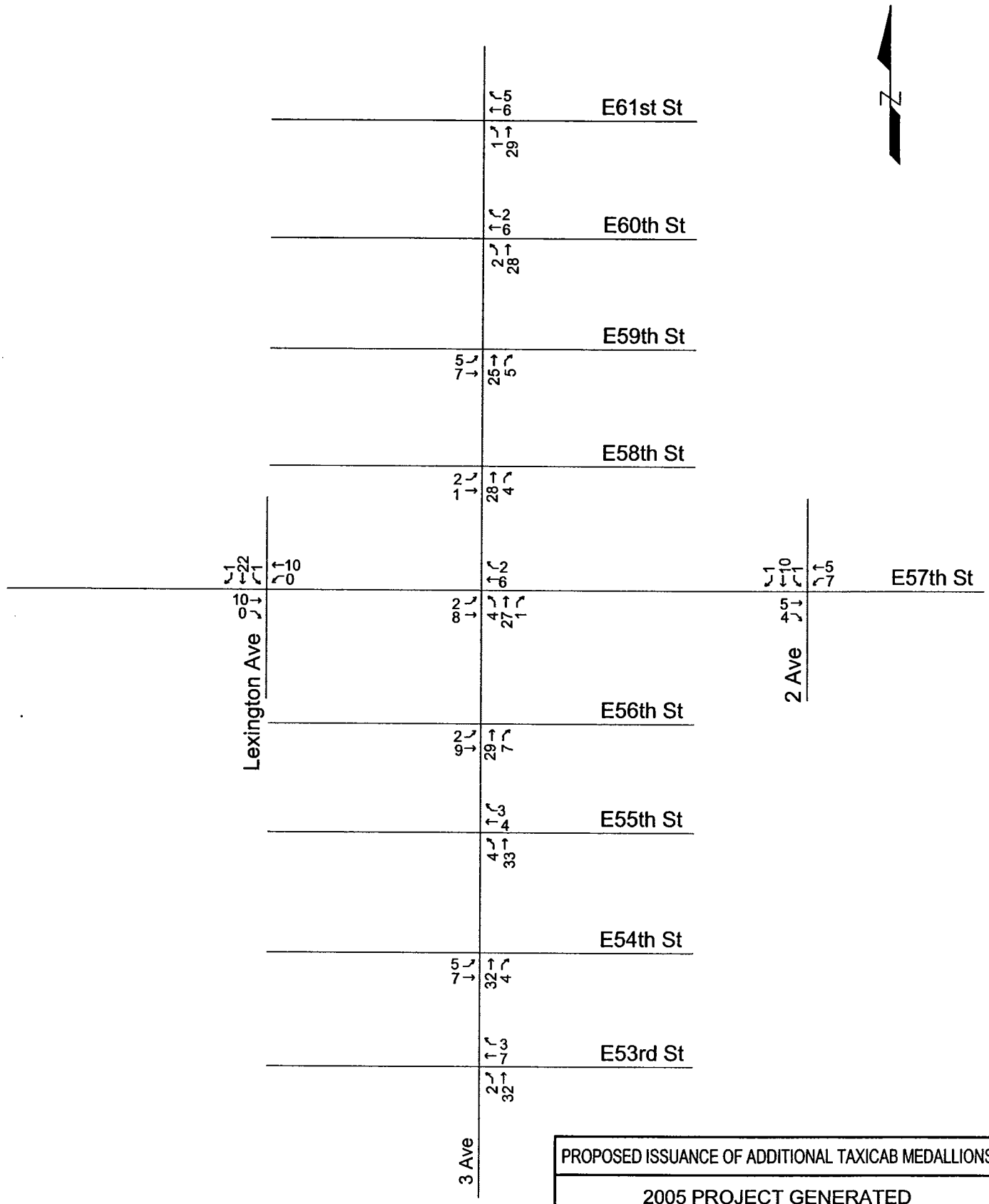


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-52

Not to Scale

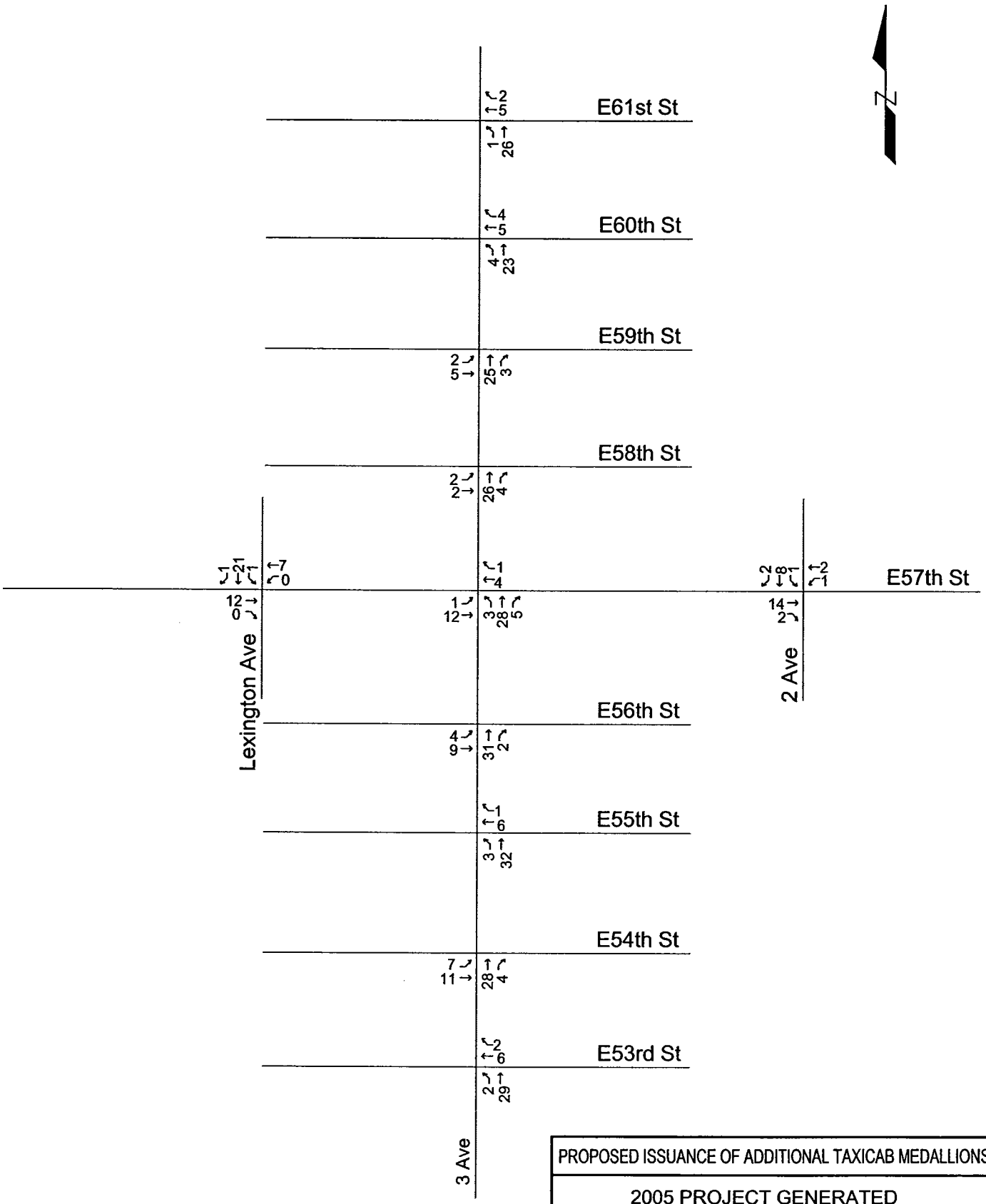


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-53

Not to Scale

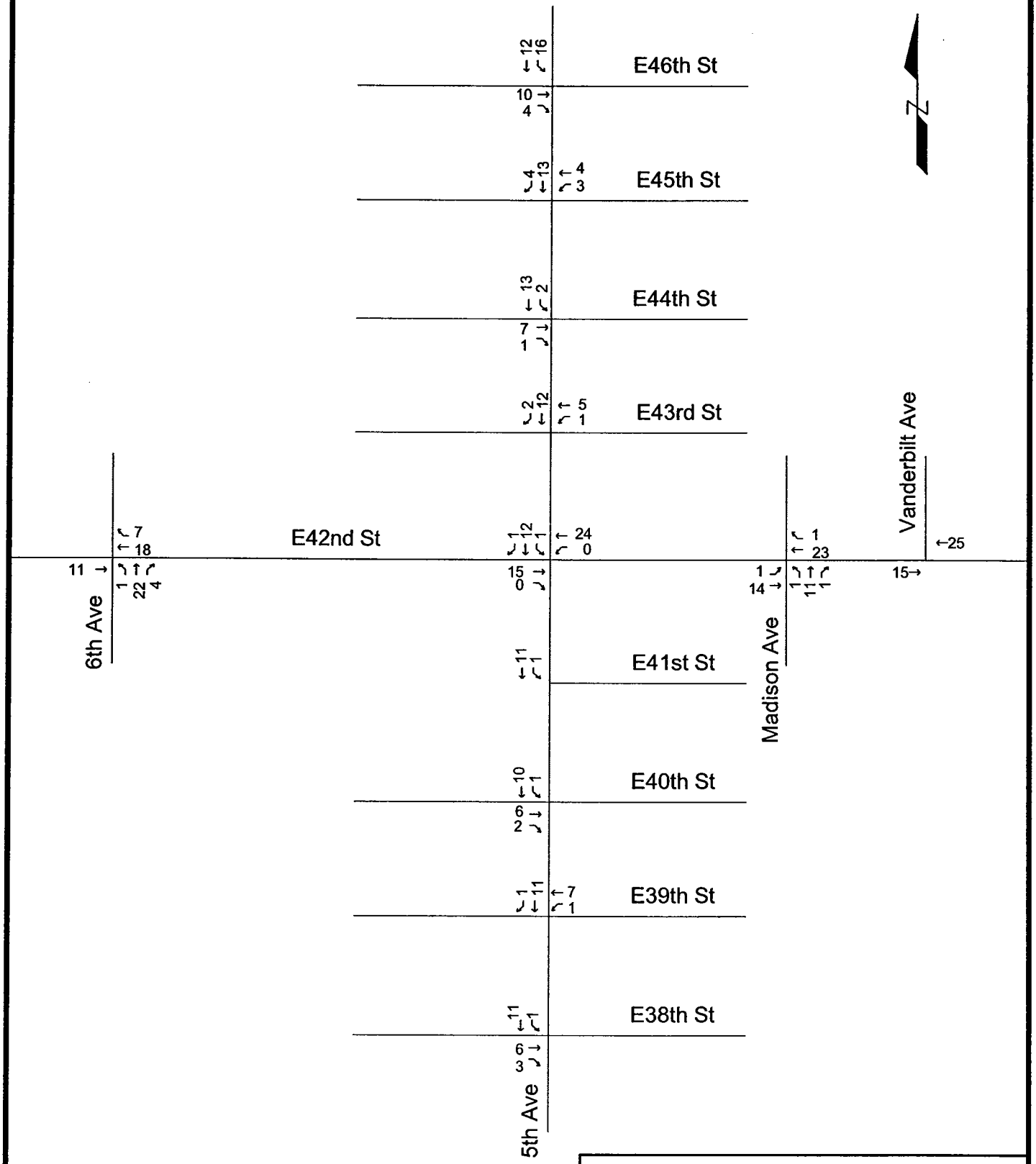


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-54

Not to Scale

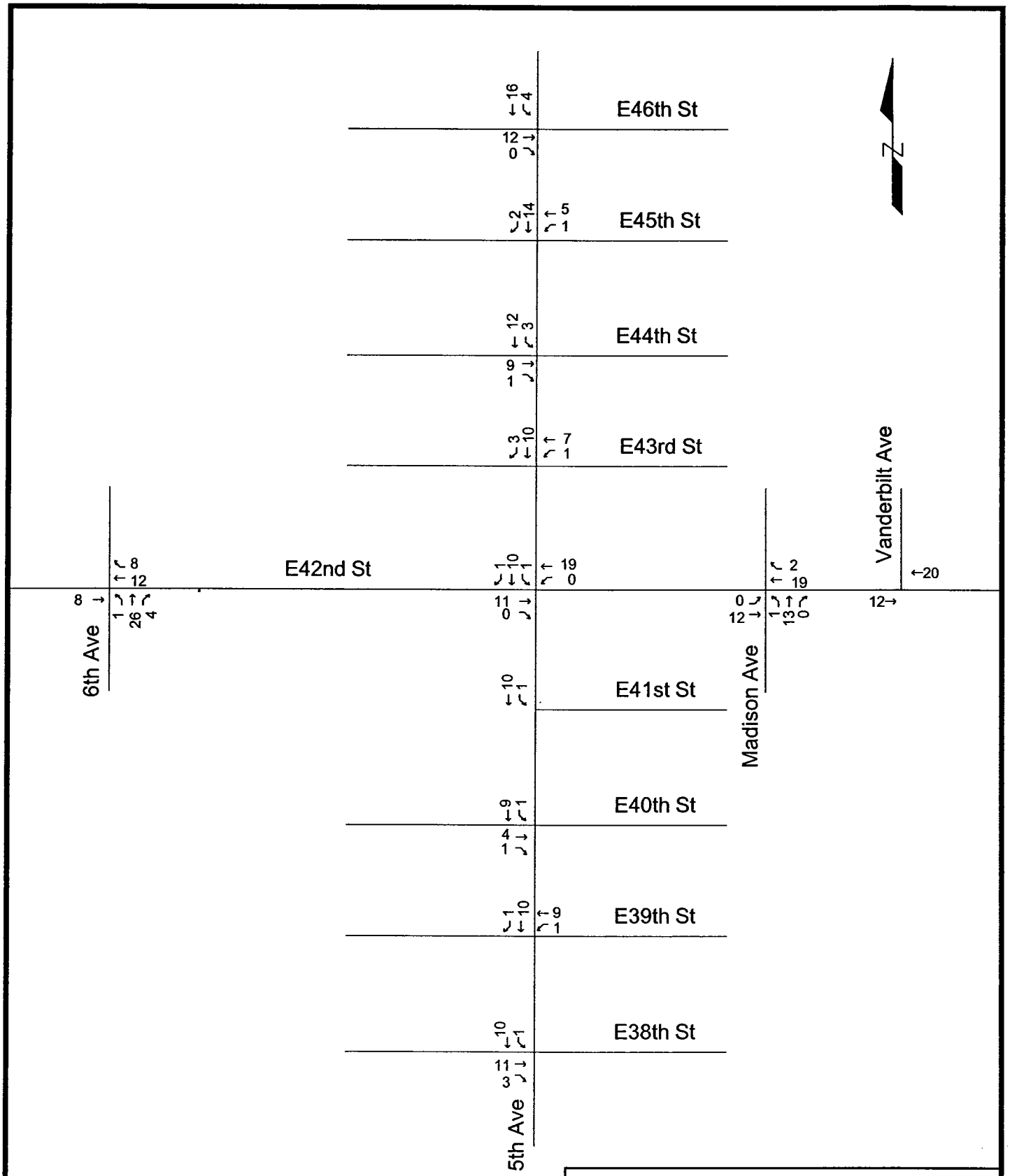


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-55

Not to Scale

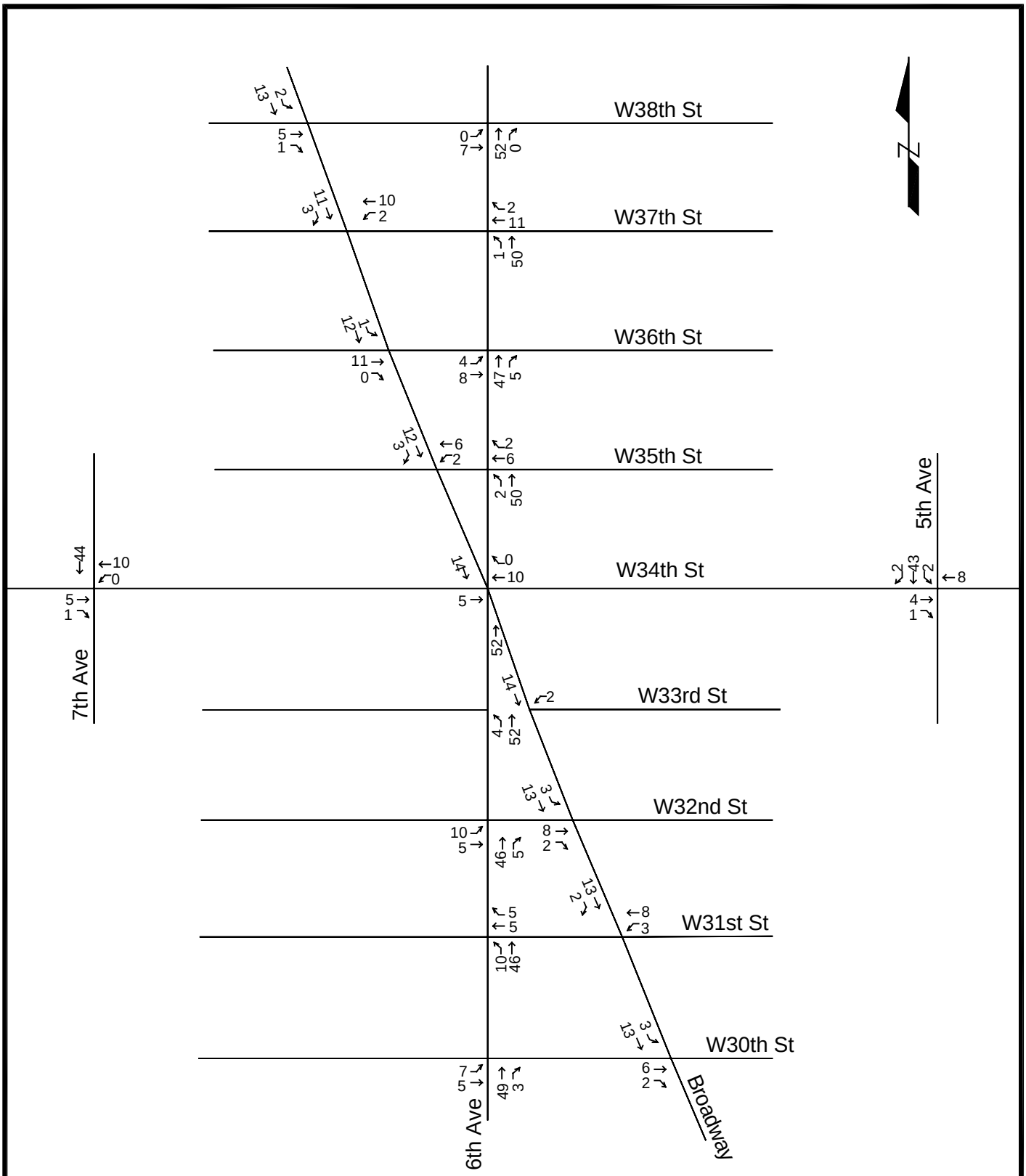


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-56

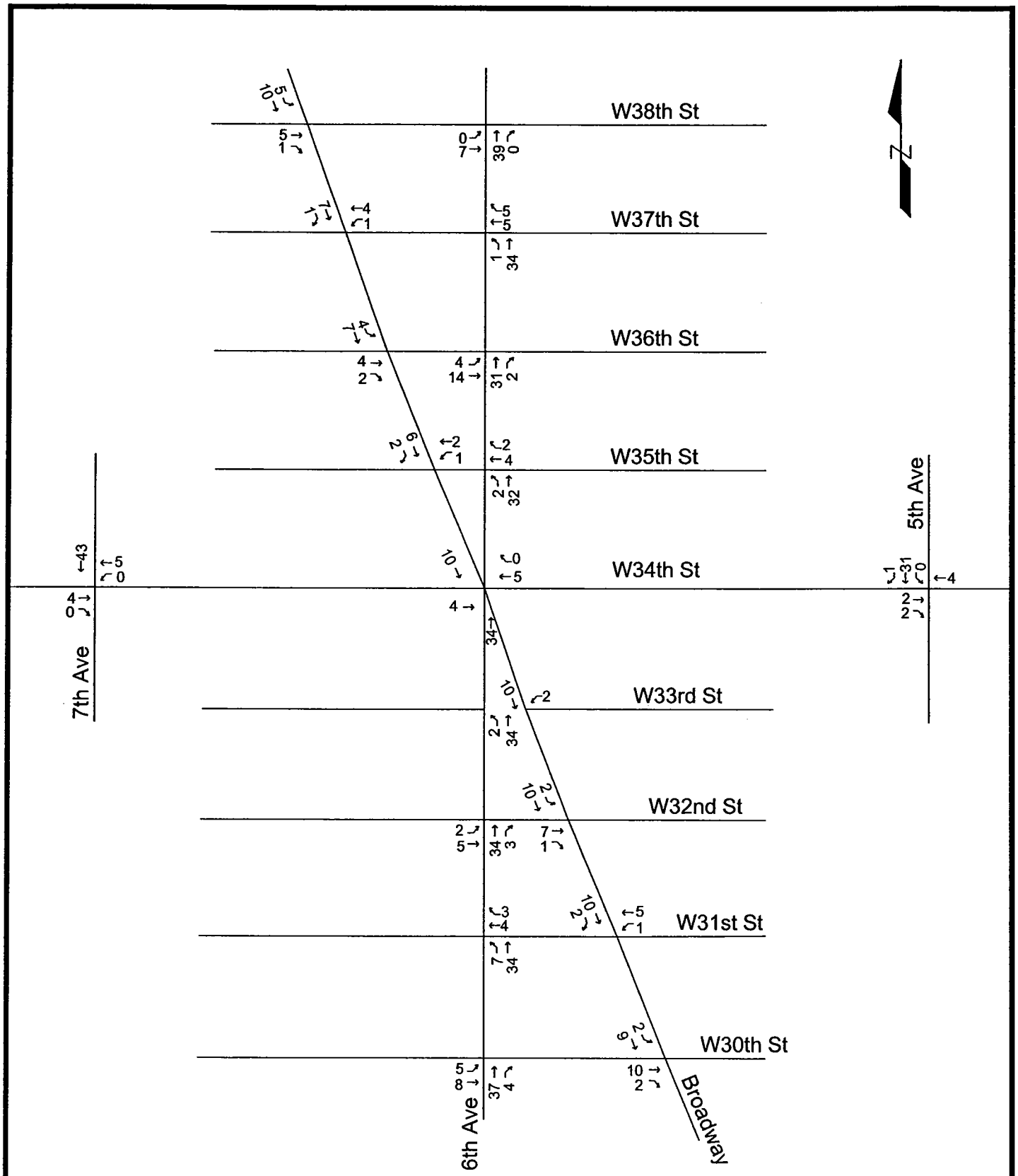
Not to Scale



PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-57 Not to Scale

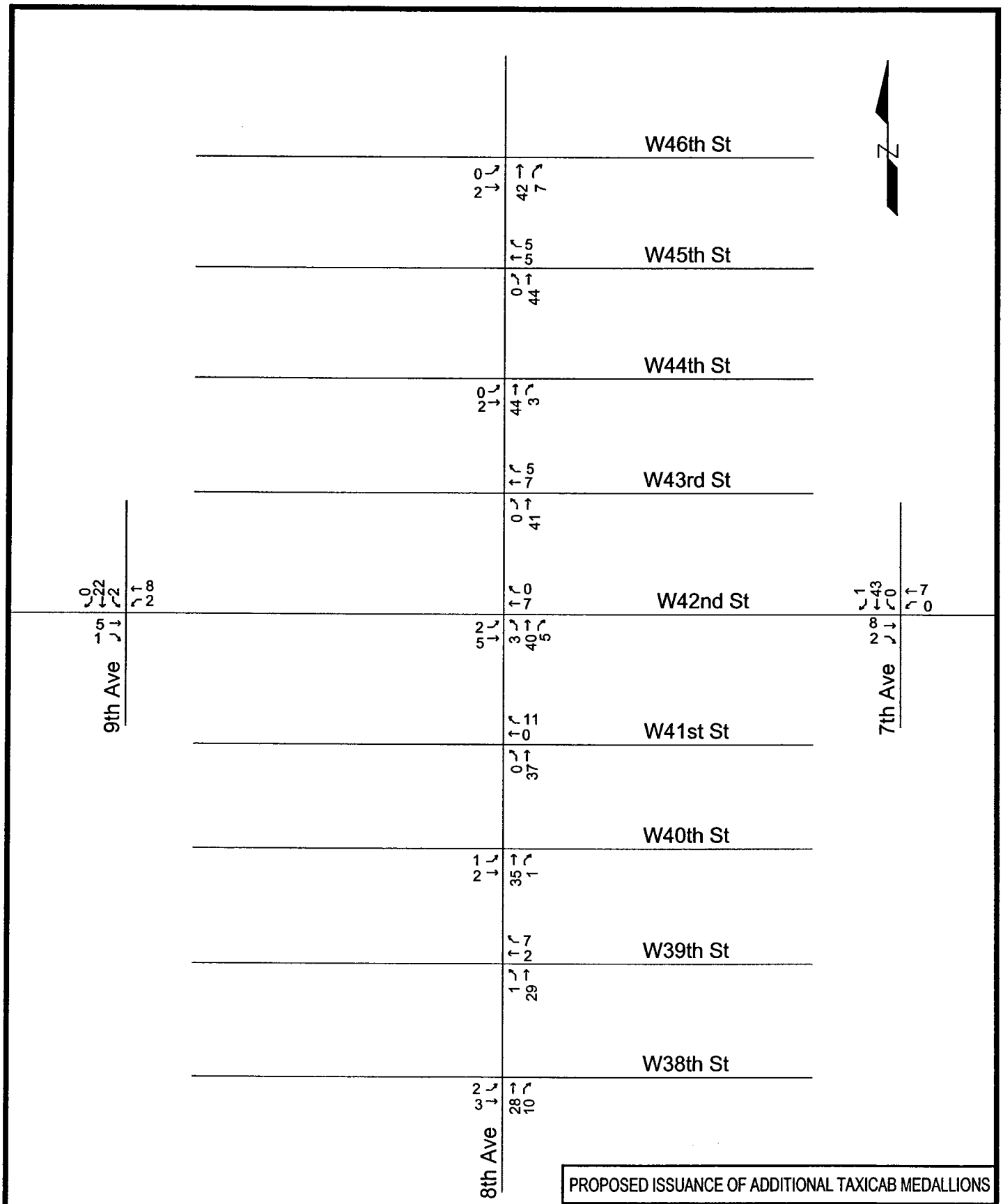


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-58

Not to Scale

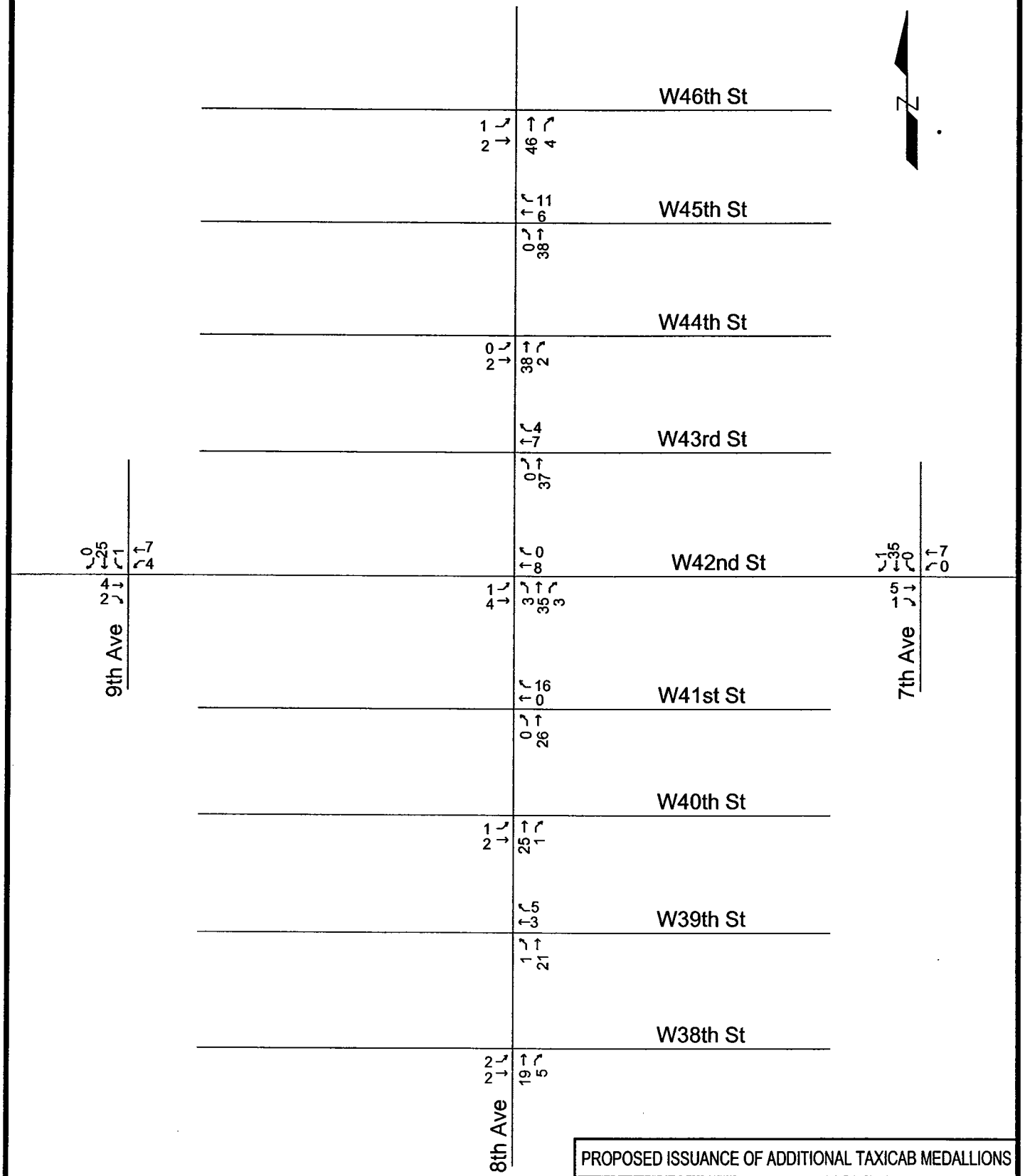


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-59

Not to Scale

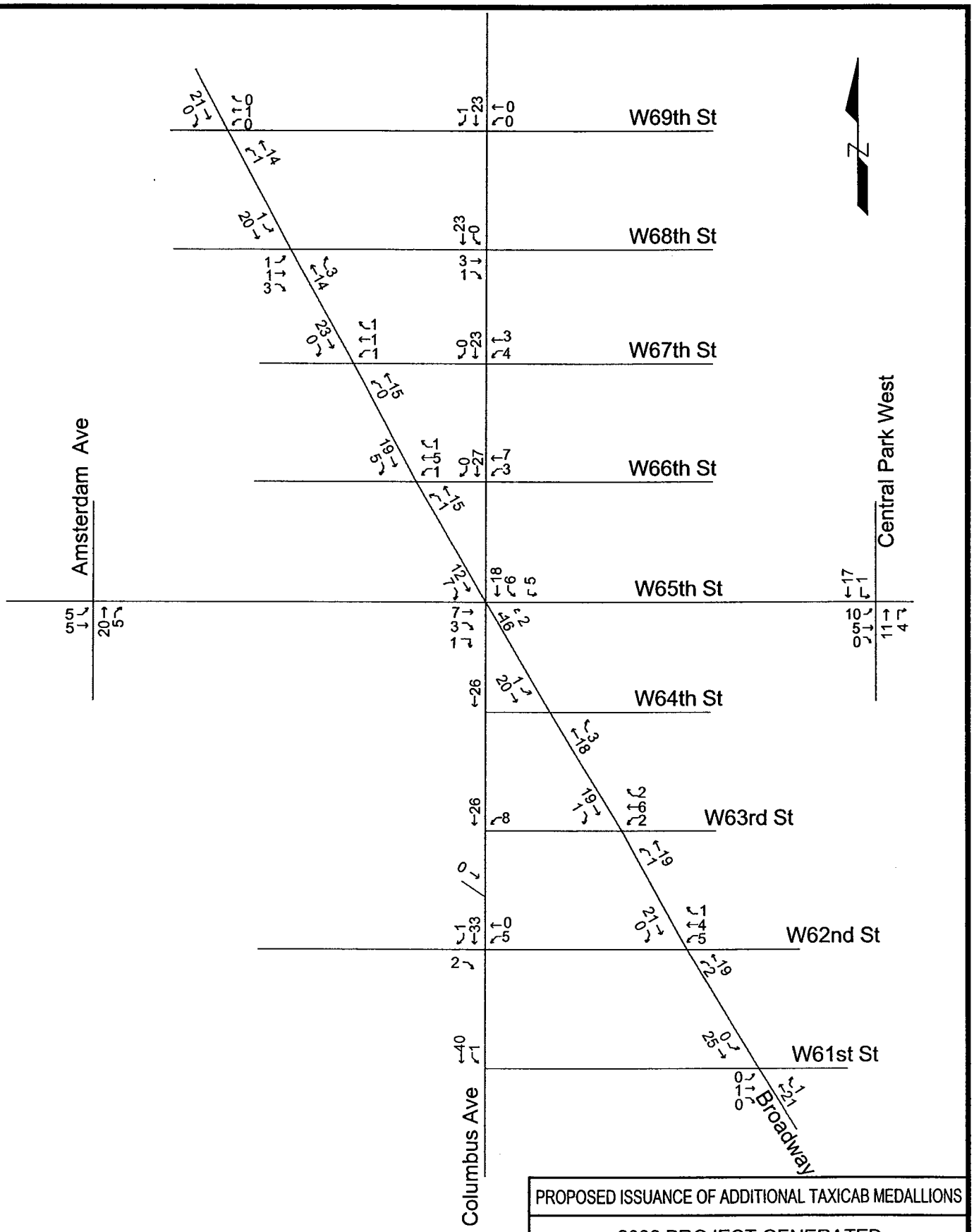


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-60

Not to Scale

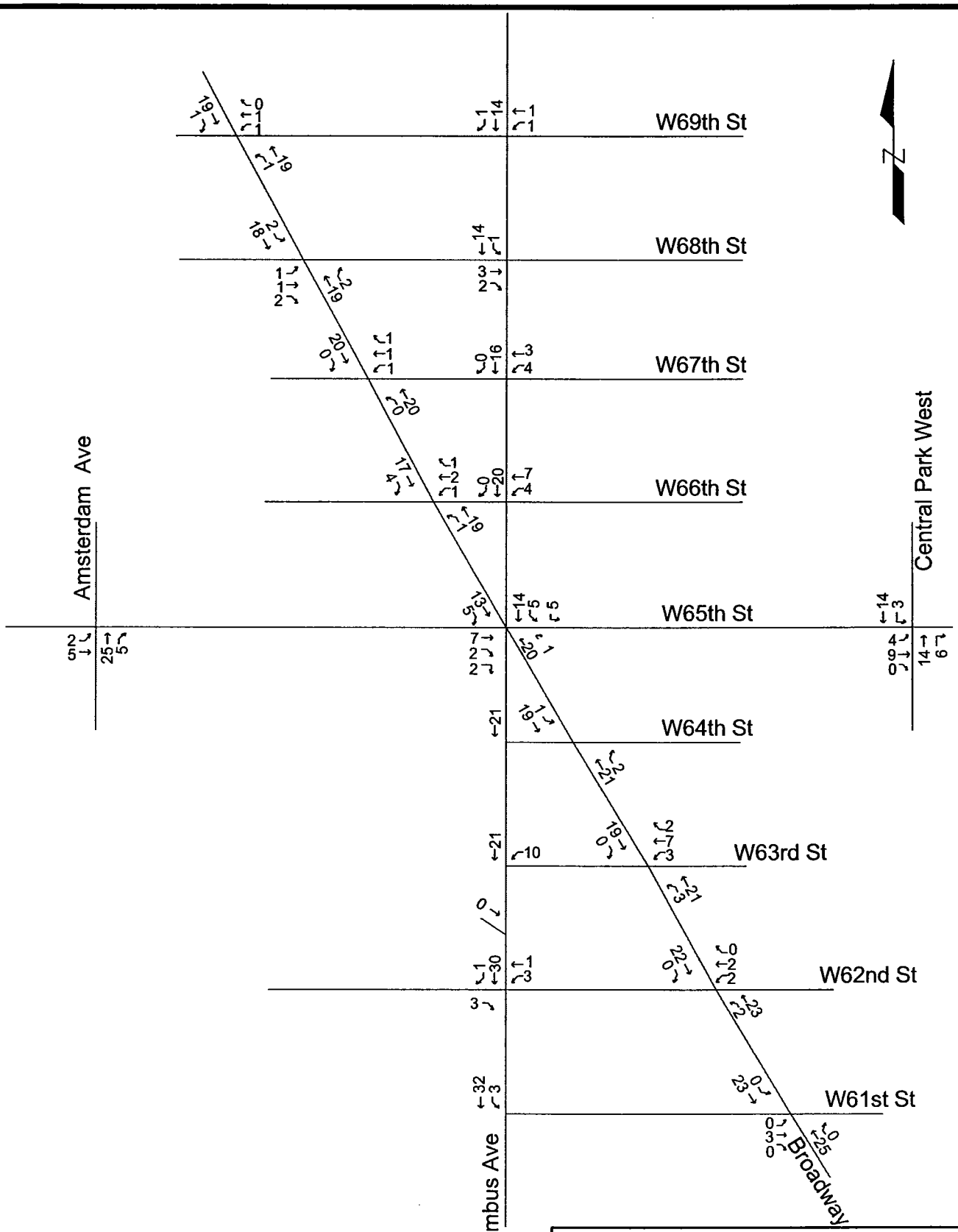


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-61

Not to Scale

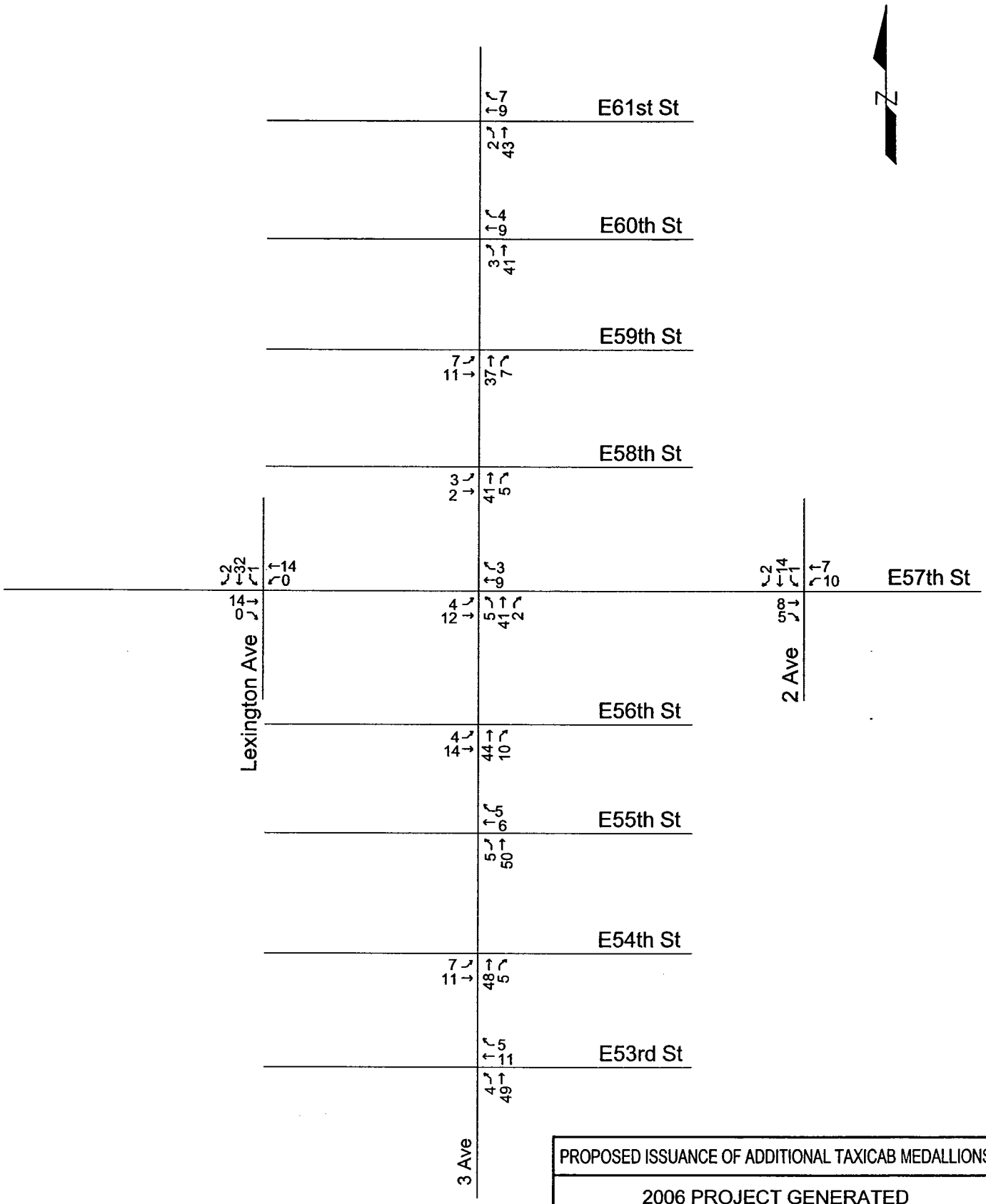


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-62

Not to Scale

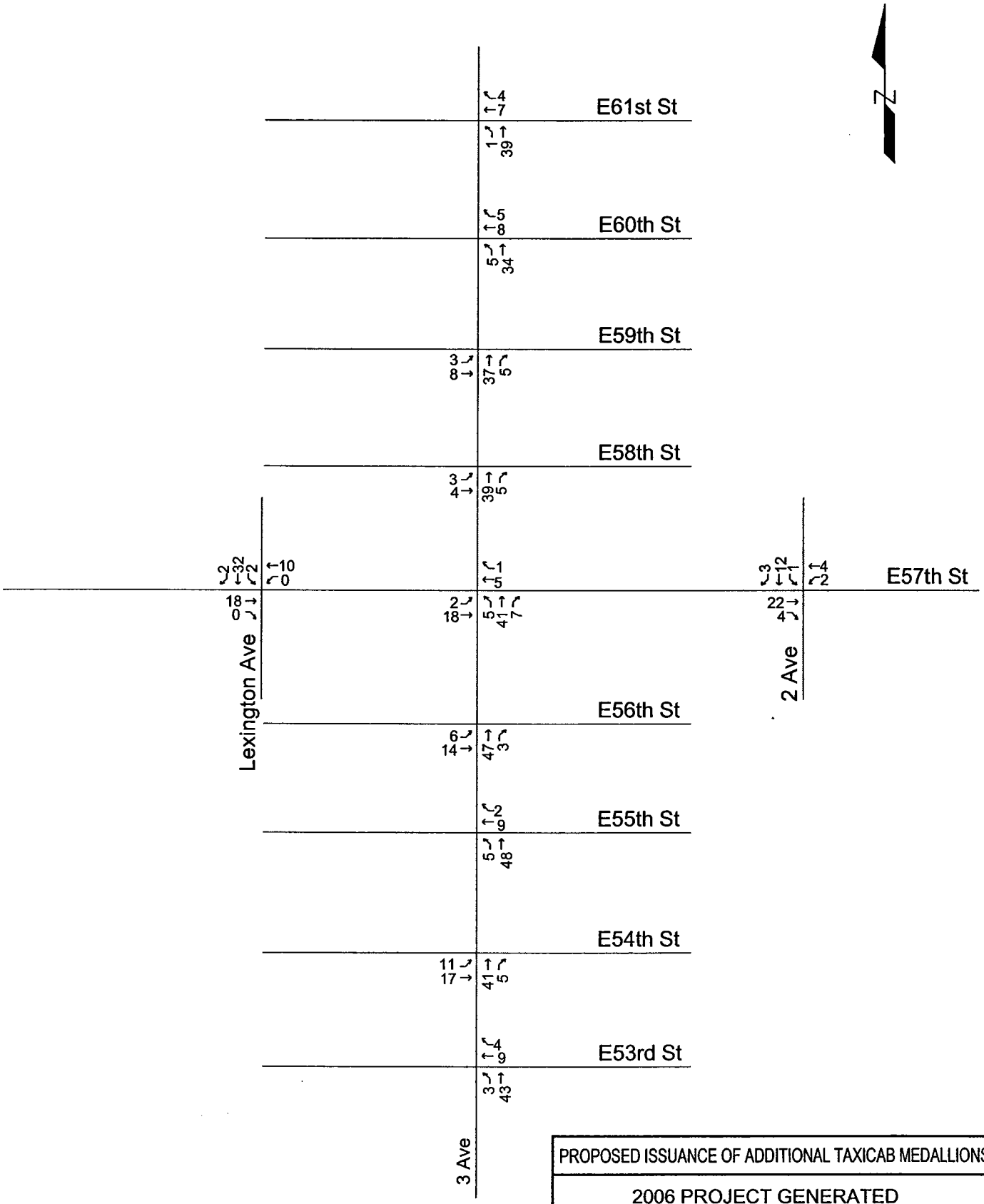


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-63

Not to Scale

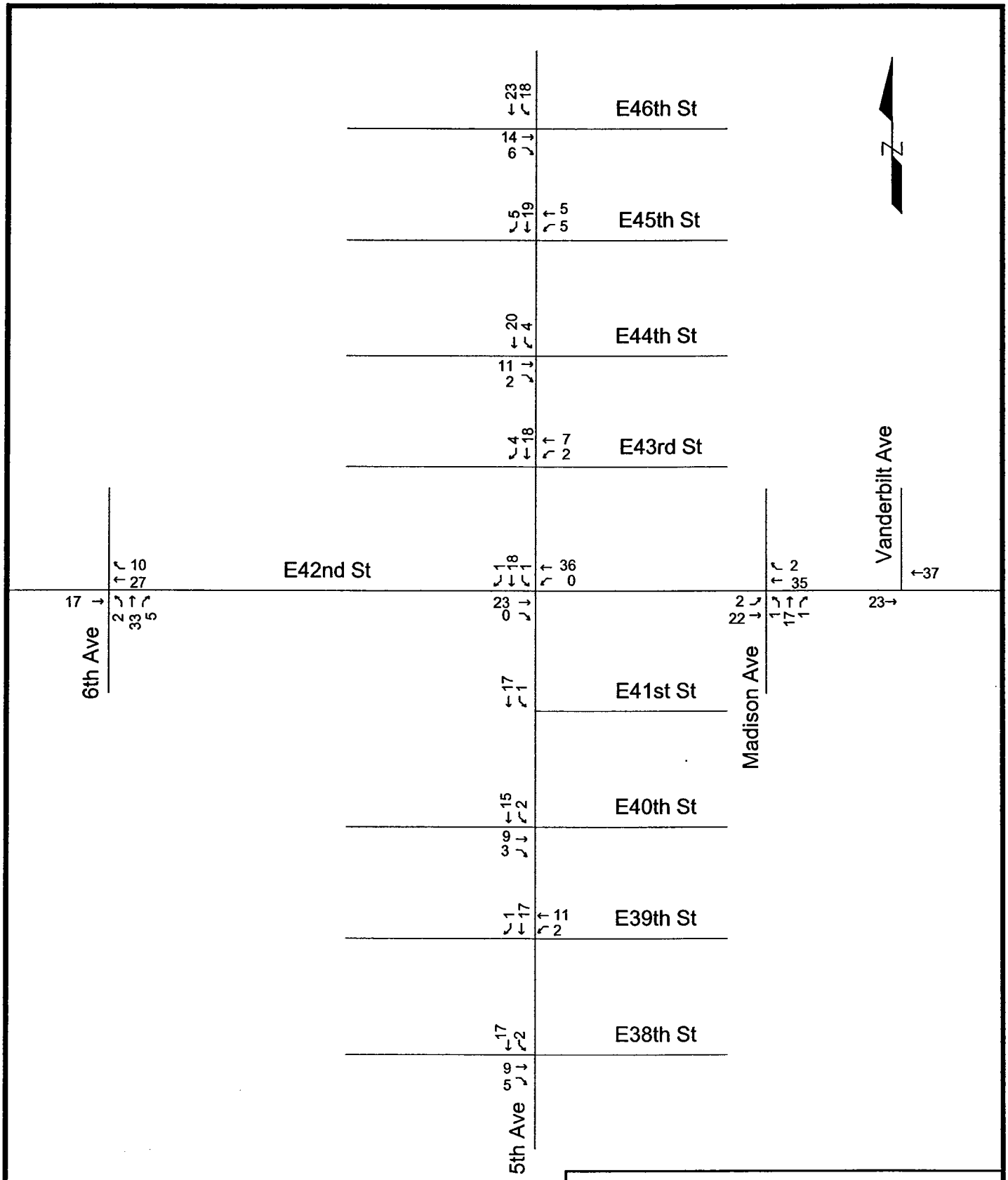


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-64

Not to Scale

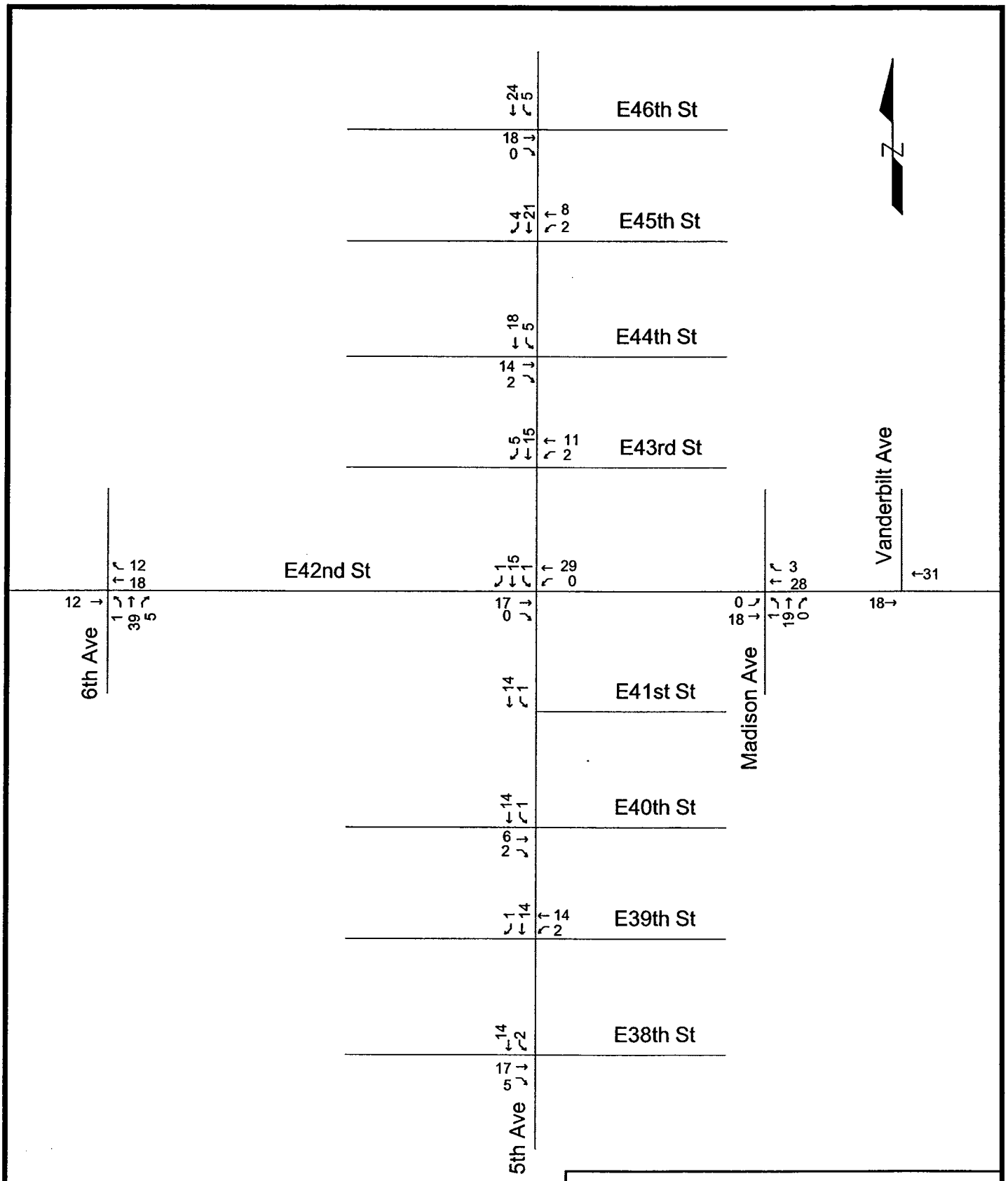


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-65

Not to Scale

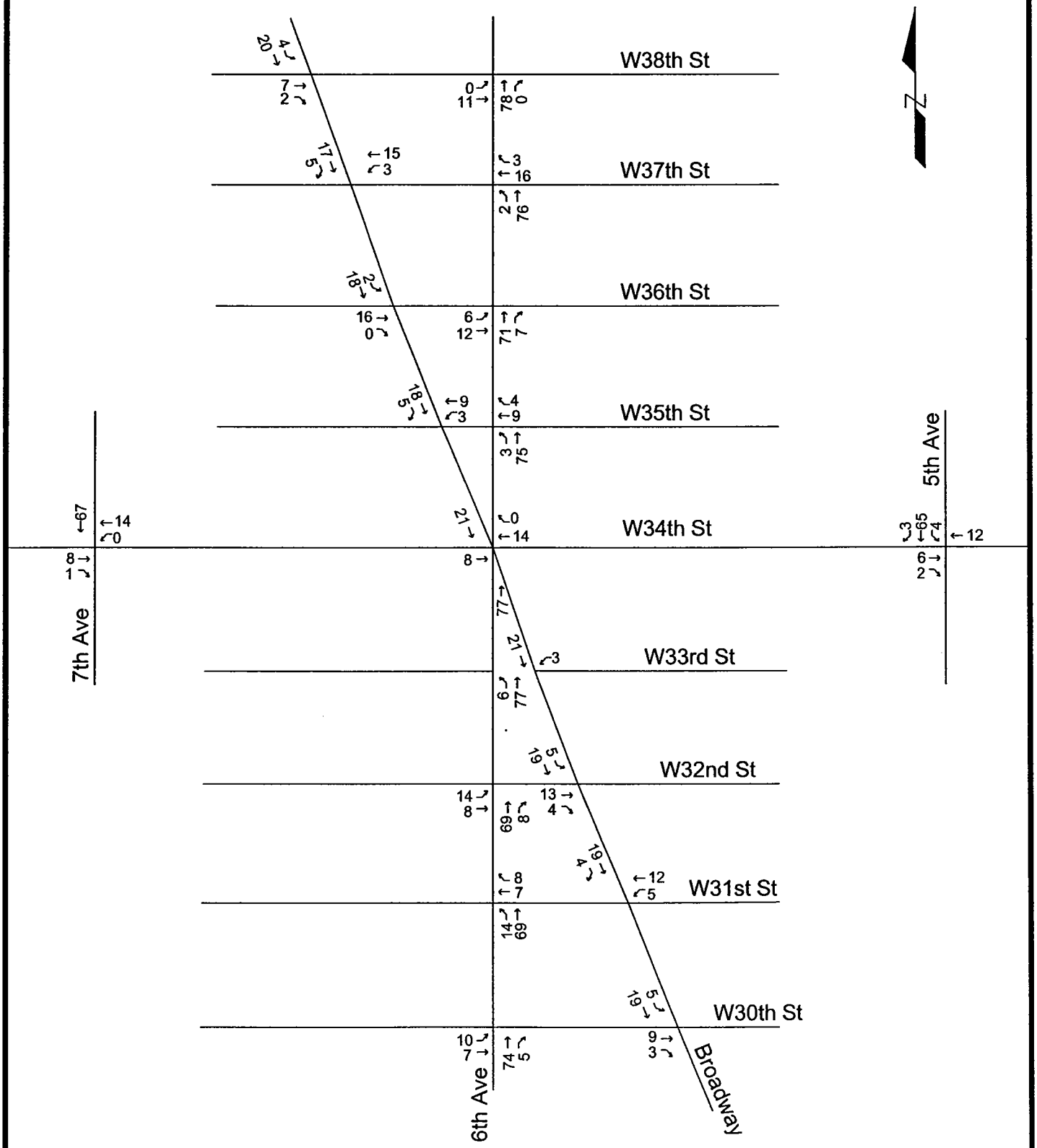


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-66

Not to Scale

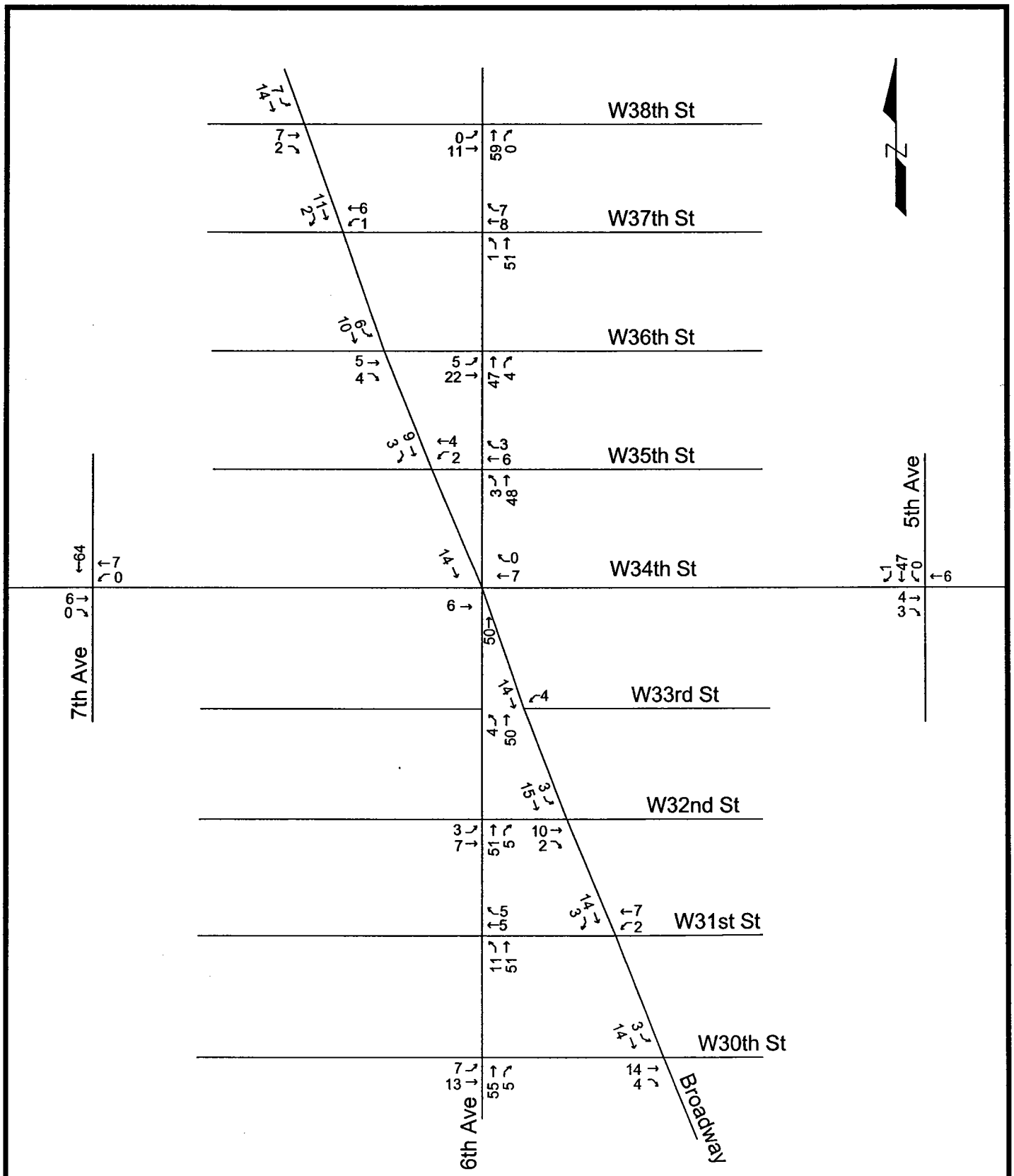


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-67

Not to Scale

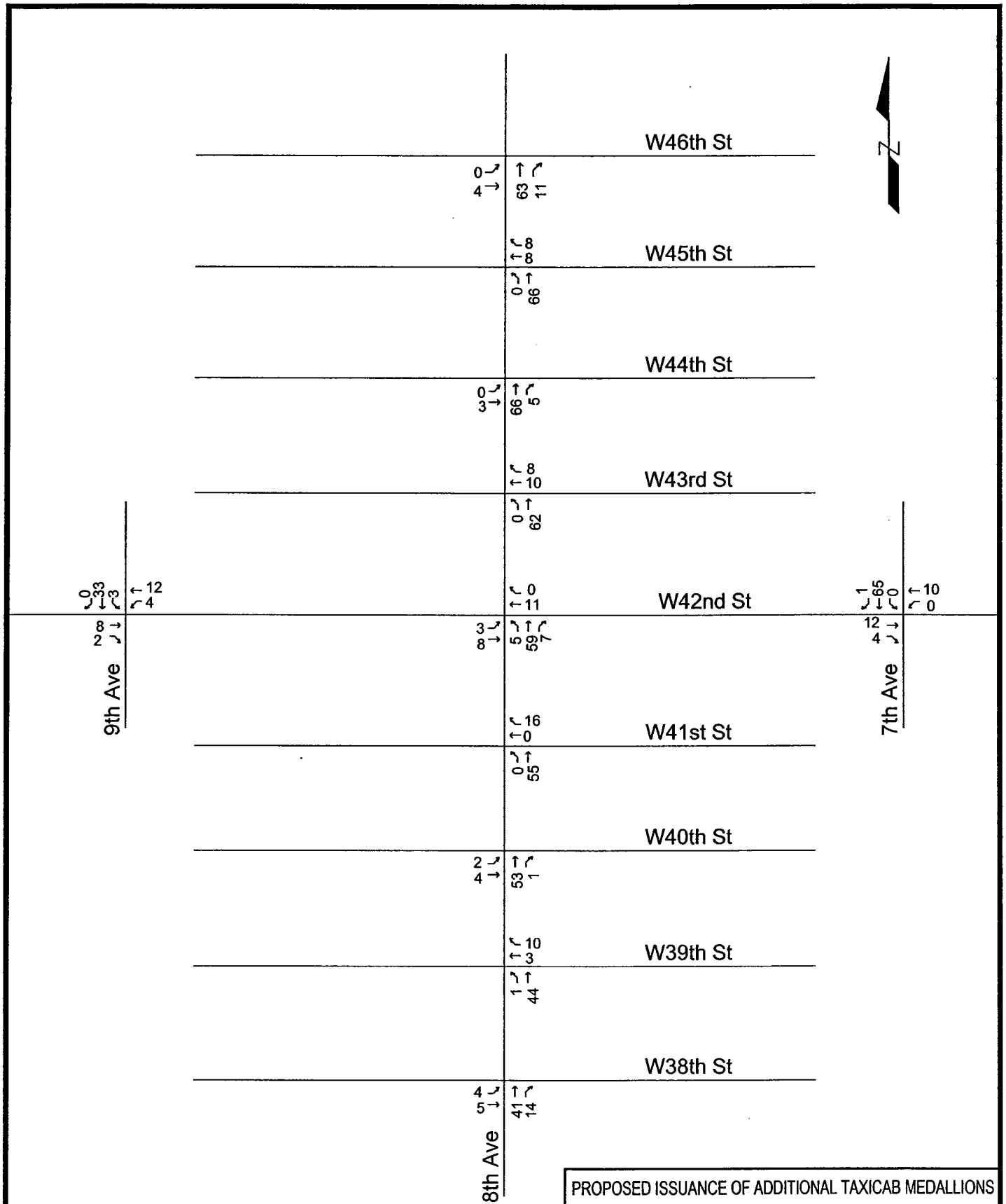


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-68

Not to Scale

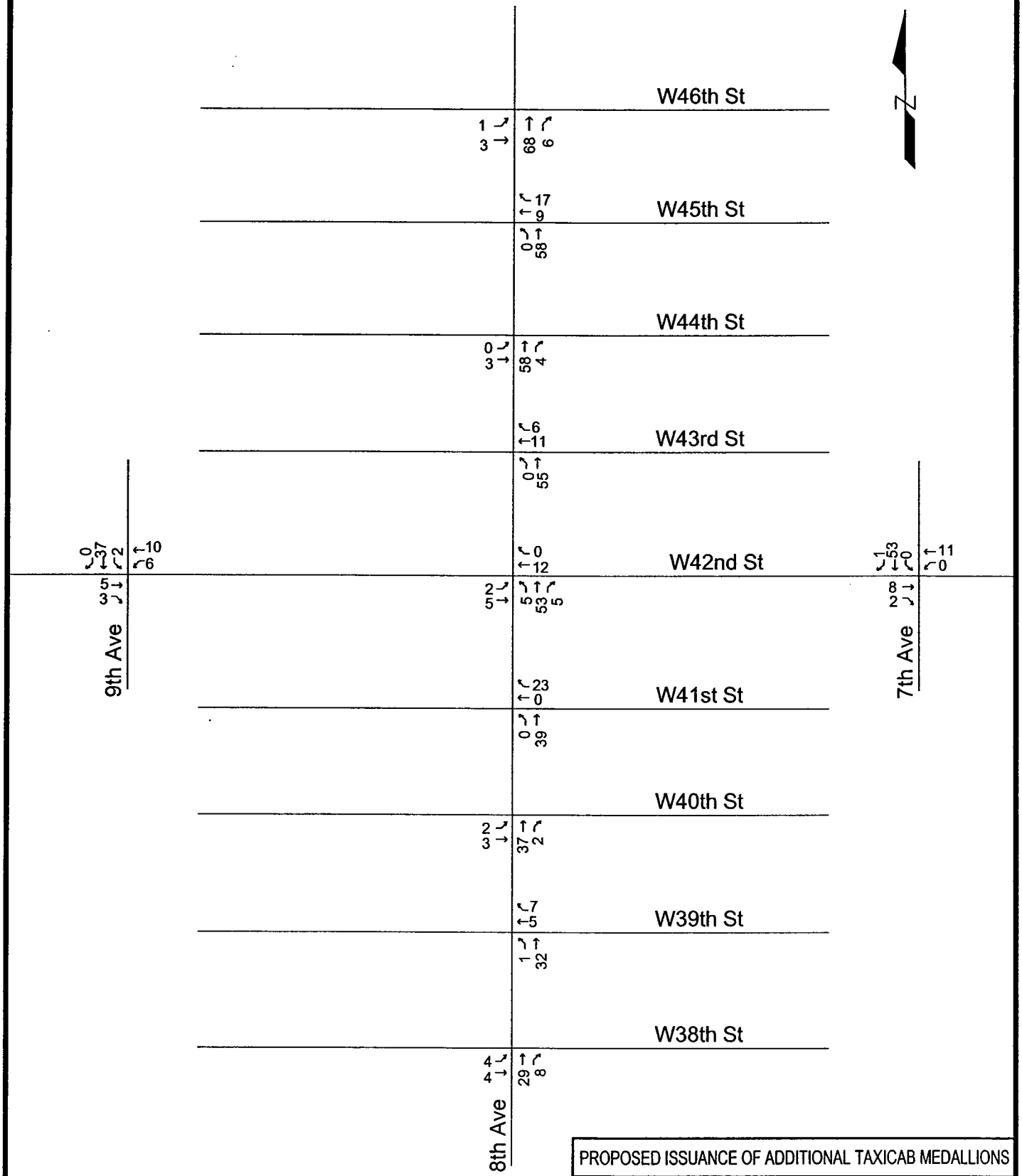


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-69

Not to Scale



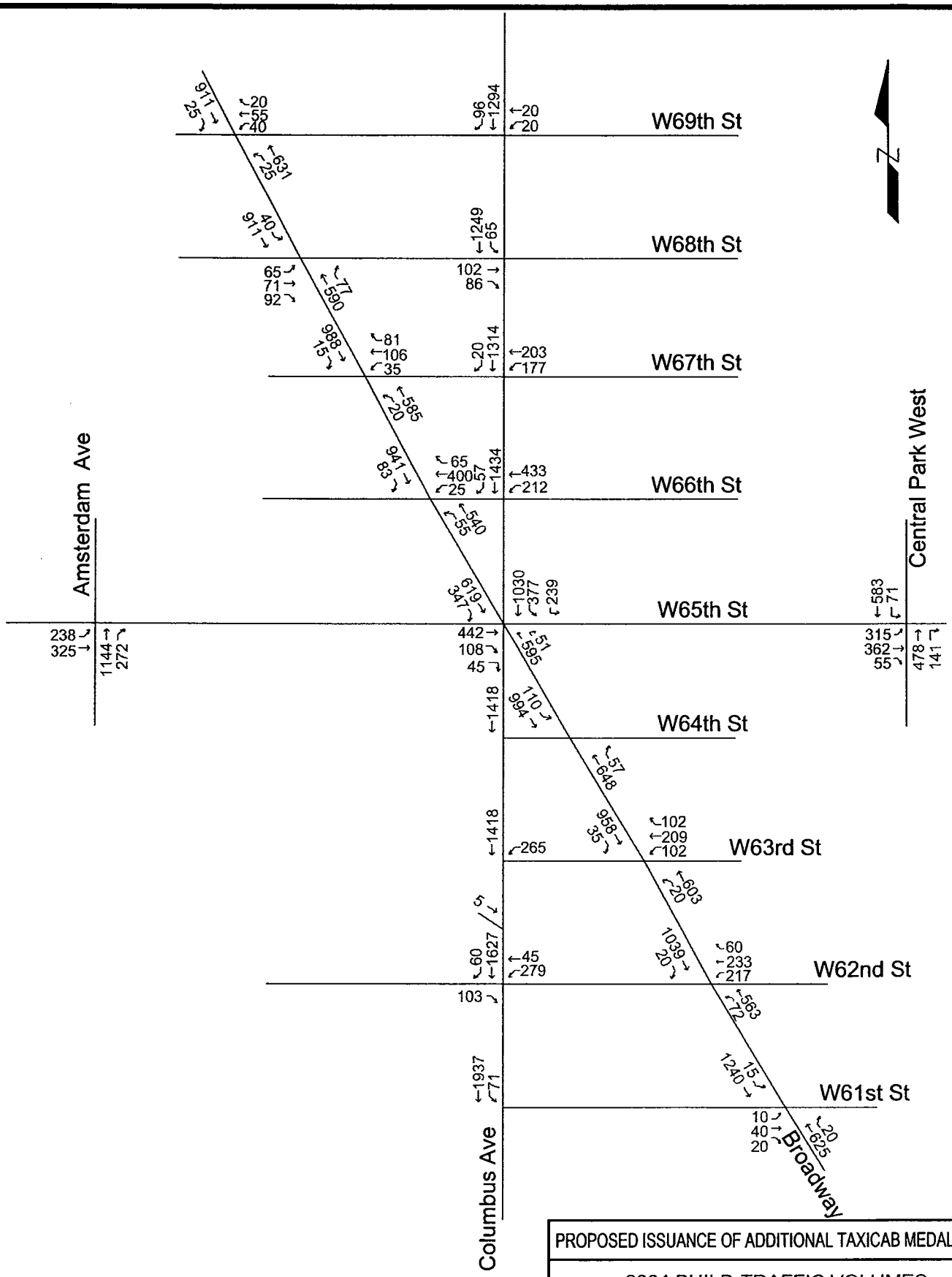
PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 PROJECT GENERATED
TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-70 Not to Scale

Build Traffic Conditions Flow Maps

2004, 2005, and 2006 Horizon Years

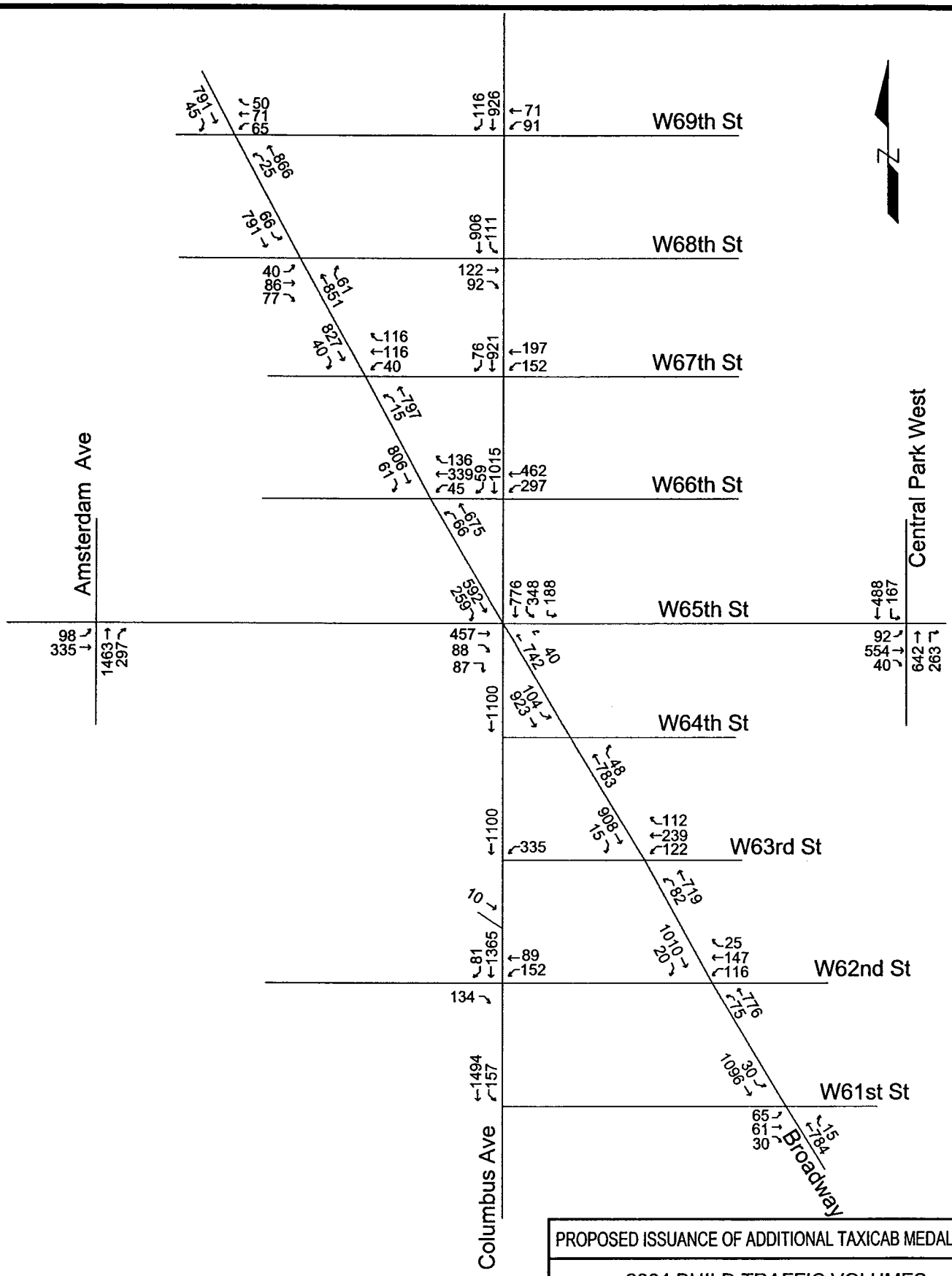


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 BUILD TRAFFIC VOLUMES
AM PEAK HOUR (7:45-8:45 AM)

Figure: A-71

Not to Scale

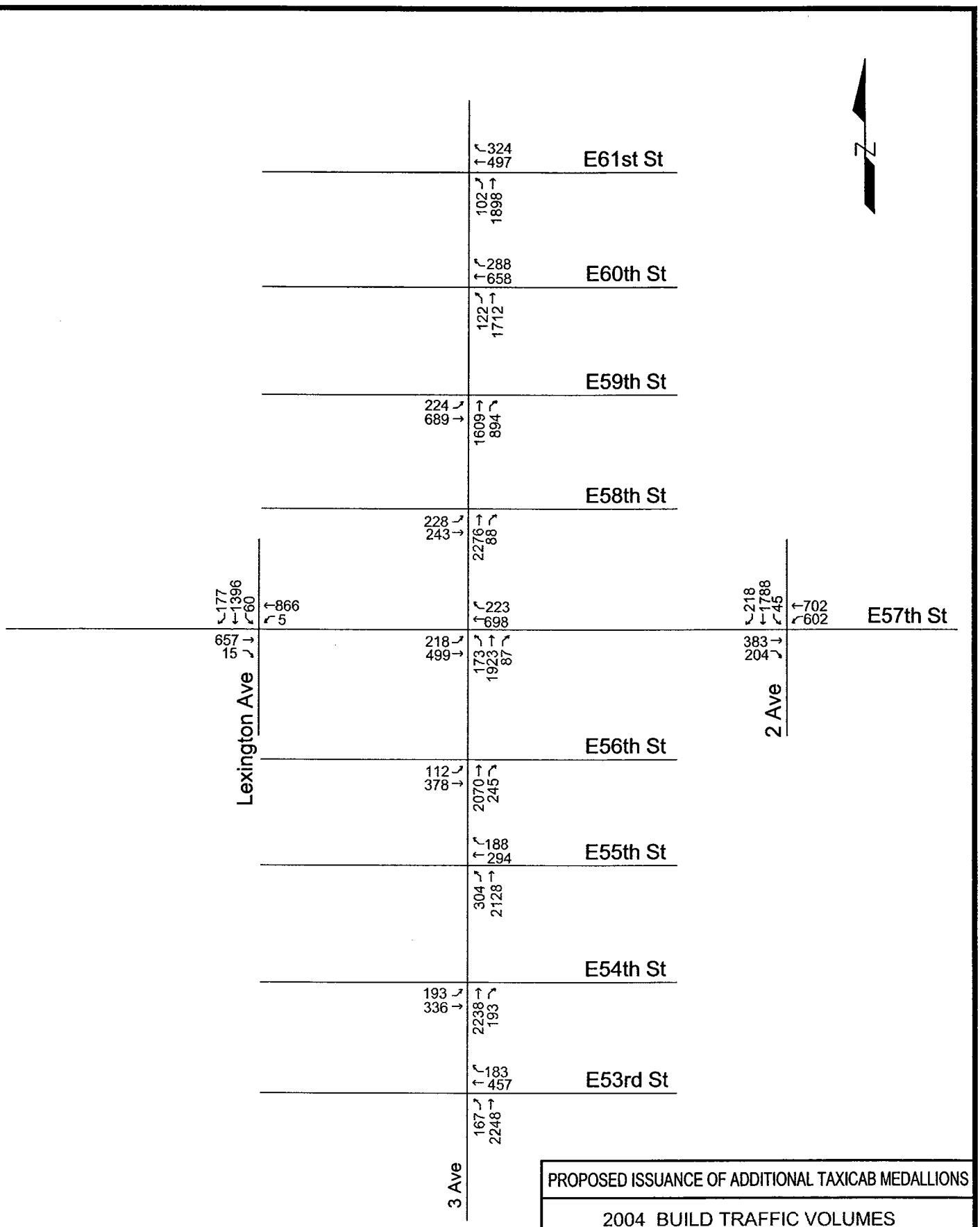


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 BUILD TRAFFIC VOLUMES
PM PEAK HOUR (5:00-6:00 PM)

Figure: A-72

Not to Scale

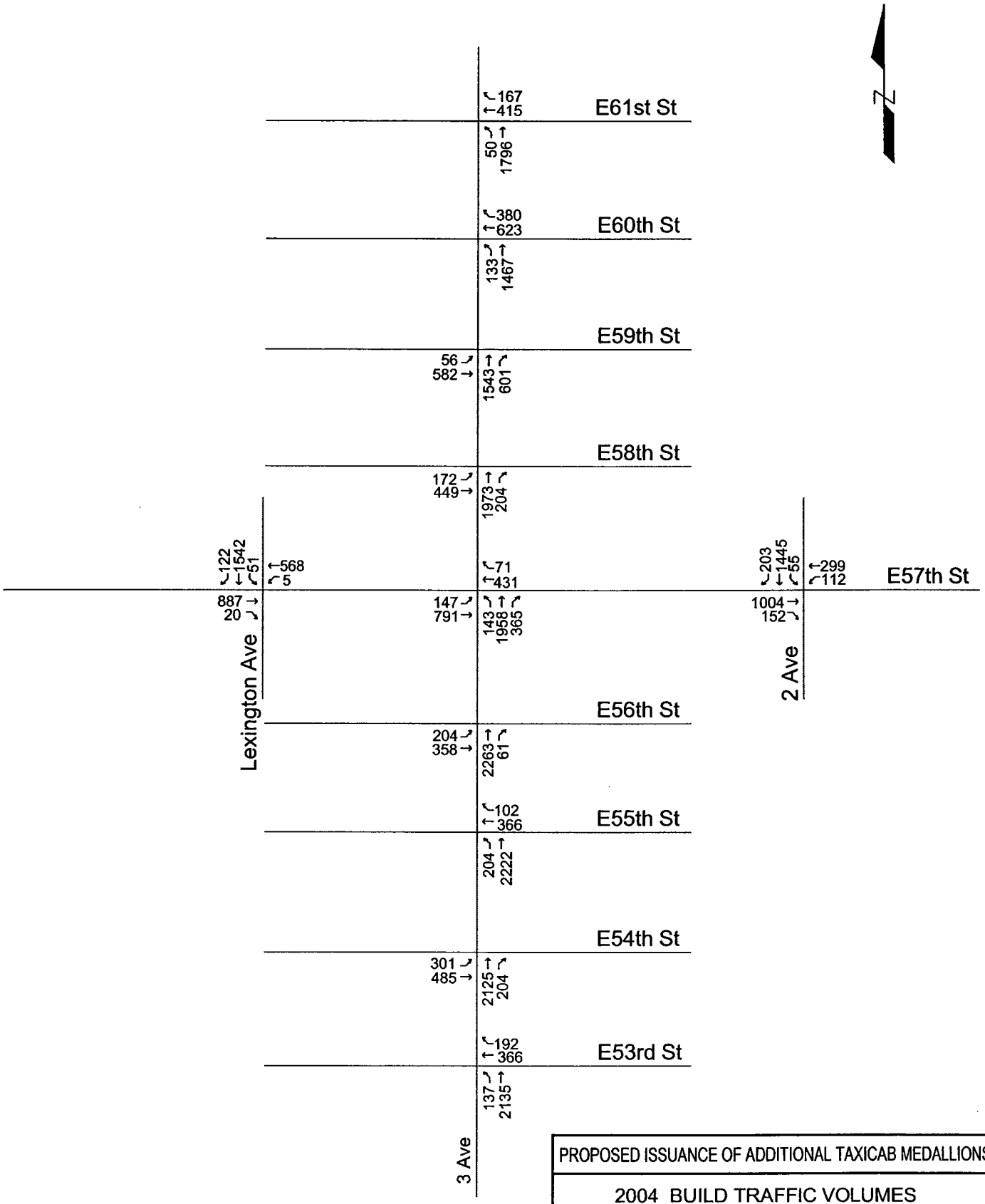


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-73

Not to Scale

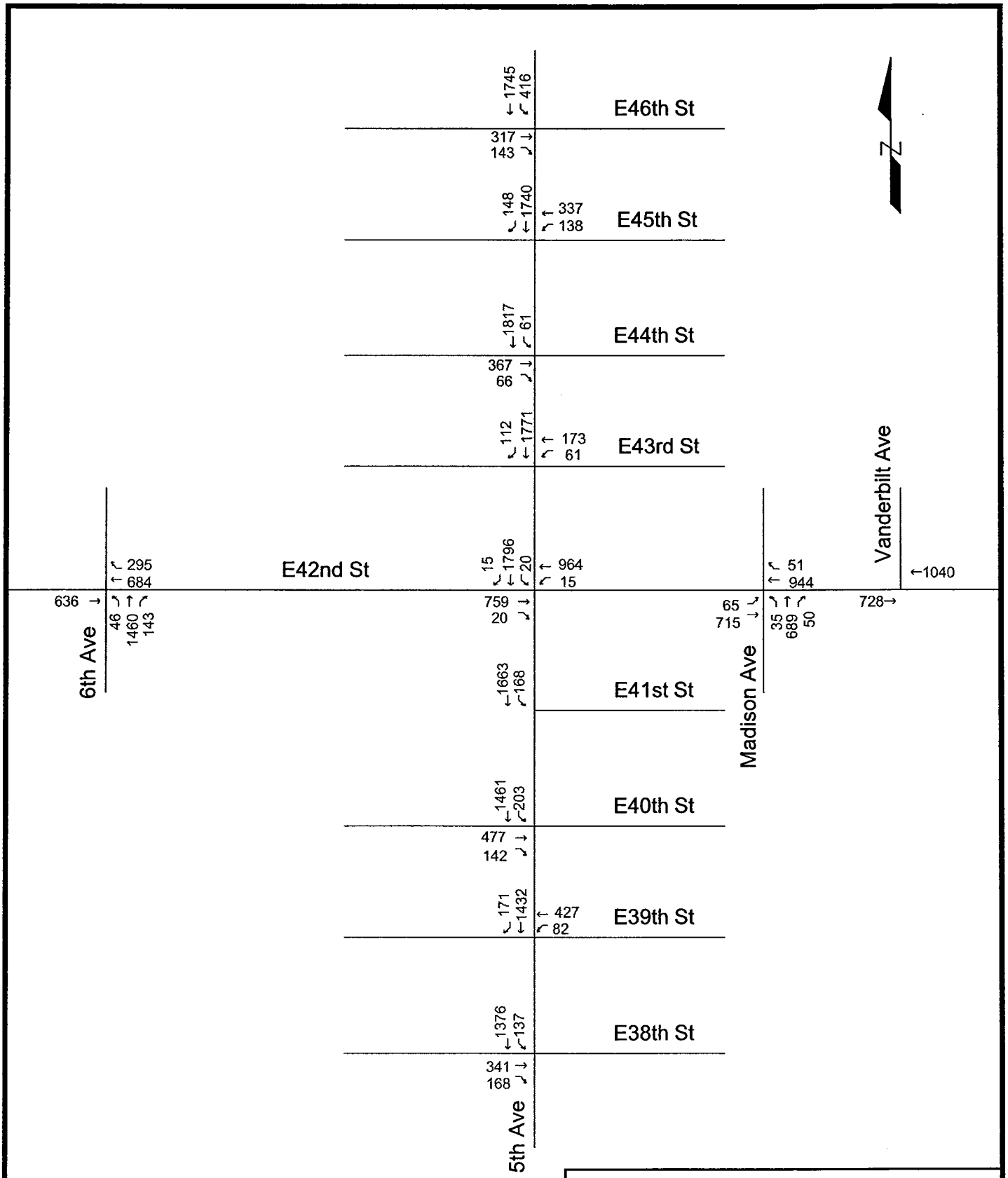


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-74

Not to Scale

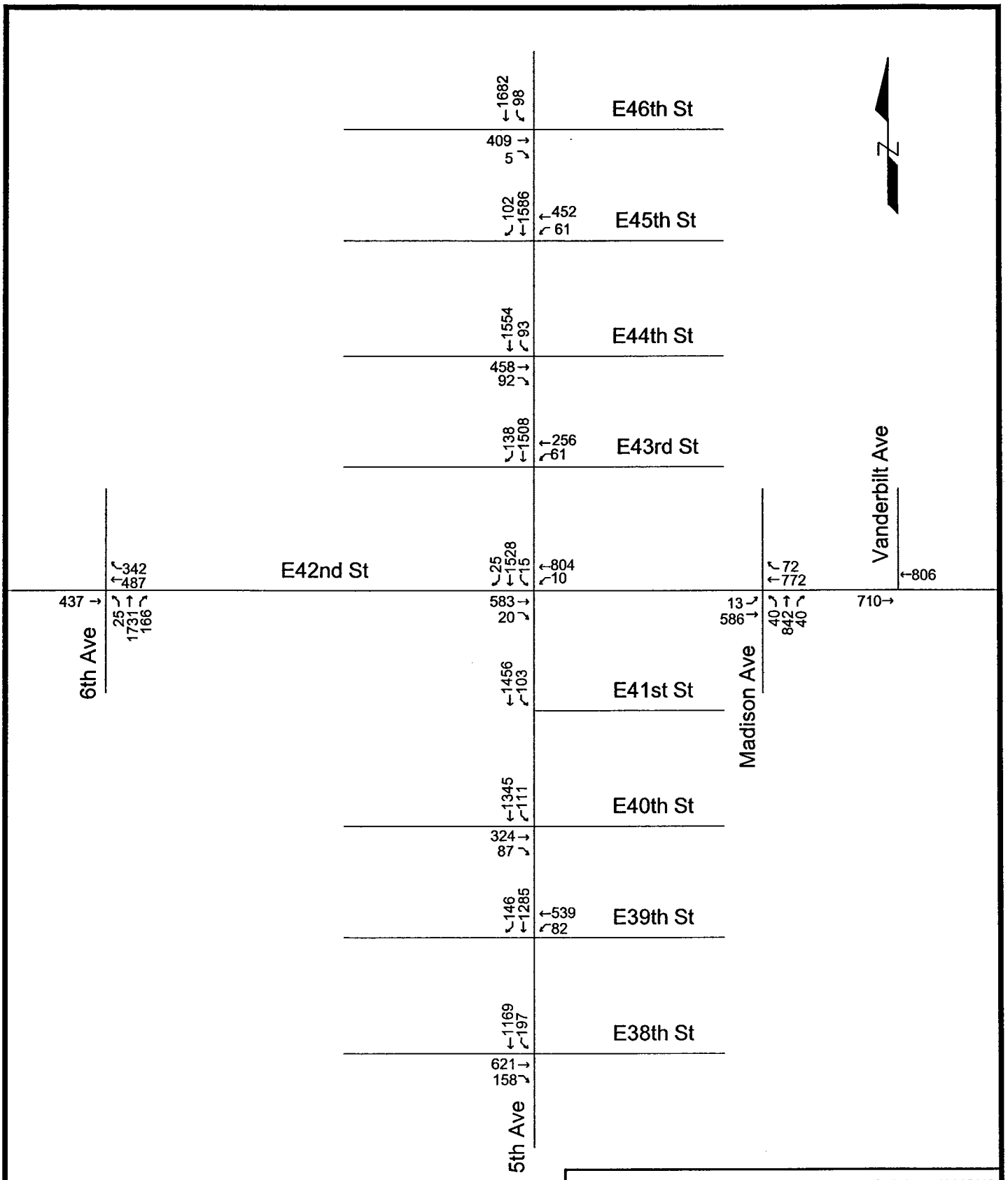


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-75

Not to Scale

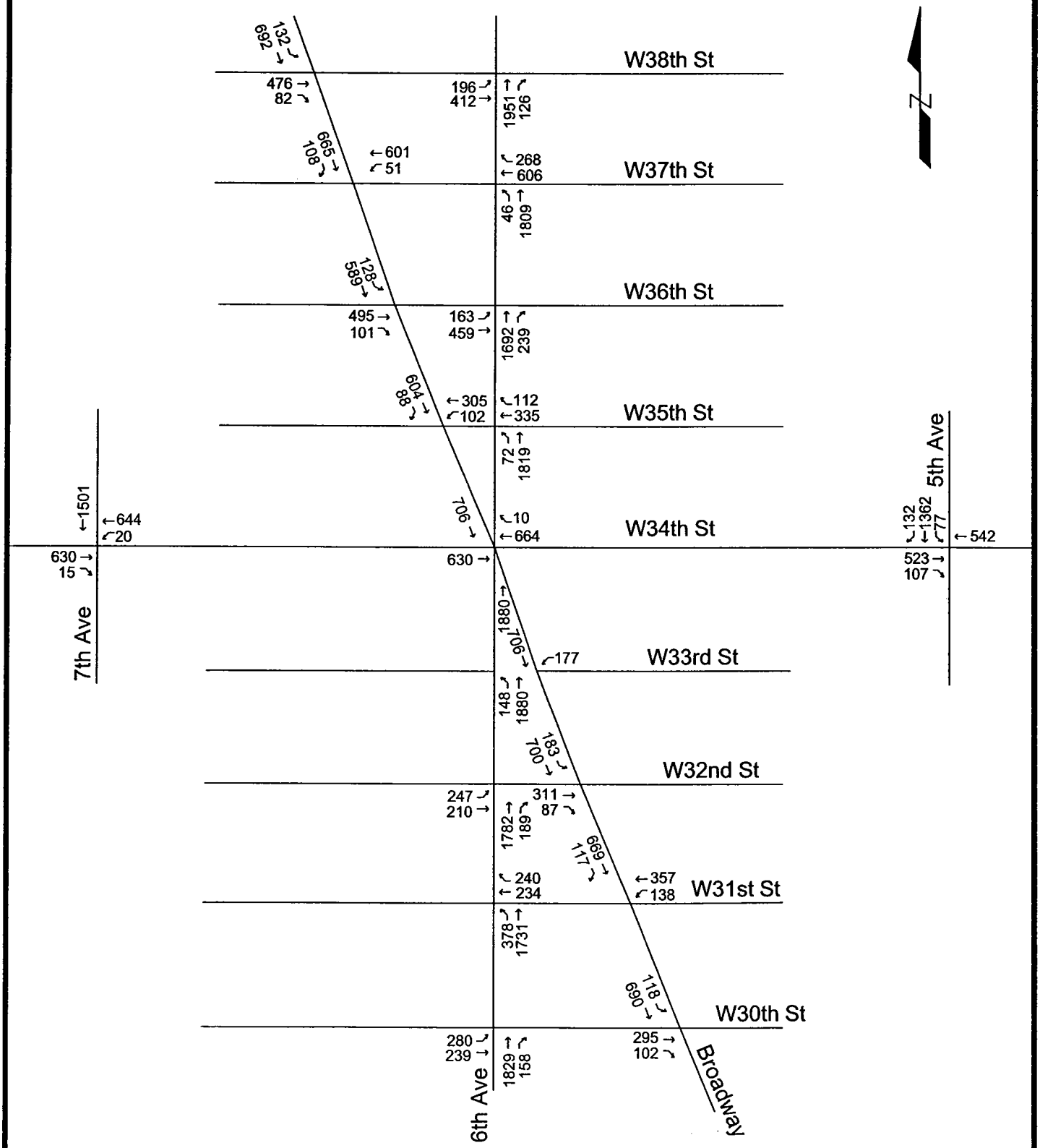


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-76

Not to Scale

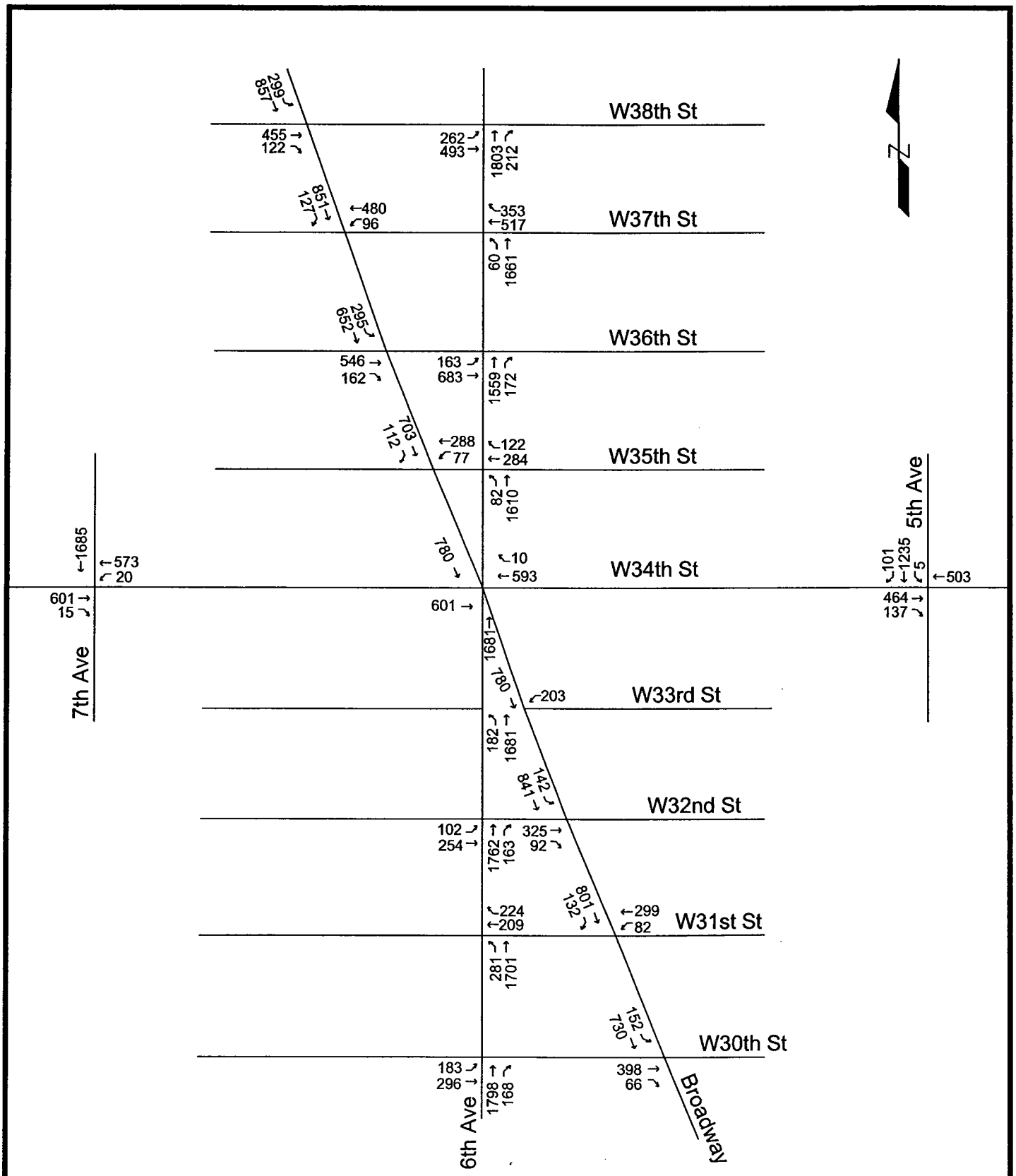


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-77

Not to Scale

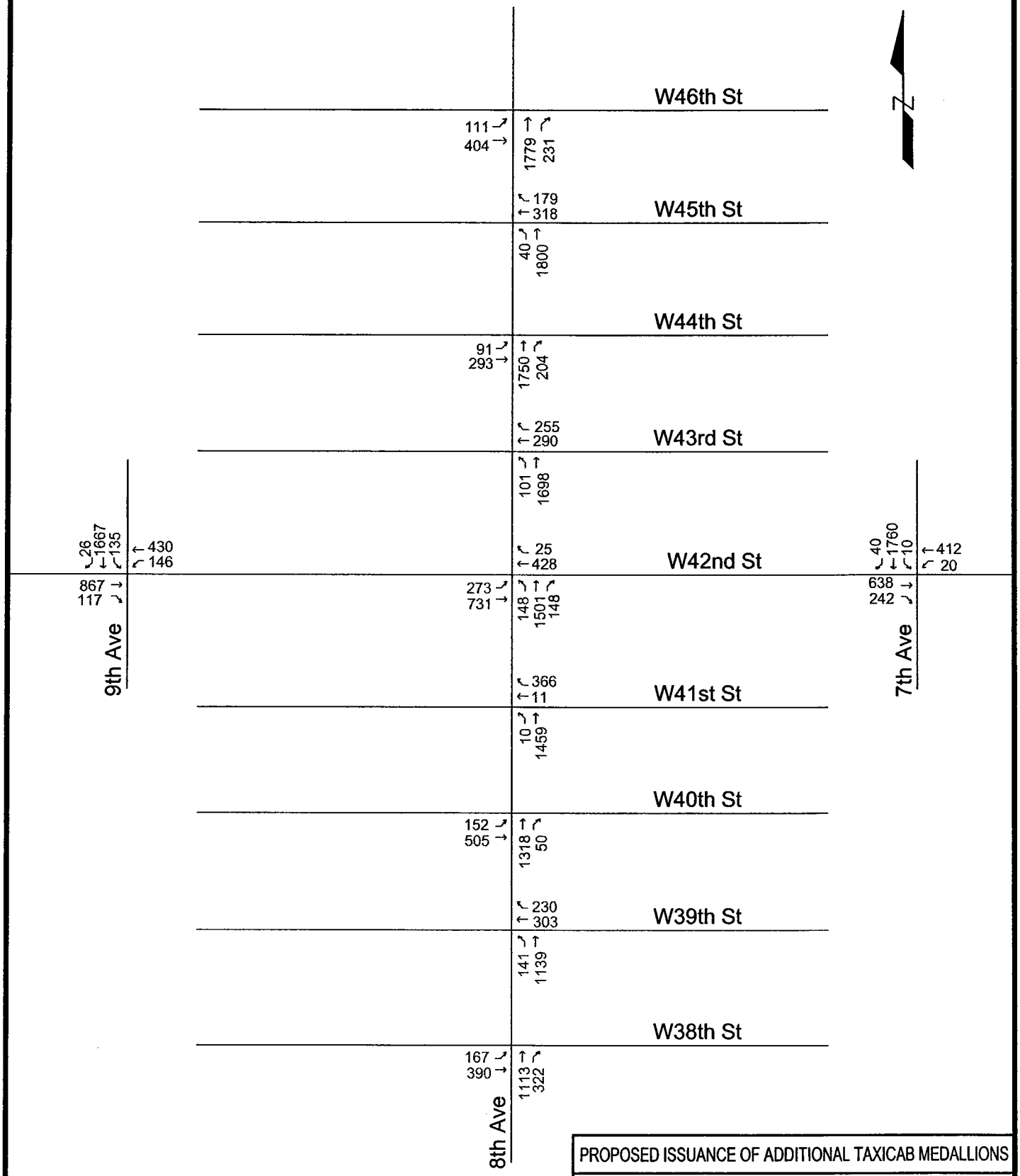


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-78

Not to Scale

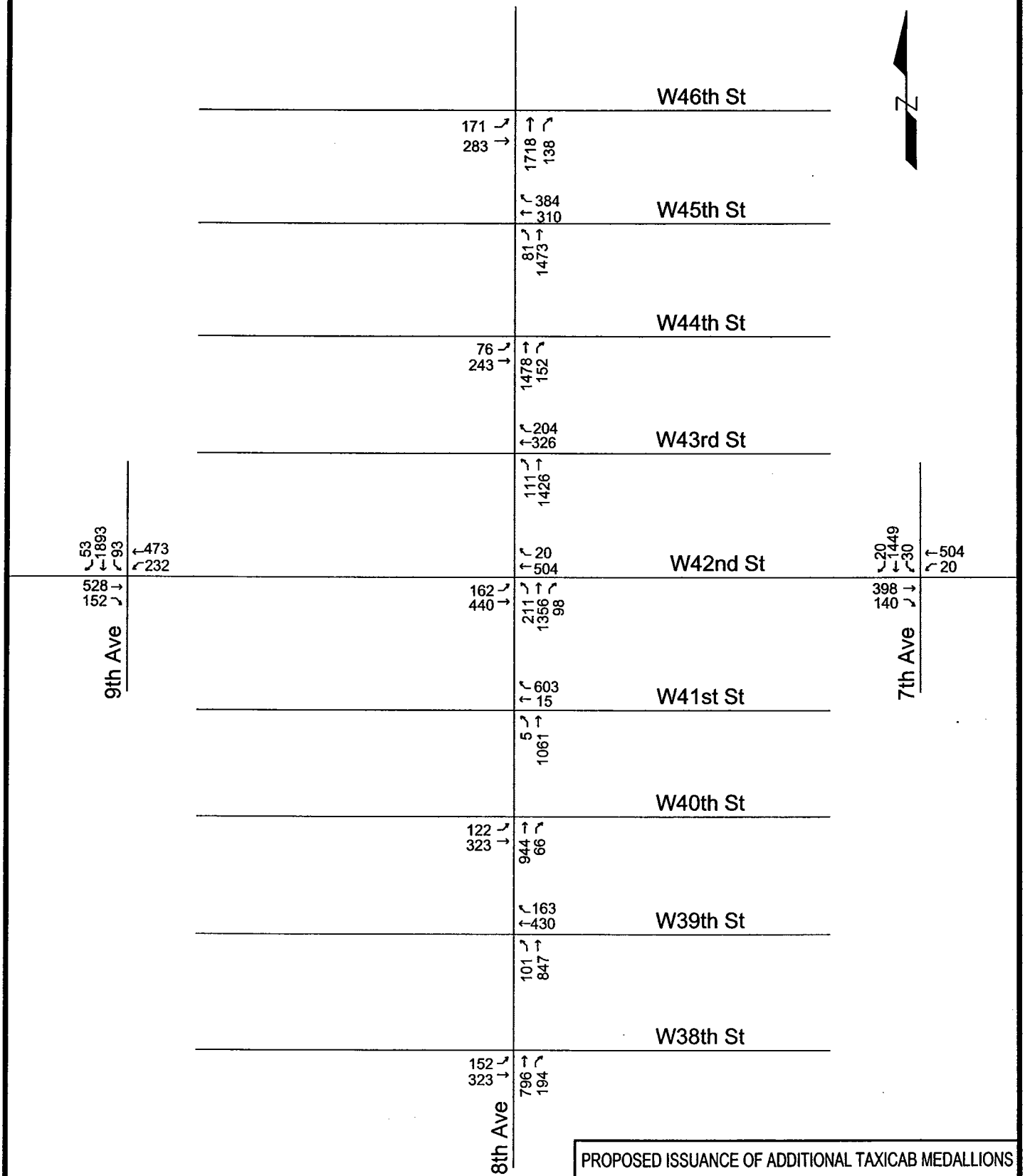


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-79

Not to Scale

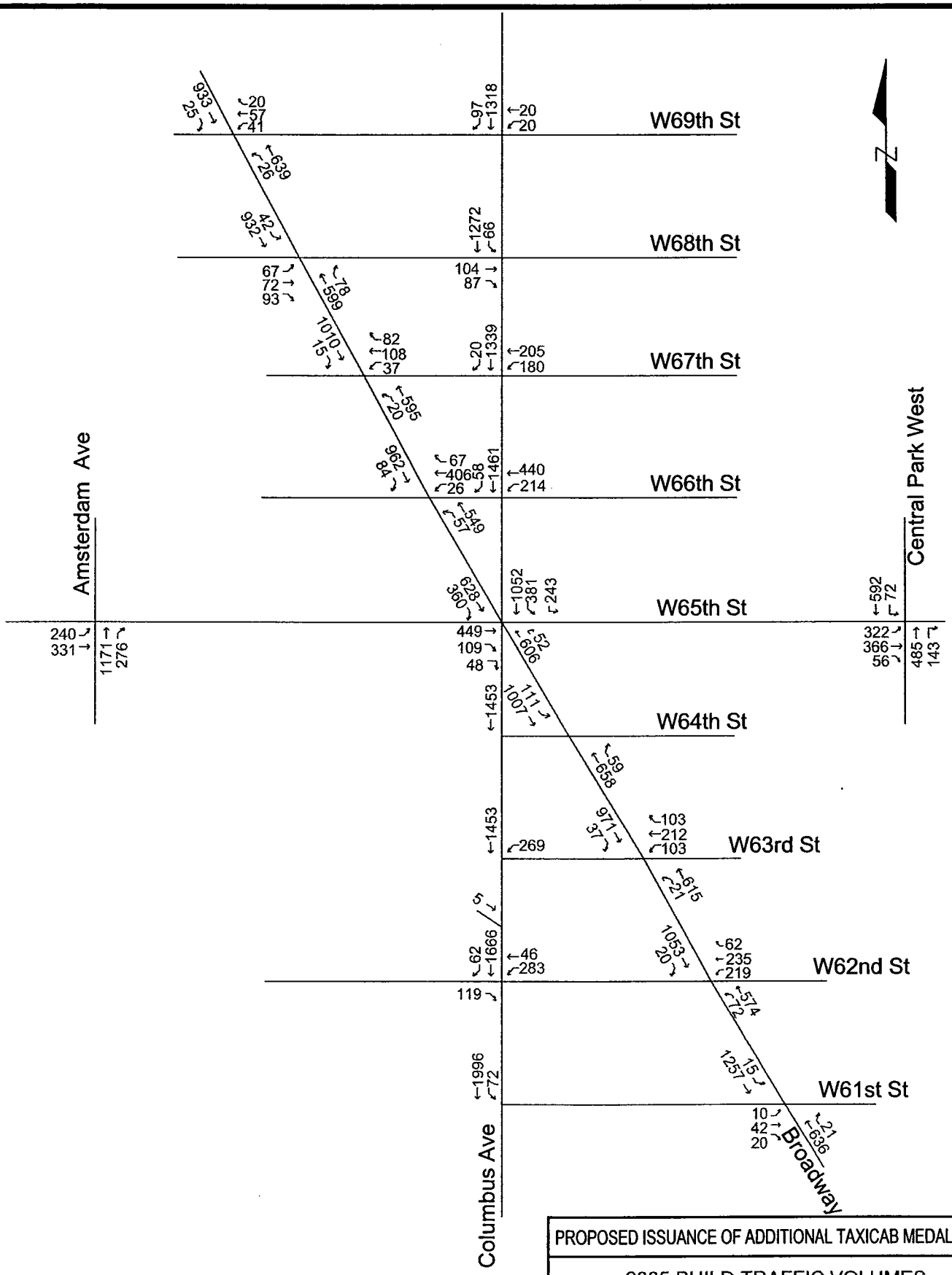


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2004 BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-80

Not to Scale

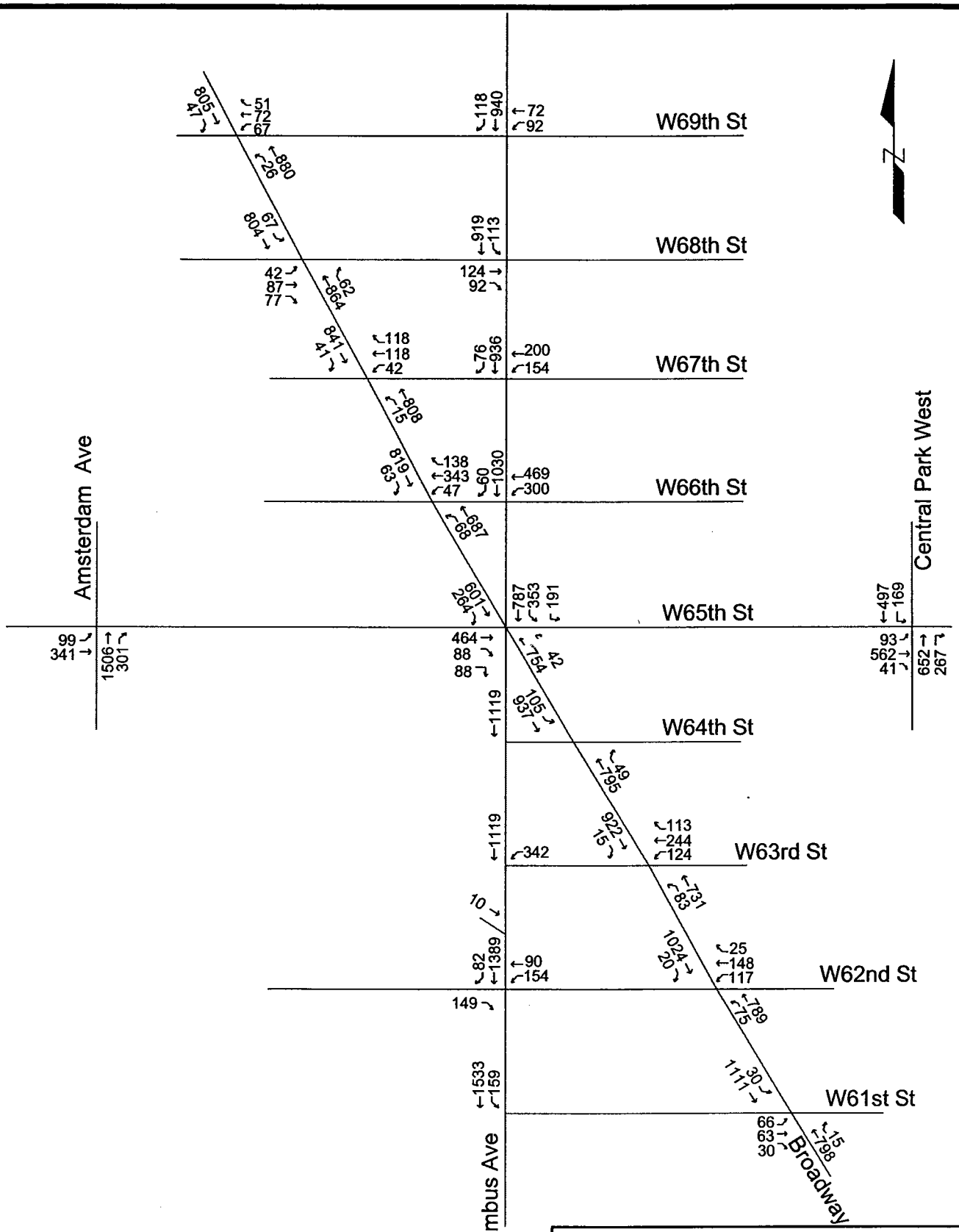


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-81

Not to Scale

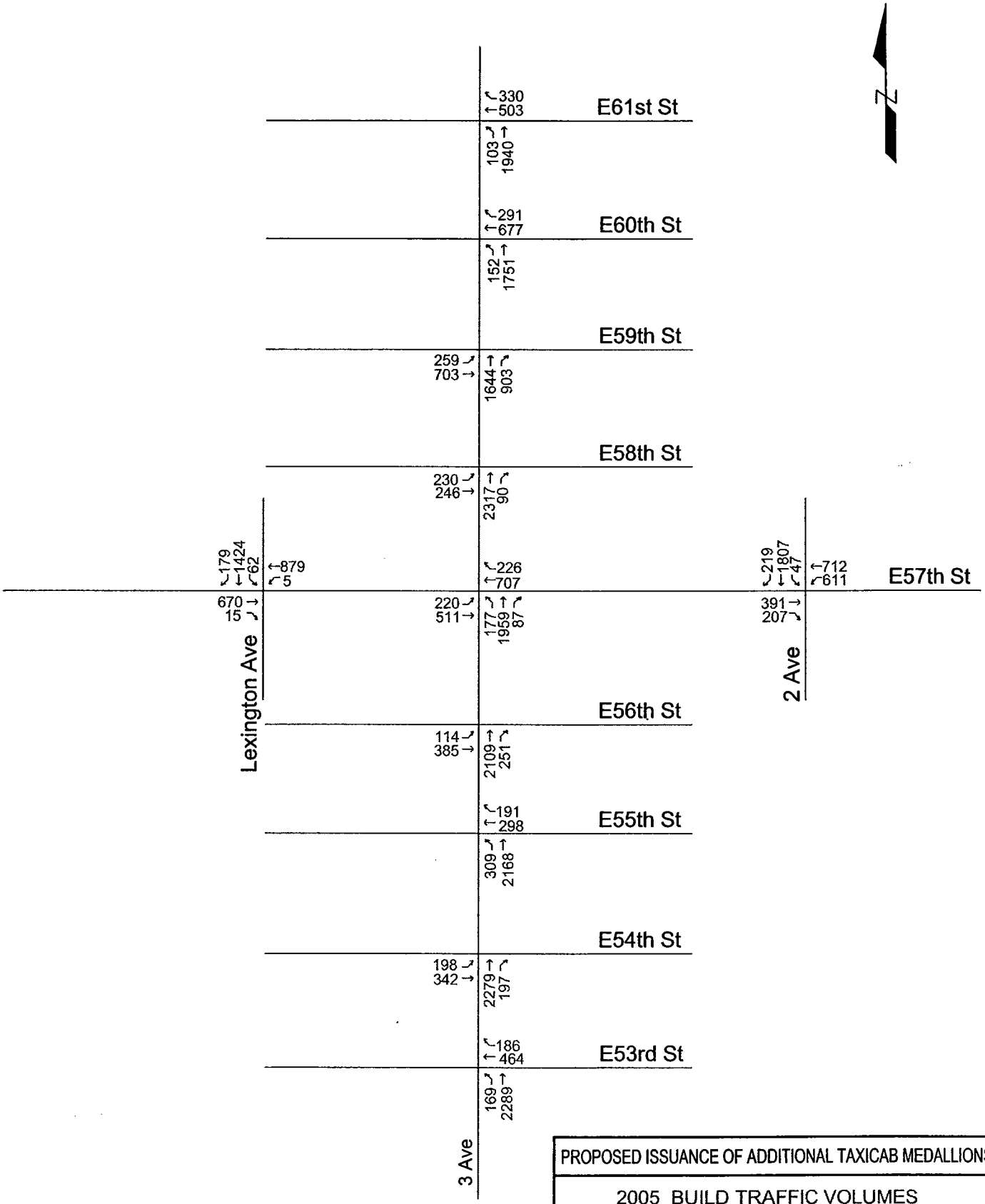


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-82

Not to Scale

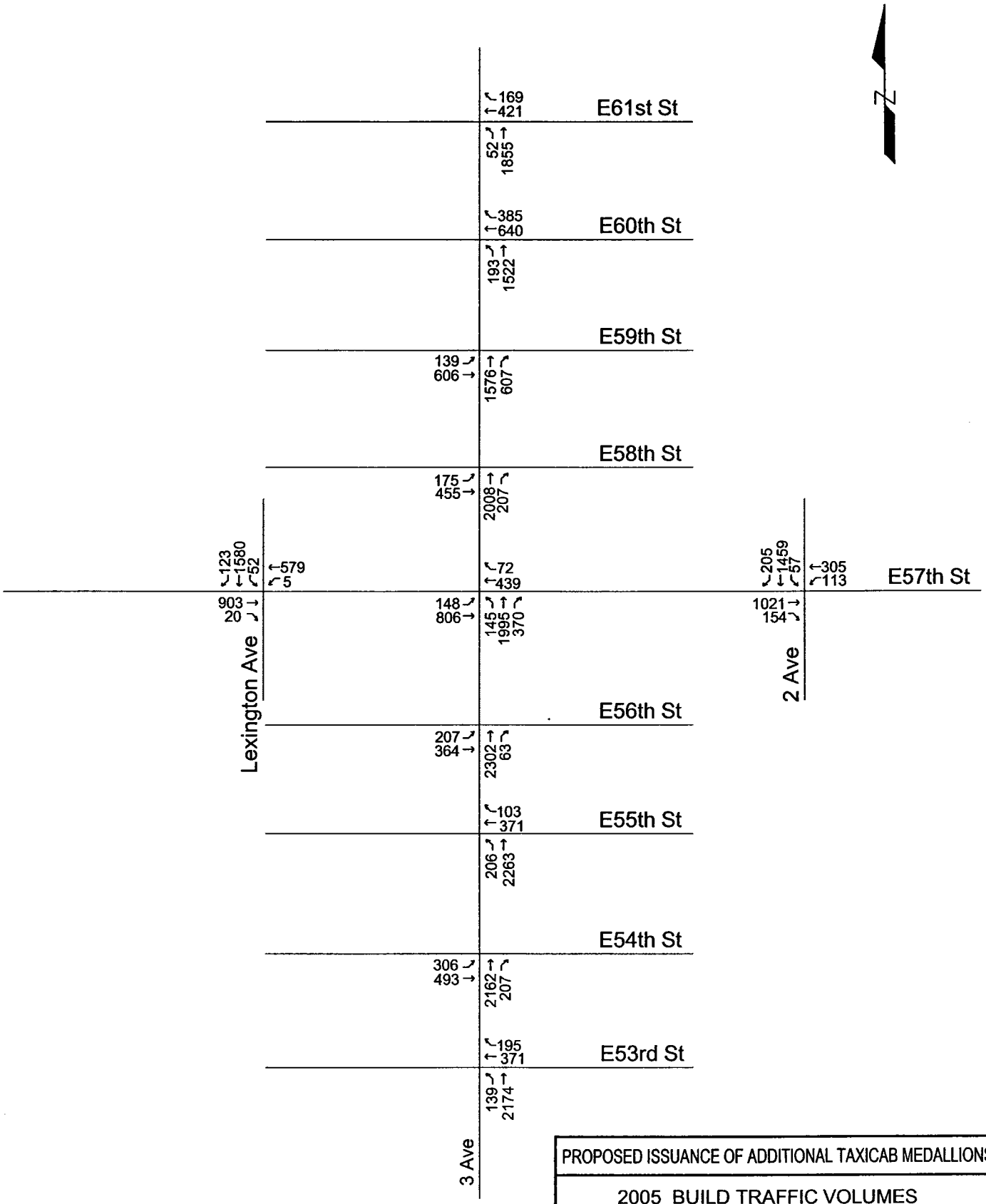


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-83

Not to Scale

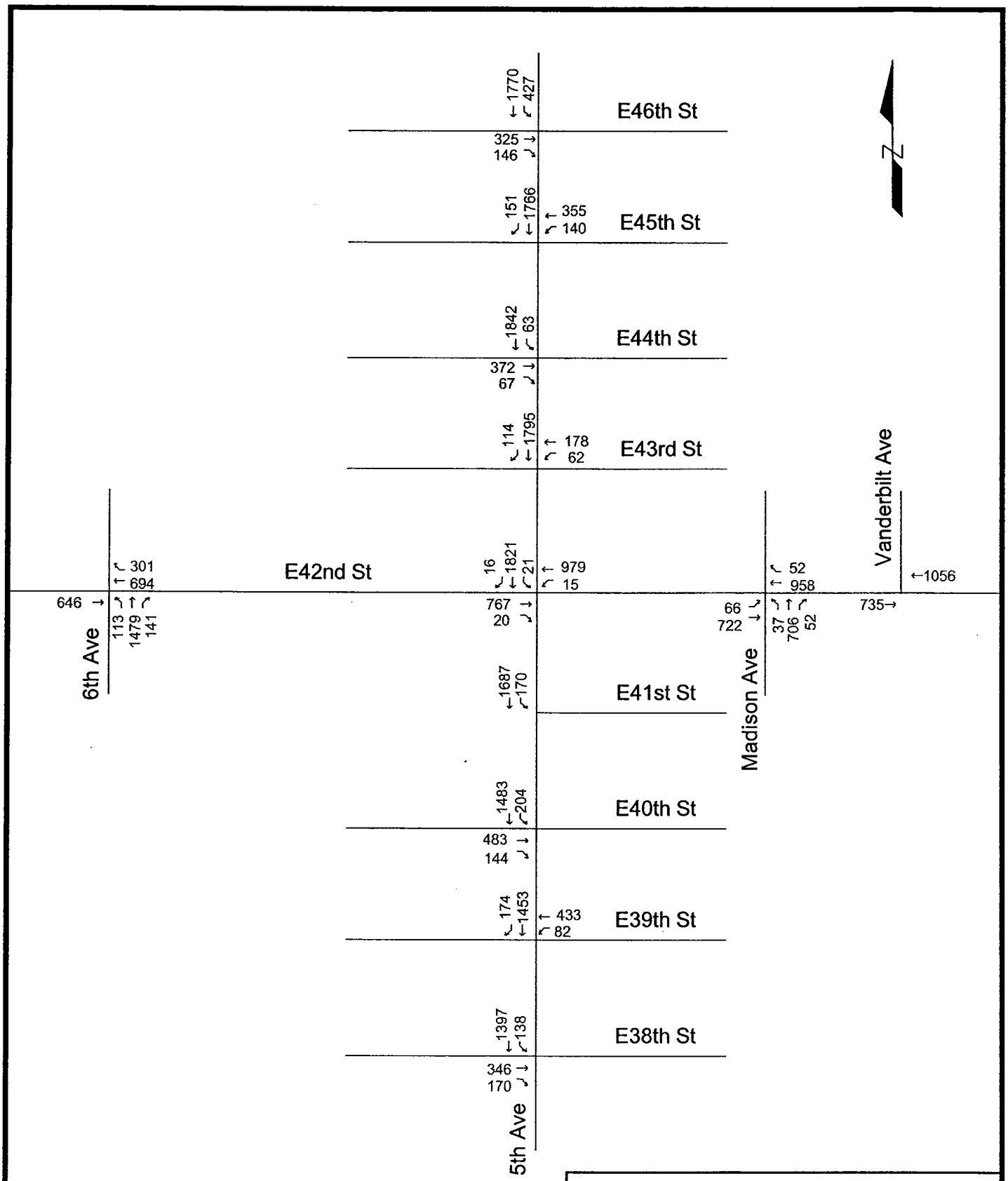


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-84

Not to Scale

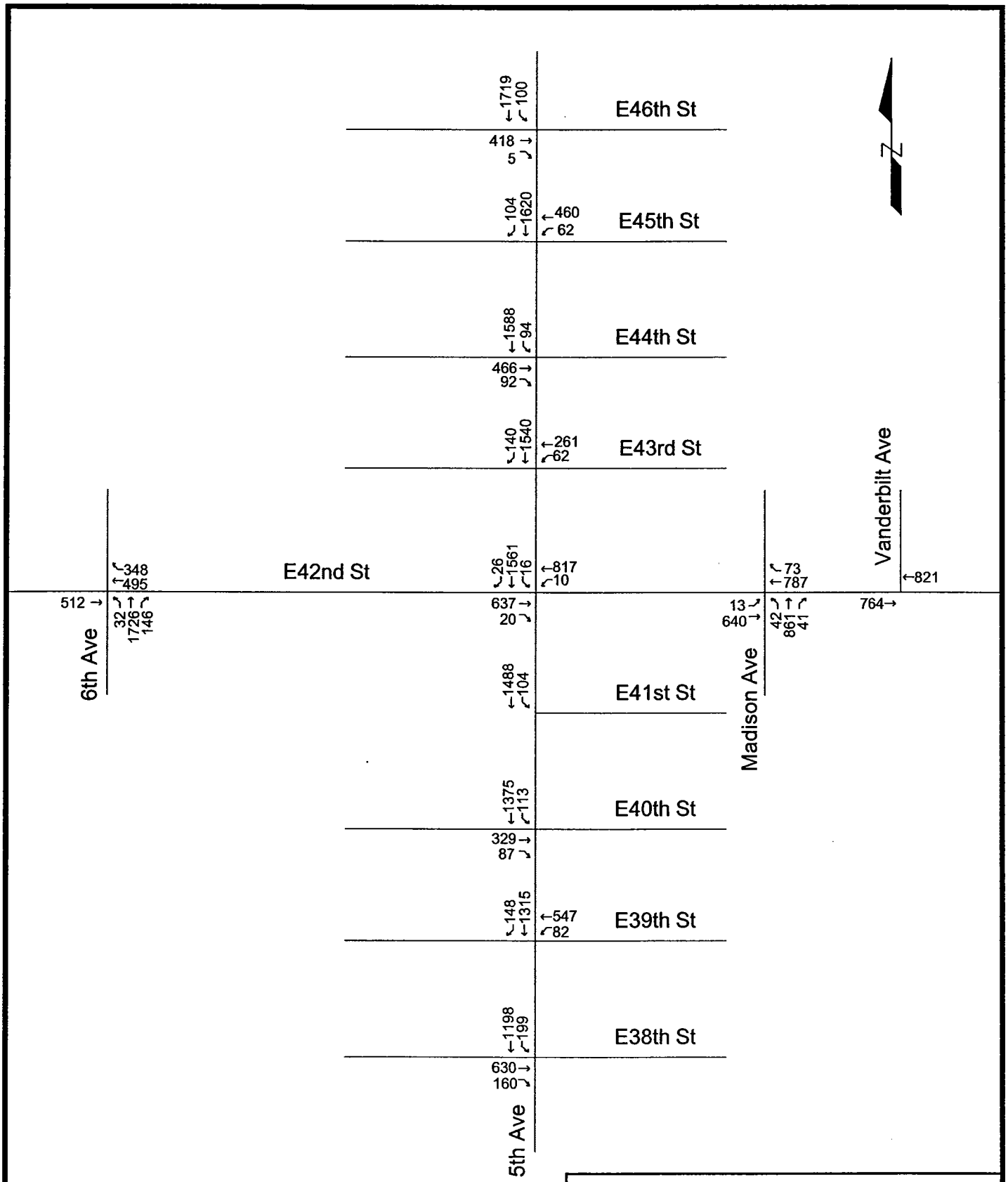


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-85

Not to Scale

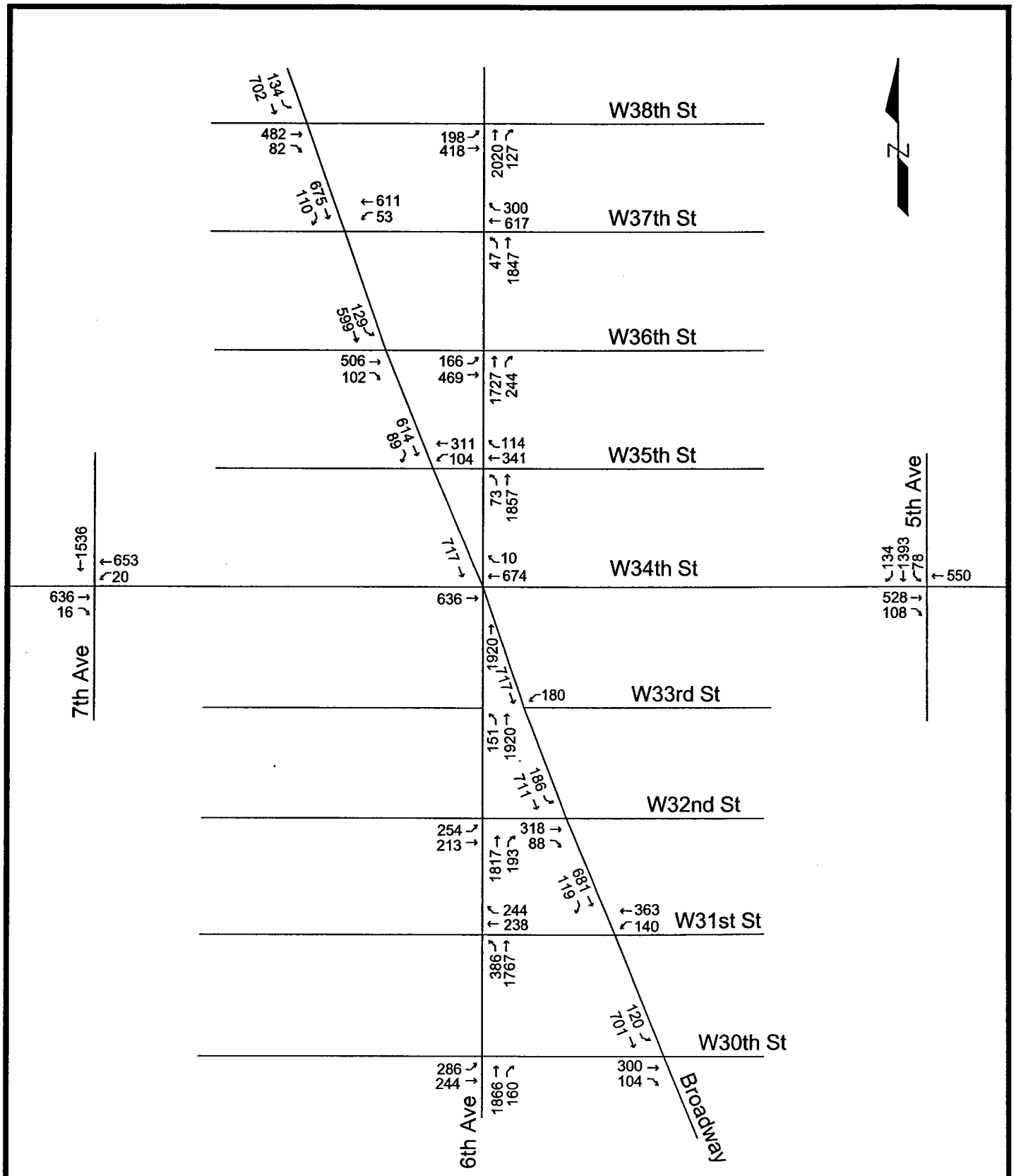


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-86

Not to Scale

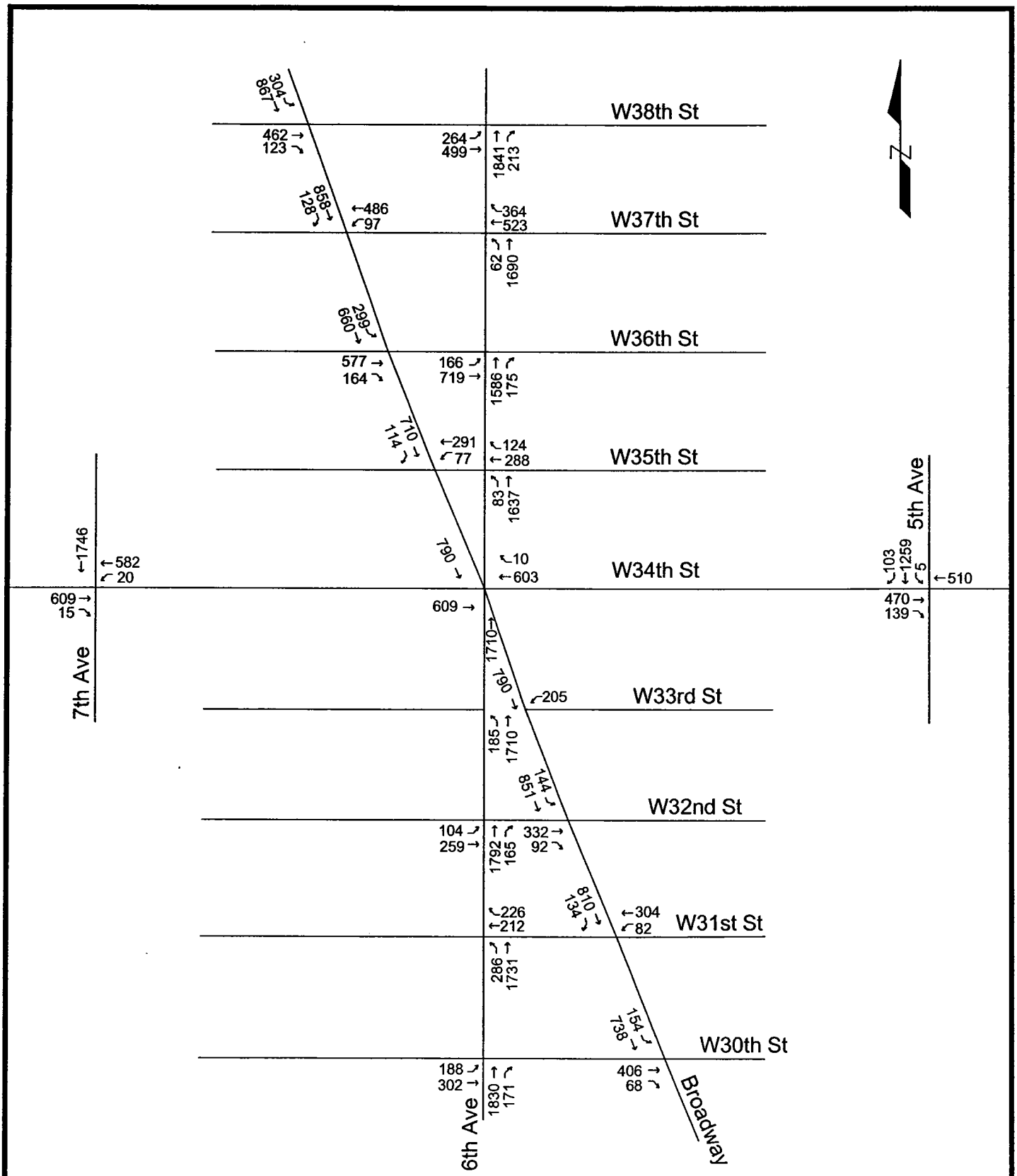


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-87

Not to Scale

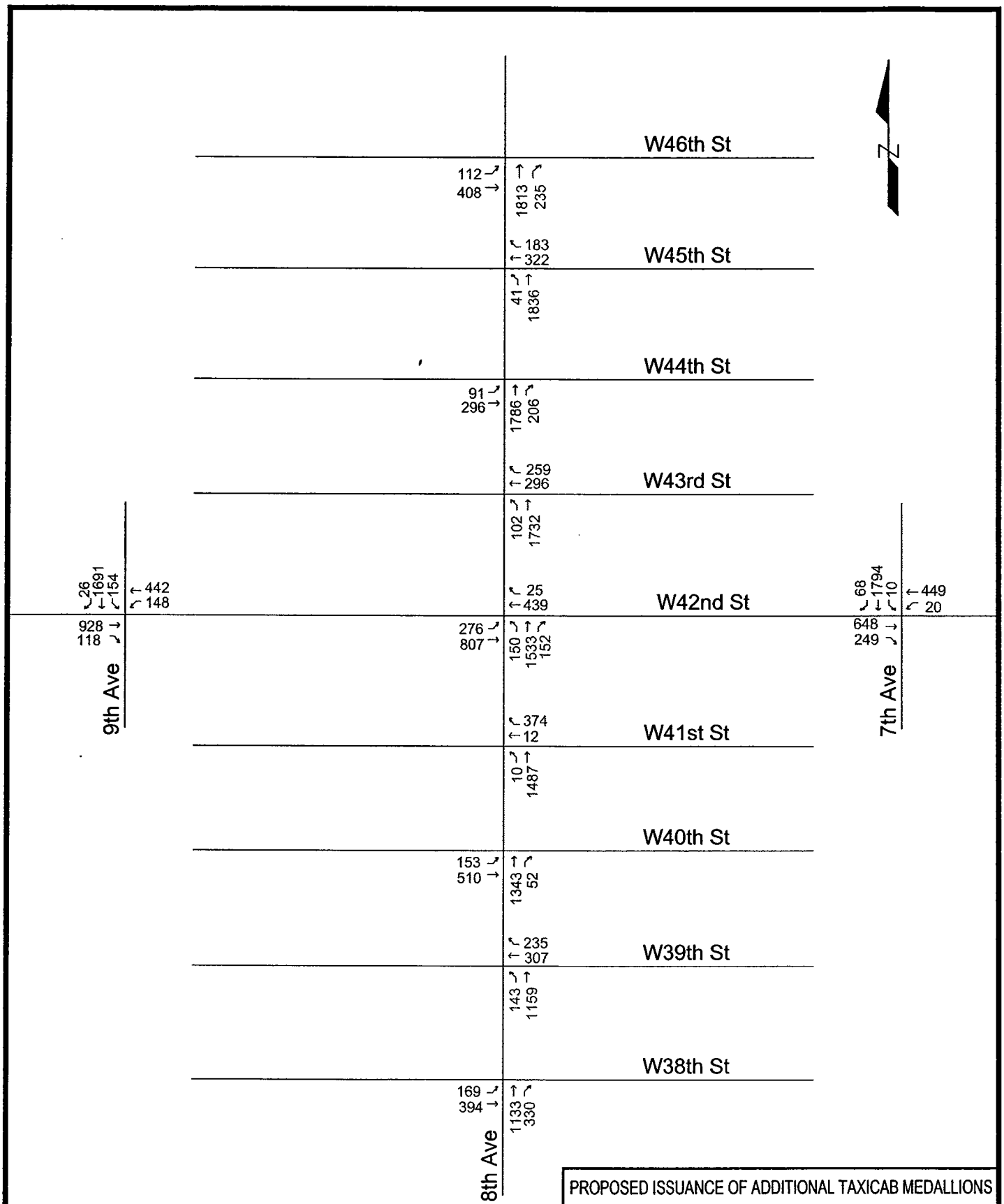


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-88

Not to Scale

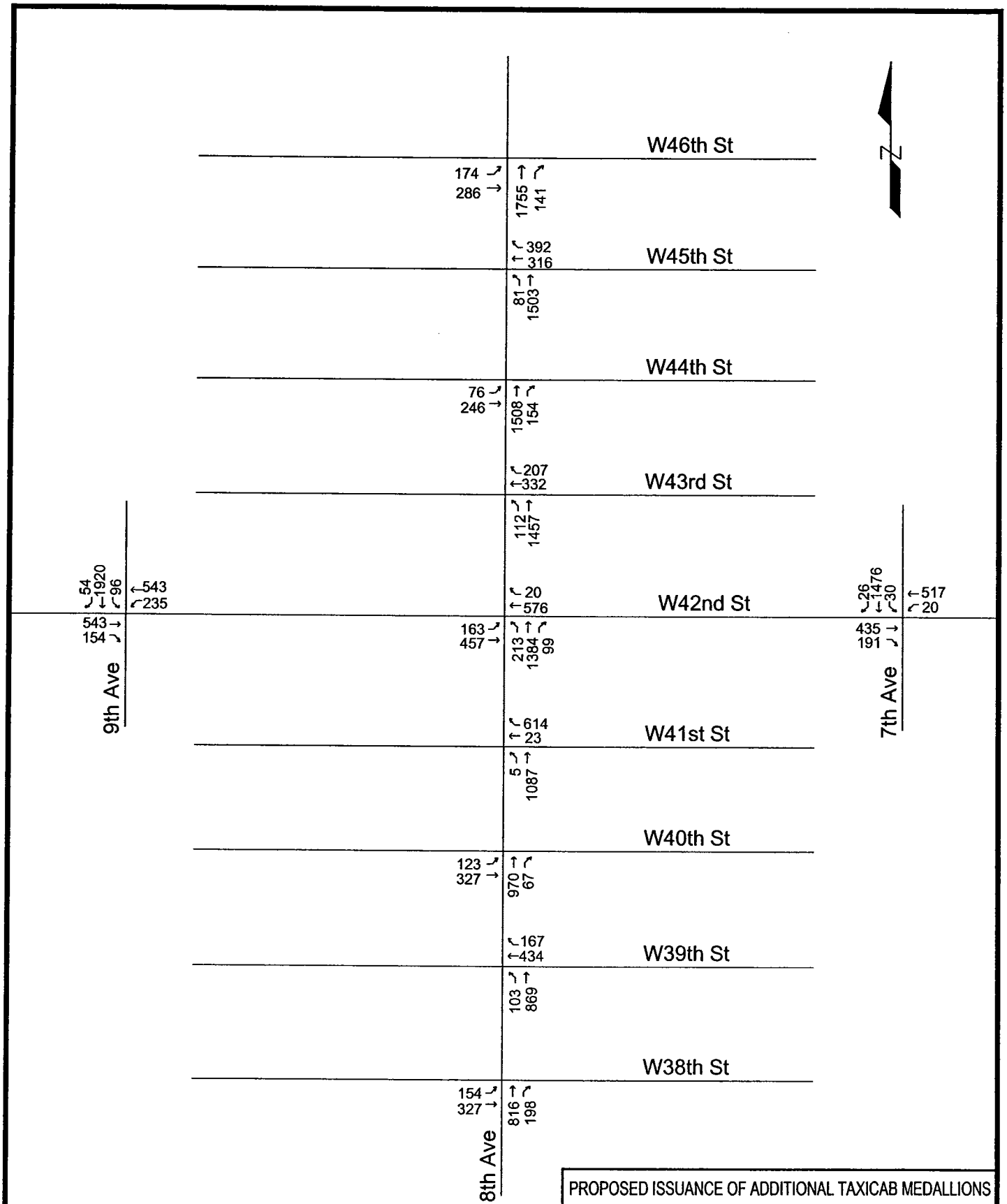


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-89

Not to Scale

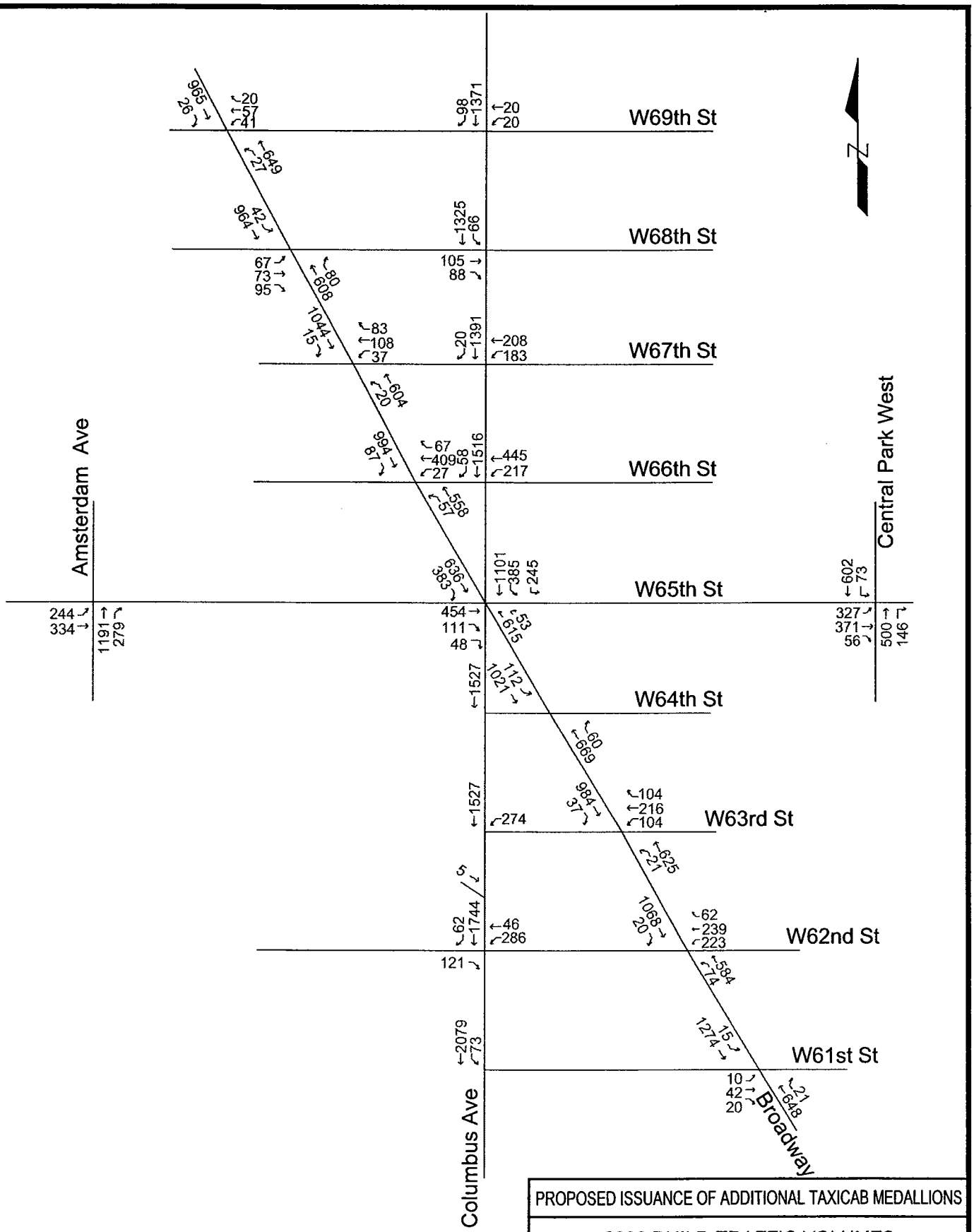


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2005 BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-90

Not to Scale

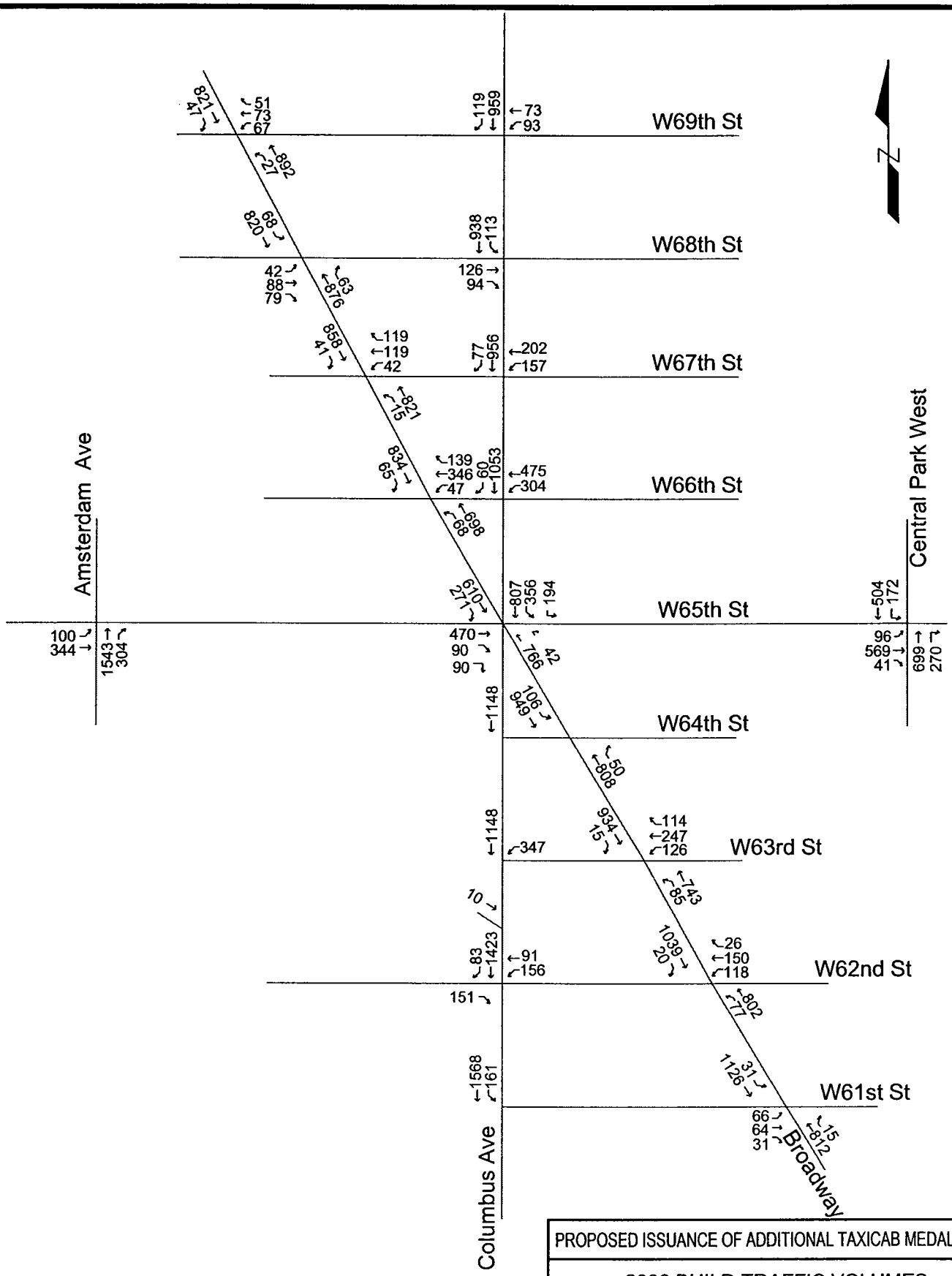


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-91

Not to Scale

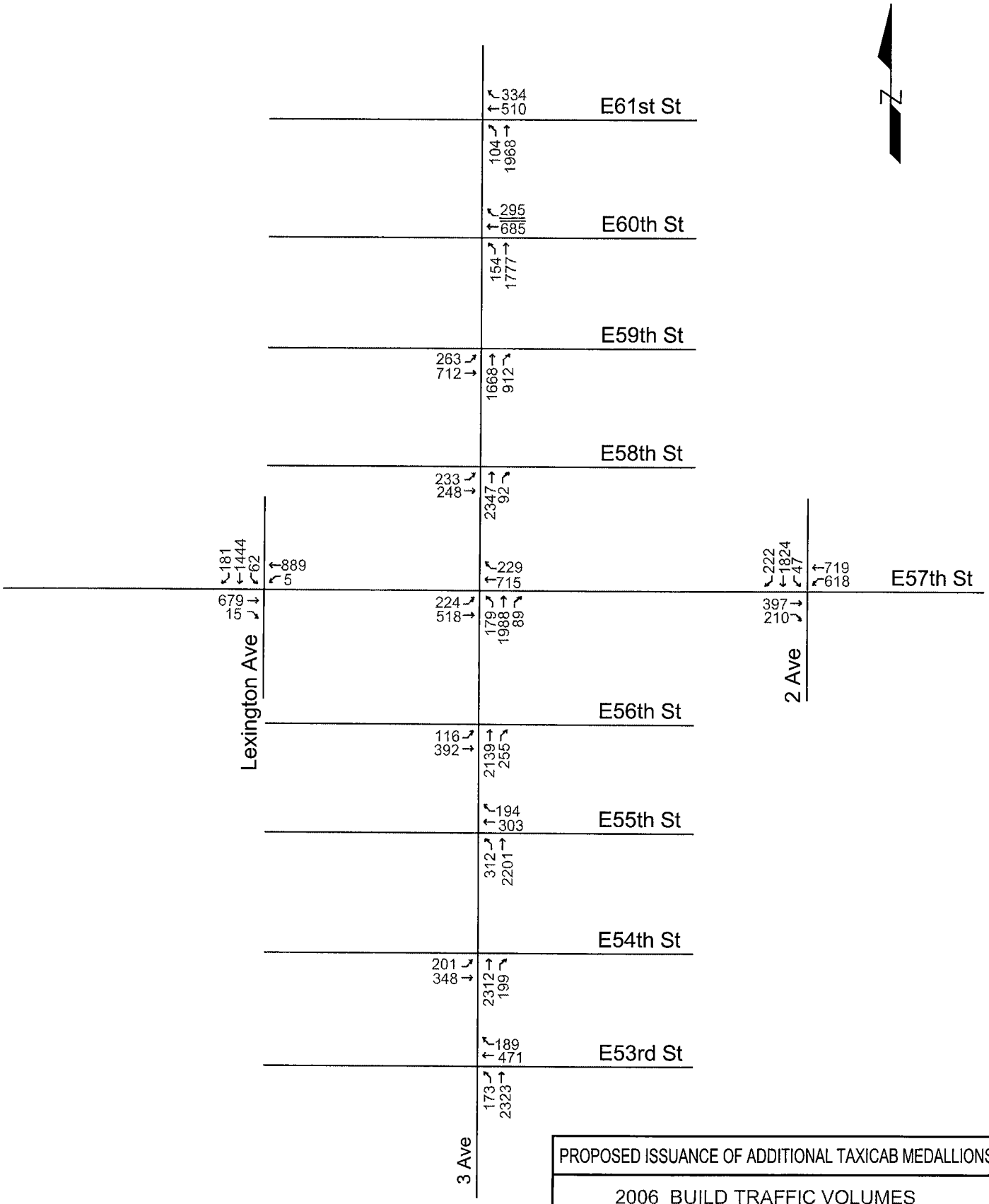


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-92

Not to Scale

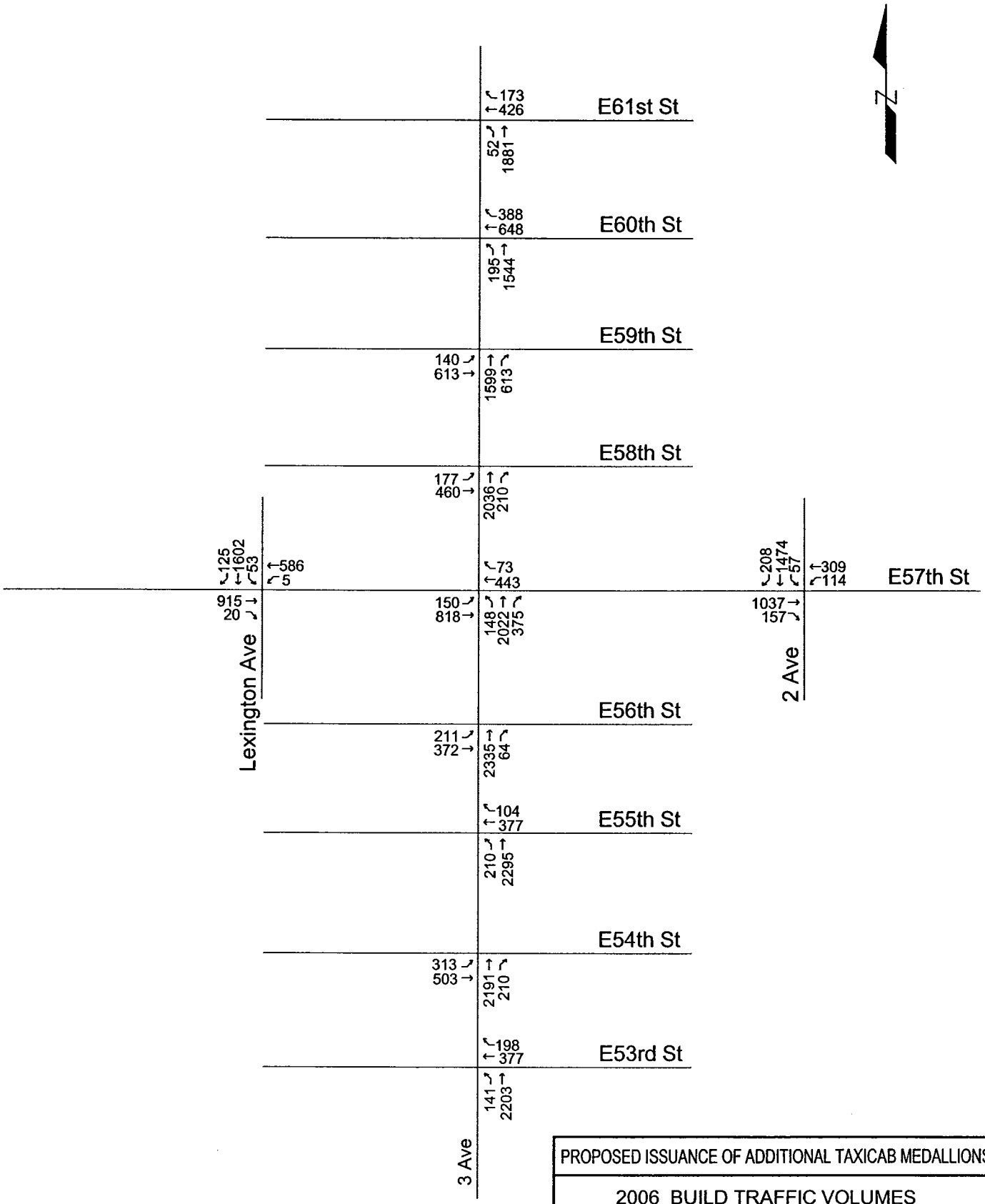


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-93

Not to Scale

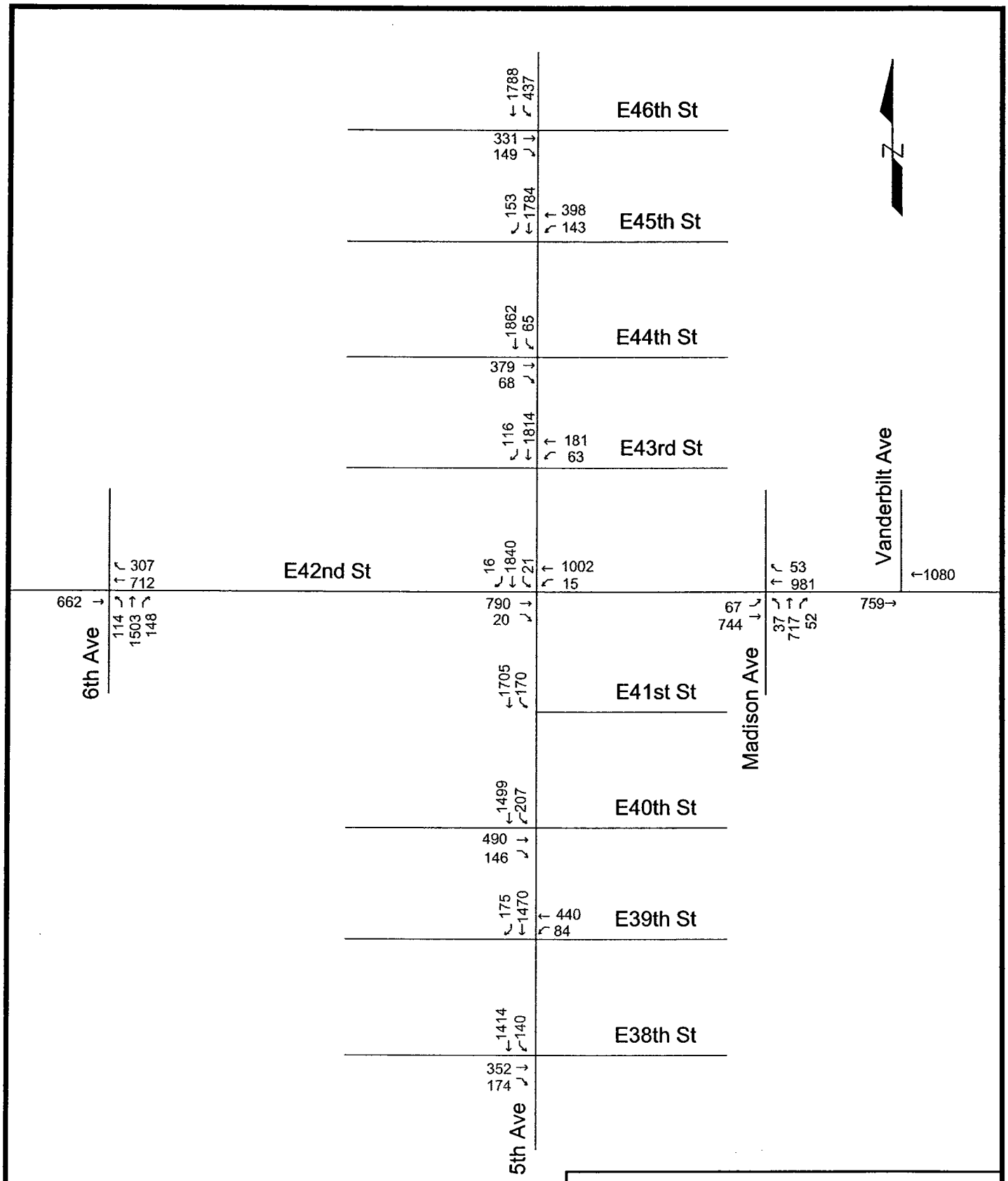


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-94

Not to Scale

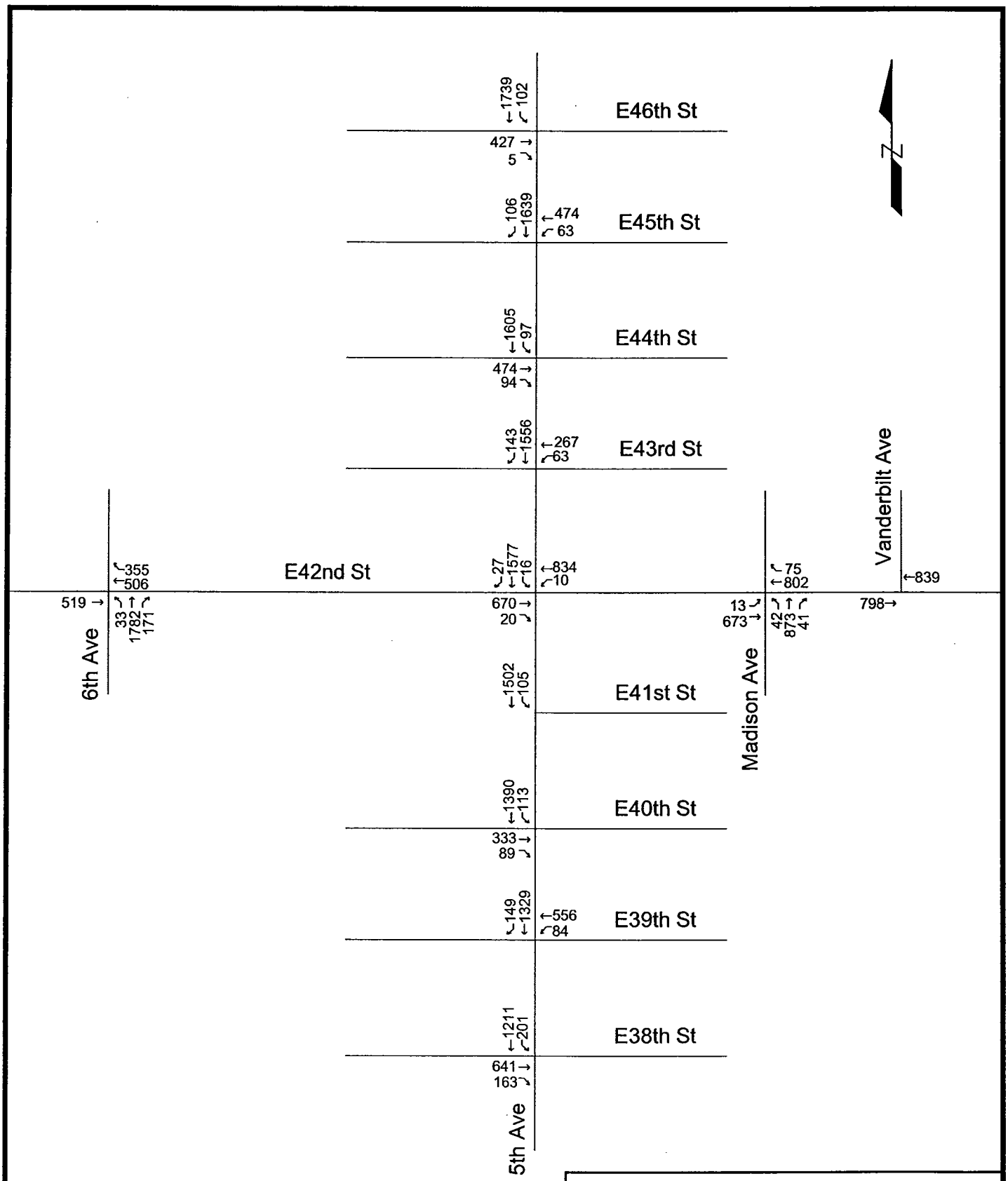


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-95

Not to Scale

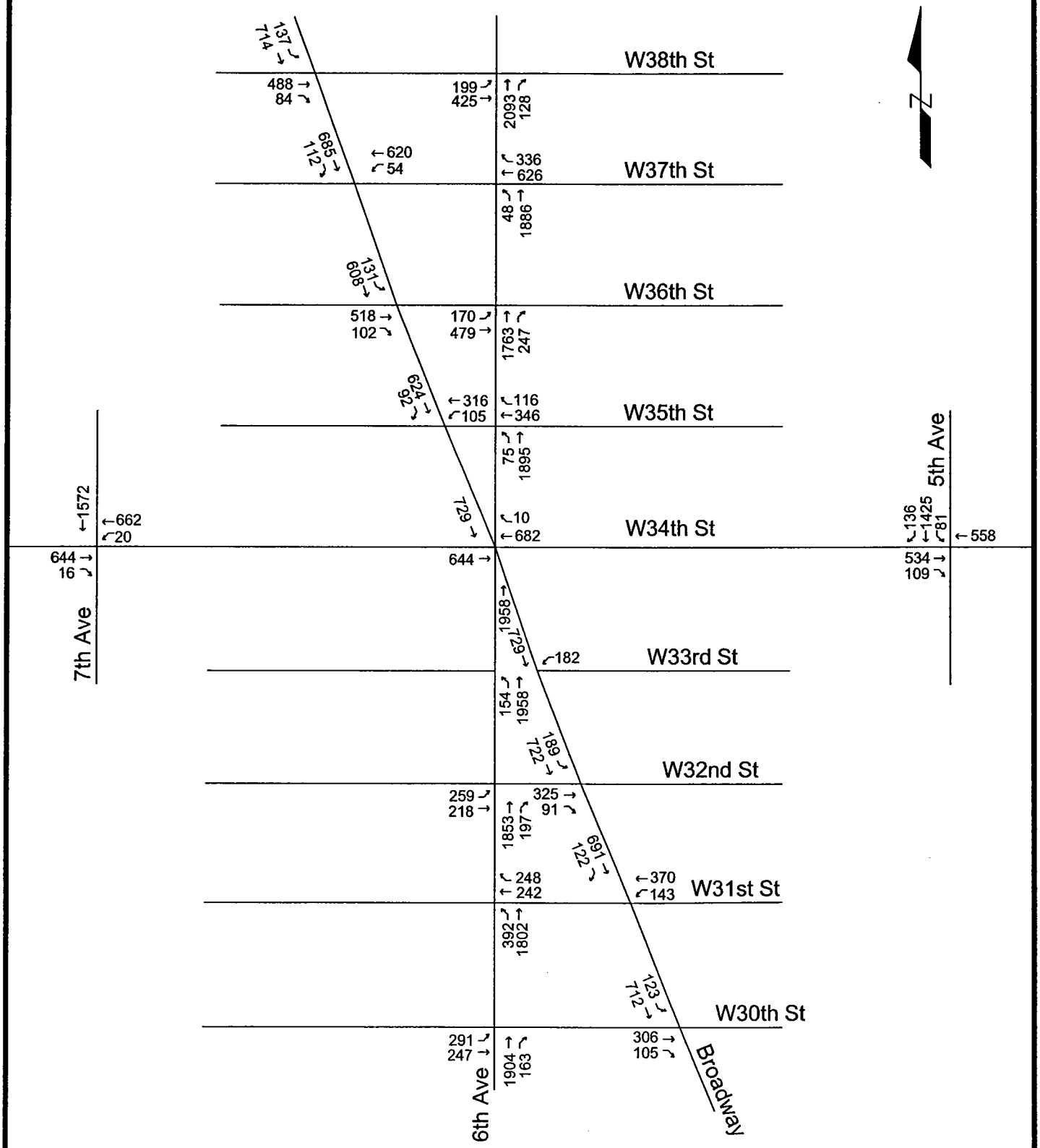


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-96

Not to Scale

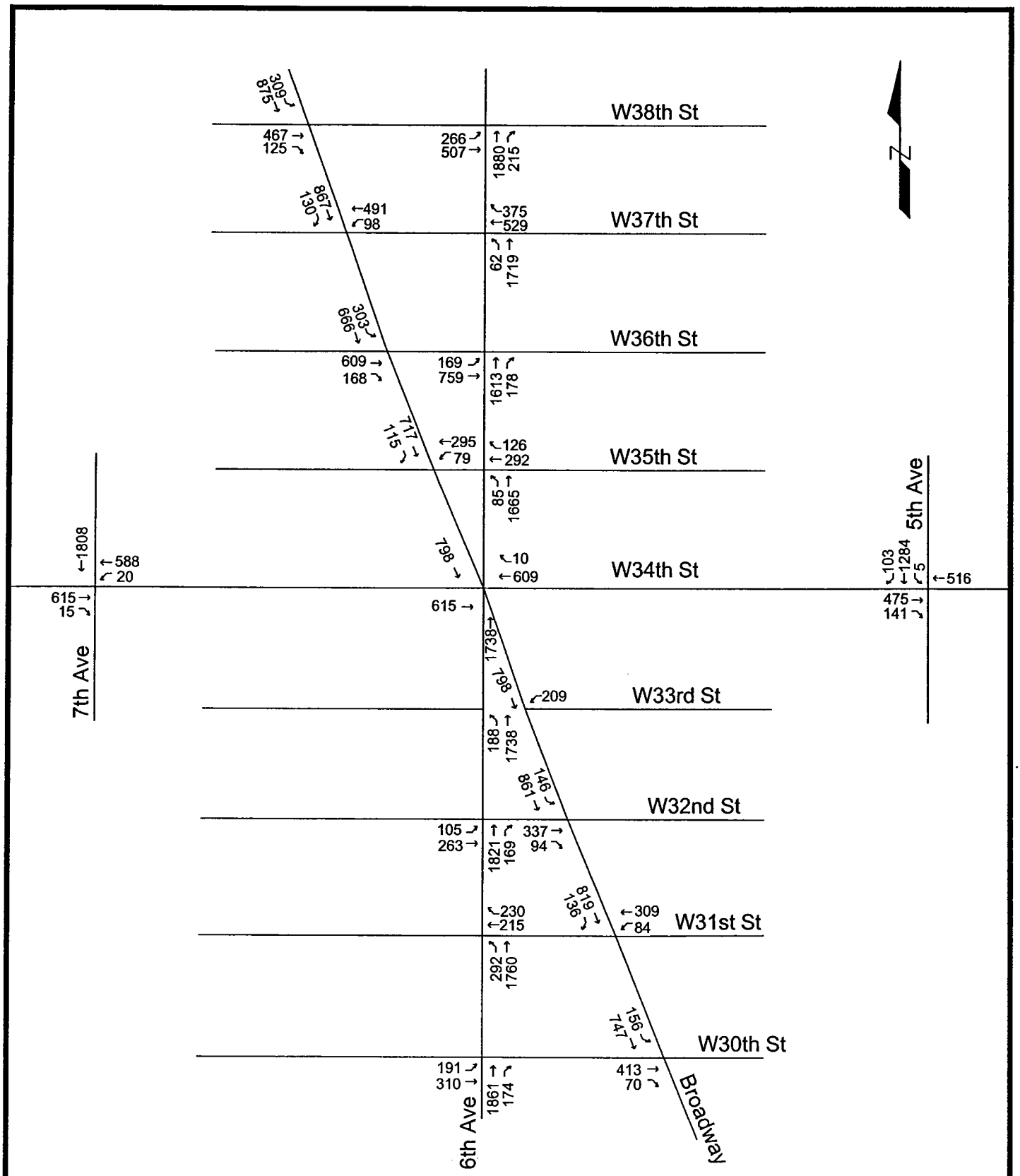


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-97

Not to Scale

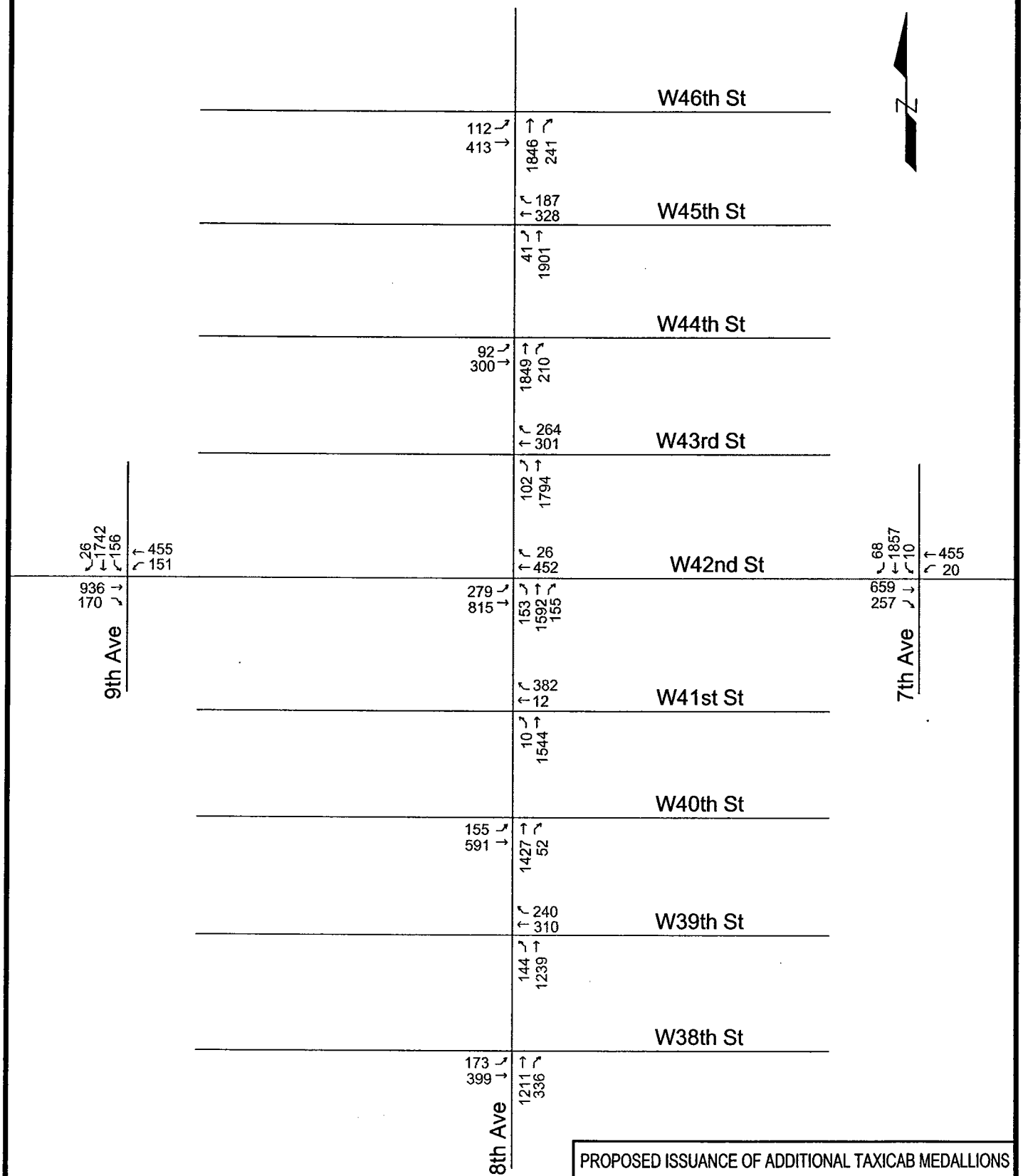


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-98

Not to Scale

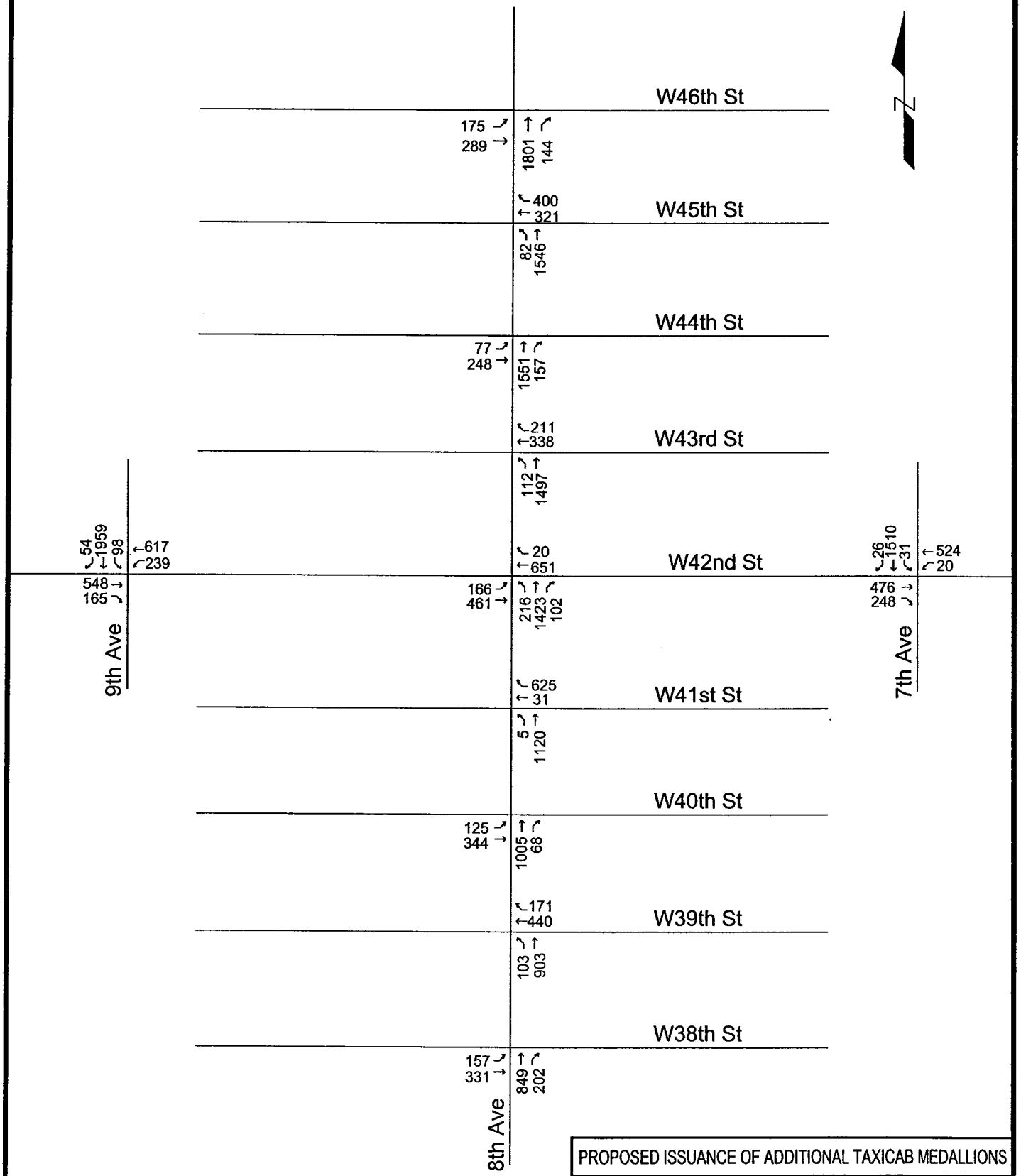


PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 BUILD TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR (7:45-8:45 AM)

Figure: A-99

Not to Scale



PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

2006 BUILD TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Figure: A-100

Not to Scale

Appendix B

Study Intersections Projected to be Mitigated by Reallocating One Second of Green Time

Traffic impacts associated with the proposed medallion increase at the following study intersection lane groups and/or approaches of the five key study areas are projected to be mitigated by reallocating of *one second* of green time:

Broadway/Columbus Avenue/West 65th Street Study Area

Broadway/West 62nd Street

- In 2005, delays on the westbound approach during the weekday AM peak hour are projected to increase from 90.7 seconds/vehicle (LOS F) under no-build conditions to 95.4 seconds/vehicle (LOS F) under build conditions. *Reallocate one (1) second of green time from the northbound/southbound phase to the westbound phase during the weekday AM peak hour.*

- In 2006, delays on the westbound approach during the weekday AM peak hour are projected to increase from 93.3 seconds/vehicle (LOS F) under no-build conditions to 101.6 seconds/vehicle (LOS F) under build conditions. *Reallocate one (1) second of green time from the northbound/southbound phase to the westbound phase during the weekday AM peak hour.*

Central Park West/West 65th Street

- In 2006, weekday PM peak hour delays on the northbound approach are projected to increase from 52.7 seconds/vehicle (LOS D) under no-build conditions to 58.9 seconds/vehicle (LOS E) under build conditions. *Reallocate one (1) second of green time from the southbound leading phase to the northbound/southbound permitted phase during the weekday PM peak hour.*

3rd Avenue/East 57th Street Study Area

3rd Avenue/East 55th Street

- In 2005, weekday AM peak hour delays on the westbound approach are projected to increase from 66.5 seconds/vehicle (LOS E) under no-build conditions to 70.6 seconds/vehicle (LOS E) under build conditions. *Reallocate one (1) second of green time from the northbound phase to the westbound phase during the weekday AM peak hour.*

- In 2006, weekday AM peak hour delays on the westbound approach are projected to increase from 68.5 seconds/vehicle (LOS E) under no-build conditions to 76.1 seconds/vehicle (LOS E) under build conditions. In addition, weekday PM peak hour delays on the westbound approach are projected to increase from 63.3 seconds/vehicle (LOS E) under no-build conditions to 69.6 seconds/vehicle (LOS E) under build conditions. *Reallocate one (1) second of green time from the northbound phase to the westbound phase during the weekday AM and PM peak hours.*

3rd Avenue/East 56th Street

- In 2005, weekday PM peak hour delays on the eastbound approach are projected to increase from 64.6 seconds/vehicle (LOS E) under no-build conditions to 70.5 seconds/vehicle (LOS E) under build conditions. *Reallocate one (1) second of green time from the northbound phase to the eastbound phase during the weekday PM peak hour.*

- In 2006, weekday AM peak hour delays on the eastbound approach are projected to increase from 53.1 seconds/vehicle (LOS D) under no-build conditions to 61.5 seconds/vehicle (LOS E) under build conditions. *Reallocate one (1) second of green time from the northbound phase to the eastbound phase during the weekday AM peak hour.*

3rd Avenue/East 57th Street

- In 2004, weekday AM peak hour delays for eastbound through movements are projected to increase from 88.9 seconds/vehicle (LOS F) under no-build conditions to 93.7 seconds/vehicle (LOS F) under build conditions. *Reallocate one (1) second of green time from the northbound phase to the eastbound/westbound phase during the weekday AM peak hour.*

- In 2005, weekday AM peak hour delays for eastbound through movements are projected to increase from 98.7 seconds/vehicle (LOS F) under no-build conditions to 107.9 seconds/vehicle (LOS F) under build conditions. In addition, weekday PM peak hour delays on the eastbound approach are projected to increase from 62.4 seconds/vehicle (LOS E) under no-build conditions to 67.0 seconds/vehicle (LOS E) under build conditions. *Reallocate one (1) second of green time from pedestrian phase to the eastbound/westbound phase during the weekday AM and PM peak hour.*

- In 2006, weekday AM peak hour delays for eastbound through movements are projected to increase from 103.8 seconds/vehicle (LOS F) under no-build conditions to 118.9 seconds/vehicle (LOS F) under build conditions. In addition, weekday AM peak hour delays on the northbound shared left/through/right-turn approach are projected to increase from 39.8 seconds/vehicle (LOS D) under no-build conditions to 45.3 seconds/vehicle (LOS D) under build conditions. *Reallocate one (1) second of green time from pedestrian phase to the eastbound/westbound phase during the weekday AM peak hour.*

- In 2006, weekday PM peak hour delays on the eastbound approach are projected to increase from 65.2 seconds/vehicle (LOS E) under no-build conditions to 73.1 seconds/vehicle (LOS E) under build conditions. In addition, weekday PM peak hour delays in the northbound exclusive right-turn lane are projected to increase from 63.5 seconds/vehicle (LOS E) under no-build conditions to 67.9

seconds/vehicle (LOS E) under build conditions. *Reallocate one (1) second of green time from pedestrian phase to the eastbound/westbound phase during the weekday PM peak hour.*

3rd Avenue/East 61st Street

- In 2005, weekday AM peak hour delays on the westbound approach are projected to increase from 58.5 seconds/vehicle (LOS E) under no-build conditions to 62.7 seconds/vehicle (LOS E) under build conditions. *Reallocate one (1) second of green time from the northbound phase to the westbound phase during the weekday AM peak hour.*

- In 2006, weekday AM peak hour delays on the westbound approach are projected to increase from 60.6 seconds/vehicle (LOS E) under no-build conditions to 66.3 seconds/vehicle (LOS E) under build conditions. *Reallocate one (1) second of green time from the northbound phase to the westbound phase during the weekday AM peak hour.*

2nd Avenue/East 57th Street

- In 2004, weekday AM peak hour delays for eastbound right-turns are projected to increase from 103.0 seconds/vehicle (LOS F) under no-build conditions to 106.2 seconds/vehicle (LOS F) under build conditions. *Reallocate one (1) second of green time from the southbound phase to the eastbound/westbound phase during the weekday AM peak hour.*

- In 2005, weekday AM peak hour delays for eastbound right-turns are projected to increase from 104.6 seconds/vehicle (LOS F) under no-build conditions to 111.1 seconds/vehicle (LOS F) under build conditions. In addition, weekday AM peak hour delays for westbound left-turns are projected to increase from 77.3 seconds/vehicle (LOS E) under no-build conditions to 82.7 seconds/vehicle (LOS F) under build conditions. *Reallocate one (1) second of green time from the southbound phase to the eastbound/westbound phase during the weekday AM peak hour.*

- In 2005, weekday PM peak hour delays for eastbound through movements are projected to increase from 82.5 seconds/vehicle (LOS F) under no-build conditions to 88.4 seconds/vehicle (LOS F) under build conditions. *Reallocate one (1) second of green time from the southbound phase to the eastbound/westbound phase during the weekday PM peak hour.*

- In 2006, weekday AM peak hour delays for eastbound right-turns are projected to increase from 107.8 seconds/vehicle (LOS F) under no-build conditions to 116.1 seconds/vehicle (LOS F) under build conditions. In addition, weekday AM peak hour delays for westbound left-turns are projected to increase from 80.7 seconds/vehicle (LOS F) under no-build conditions to 90.5 seconds/vehicle (LOS

F) under build conditions. *Reallocate one (1) second of green time from the southbound phase to the eastbound/westbound phase during the weekday AM peak hour.*

- In 2006, weekday PM peak hour delays for eastbound through movements are projected to increase from 85.6 seconds/vehicle (LOS F) under no-build conditions to 94.9 seconds/vehicle (LOS F) under build conditions. *Reallocate one (1) second of green time from the southbound phase to the eastbound/westbound phase during the weekday PM peak hour.*

5th Avenue/42nd Street Study Area

5th Avenue/42nd Street

- In 2004, weekday AM peak hour delays on the westbound approach are projected to increase from 84.5 seconds/vehicle (LOS F) under no-build conditions to 91.2 seconds/vehicle (LOS F) under build conditions. *Reallocate one (1) second of green time from the southbound phase to the eastbound/westbound phase during the weekday AM peak hour.*

- In 2005, weekday AM peak hour delays on the westbound approach are projected to increase from 86.2 seconds/vehicle (LOS F) under no-build conditions to 99.2 seconds/vehicle (LOS F) under build conditions. In addition, weekday PM peak hour delays on the westbound approach are projected to increase from 63.9 seconds/vehicle (LOS E) under no-build conditions to 71.9 seconds/vehicle (LOS E) under build conditions. *Reallocate one (1) second of green time from the southbound phase to the eastbound/westbound phase during the weekday AM and PM peak hours.*

- In 2006, weekday PM peak hour delays on the westbound approach are projected to increase from 66.9 seconds/vehicle (LOS E) under no-build conditions to 79.6 seconds/vehicle (LOS E) under build conditions. *Reallocate one (1) second of green time from the southbound phase to the eastbound/westbound phase during the weekday PM peak hour.*

6th Avenue/West 42nd Street

- In 2004, weekday AM peak hour delays on the westbound approach are projected to increase from 74.7 seconds/vehicle (LOS E) under no-build conditions to 79.8 seconds/vehicle (LOS E) under build conditions. *Reallocate one (1) second of green time from the northbound phase to the eastbound/westbound phase during the weekday AM peak hour.*

- In 2005, weekday AM peak hour delays on the westbound approach are projected to increase from 75.9 seconds/vehicle (LOS E) under no-build conditions to 86.2

seconds/vehicle (LOS F) under build conditions. *Reallocate one (1) second of green time from the northbound phase to the eastbound/westbound phase during the weekday AM peak hour.*

- In 2006, weekday AM peak hour delays on the westbound approach are projected to increase from 81.0 seconds/vehicle (LOS F) under no-build conditions to 96.2 seconds/vehicle (LOS F) under build conditions. *Reallocate one (1) second of green time from the northbound phase to the eastbound/westbound phase during the weekday AM peak hour.*

<u>Madison Avenue/East 42nd Street</u>

- In 2004, weekday AM peak hour delays on the eastbound approach are projected to increase from 118.4 seconds/vehicle (LOS F) under no-build conditions to 128.4 seconds/vehicle (LOS F) under build conditions. In addition, weekday AM peak hour delays on the westbound approach are projected to increase from 72.4 seconds/vehicle (LOS E) under no-build conditions to 77.4 seconds/vehicle (LOS E) under build conditions. *Reallocate one (1) second of green time from the northbound phase to the eastbound/westbound phase during the weekday AM peak hour.*

- In 2005, weekday AM peak hour delays on the eastbound approach are projected to increase from 121.9 seconds/vehicle (LOS F) under no-build conditions to 138.7 seconds/vehicle (LOS F) under build conditions. In addition, weekday AM peak hour delays on the westbound approach are projected to increase from 74.2 seconds/vehicle (LOS E) under no-build conditions to 83.4 seconds/vehicle (LOS F) under build conditions. *Reallocate one (1) second of green time from the northbound phase to the eastbound/westbound phase during the weekday AM peak hour.*

<u>Vanderbilt Avenue/East 42nd Street</u>

- In 2004, weekday AM peak hour delays on the westbound approach are projected to increase from 61.6 seconds/vehicle (LOS E) under no-build conditions to 65.7 seconds/vehicle (LOS E) under build conditions. *Reallocate one (1) second of green time from the leading pedestrian phase to the eastbound/westbound phase during the weekday AM peak hour.*

- In 2005, weekday AM peak hour delays on the westbound approach are projected to increase from 62.7 seconds/vehicle (LOS E) under no-build conditions to 71.0 seconds/vehicle (LOS E) under build conditions. *Reallocate one (1) second of green time from the leading pedestrian phase to the eastbound/westbound phase during the weekday AM peak hour.*

- In 2006, weekday AM peak hour delays on the westbound approach are projected to increase from 66.6 seconds/vehicle (LOS E) under no-build conditions to 79.9

seconds/vehicle (LOS E) under build conditions. *Reallocate one (1) second of green time from the leading pedestrian phase to the eastbound/westbound phase during the weekday AM peak hour.*

Broadway/6th Avenue/West 34th Street Study Area

6th Avenue/West 31st Street

- In 2005, weekday AM peak hour delays on the northbound approach are projected to increase from 35.5 seconds/vehicle (LOS D) under no-build conditions to 42.3 seconds/vehicle (LOS D) under build conditions. *Reallocate one (1) second of green time from the westbound phase to the northbound phase during the weekday AM peak hour.*

- In 2006, weekday AM peak hour delays on the northbound approach are projected to increase from 37.2 seconds/vehicle (LOS D) under no-build conditions to 48.8 seconds/vehicle (LOS D) under build conditions. *Reallocate one (1) second of green time from the westbound phase to the northbound phase during the weekday AM peak hour.*

6th Avenue/West 32nd Street

- In 2006, weekday AM peak hour delays on the eastbound approach are projected to increase from 40.0 seconds/vehicle (LOS D) under no-build conditions to 46.4 seconds/vehicle (LOS D) under build conditions. *Reallocate one (1) second of green time from the northbound phase to the eastbound phase during the weekday AM peak hour.*

6th Avenue/West 33rd Street

- In 2005, weekday AM peak hour delays for northbound through movements are projected to increase from 39.3 seconds/vehicle (LOS D) under no-build conditions to 45.2 seconds/vehicle (LOS D) under build conditions. *Reallocate one (1) second of green time from the leading pedestrian phase to the northbound phase during the weekday AM peak hour.*

6th Avenue/Broadway/West 34th Street

- In 2004, weekday PM peak hour delays on the southbound approach are projected to increase from 184.9 seconds/vehicle (LOS F) under no-build conditions to 188.3 seconds/vehicle (LOS F) under build conditions. *Reallocate one (1) second of green time from the northbound (6th Avenue) phase to the southbound (Broadway) phase during the weekday PM peak hour.*

- In 2005, weekday AM peak hour delays on the southbound approach are projected to increase from 64.6 seconds/vehicle (LOS E) under no-build

conditions to 69.5 seconds/vehicle (LOS E) under build conditions. In addition, weekday PM peak hour delays on the southbound approach are projected to increase from 188.3 seconds/vehicle (LOS F) under no-build conditions to 195.8 seconds/vehicle (LOS F) under build conditions. *Reallocate one (1) second of green time from the northbound (6th Avenue) phase to the southbound (Broadway) phase during the weekday AM and PM peak hours.*

- In 2006, weekday AM peak hour delays on the southbound approach are projected to increase from 66.3 seconds/vehicle (LOS E) under no-build conditions to 74.4 seconds/vehicle (LOS E) under build conditions. In addition, weekday PM peak hour delays on the southbound approach are projected to increase from 191.2 seconds/vehicle (LOS F) under no-build conditions to 201.5 seconds/vehicle (LOS F) under build conditions. *Reallocate one (1) second of green time from the northbound (6th Avenue) phase to the southbound (Broadway) phase during the weekday AM and PM peak hours.*

<u>6th Avenue/West 36th Street</u>

- In 2005, weekday AM peak hour delays for eastbound left-turns are projected to increase from <u>78.2</u> seconds/vehicle (LOS E) under no-build conditions to <u>82.4</u> seconds/vehicle (LOS F) under build conditions. In addition, weekday PM peak hour delays for eastbound left-turns are projected to increase from 78.4 seconds/vehicle (LOS E) under no-build conditions to 82.7 seconds/vehicle (LOS F) under build conditions. *Reallocate one (1) second of green time from the northbound phase to the eastbound left-turn/through phase during the weekday AM and PM peak hours.*

- In 2006, weekday AM peak hour delays for eastbound left-turns are projected to increase from 79.1 seconds/vehicle (LOS E) under no-build conditions to <u>88.1</u> seconds/vehicle (LOS F) under build conditions. In addition, weekday PM peak hour delays for eastbound left-turns are projected to increase from 80.5 seconds/vehicle (LOS F) under no-build conditions to 87.3 seconds/vehicle (LOS F) under build conditions. *Reallocate one (1) second of green time from the northbound phase to the eastbound left-turn/through phase during the weekday AM and PM peak hours.*

8th Avenue/West 42nd Street Study Area

<u>8th Avenue/West 41st Street</u>

- In 2006, weekday PM peak hour delays on the westbound approach are projected to increase from 48.4 seconds/vehicle (LOS D) under no-build conditions to 57.0 seconds/vehicle (LOS E) under build conditions. *Reallocate one (1) second of green time from the northbound phase to the westbound phase during the weekday PM peak hour.*

8th Avenue/West 42nd Street

- In 2005, weekday PM peak hour delays on the westbound approach are projected to increase from 67.8 seconds/vehicle (LOS E) under No-build conditions to 71.8 seconds/vehicle (LOS E) under Build conditions . *Re-allocate one (1) second of green time from the leading eastbound phase to the eastbound/westbound permitted phase during the weekday PM peak hour.*

- In 2006, weekday PM peak hour delays on the westbound approach are projected to increase from 110.0 seconds/vehicle (LOS F) under no-build conditions to 118.6 seconds/vehicle (LOS F) under build conditions. *Reallocate one (1) second of green time from the leading eastbound phase to the eastbound/westbound permitted phase during the weekday PM peak hour.*

8th Avenue/West 43rd Street

- In 2005, weekday AM peak hour delays on the westbound approach are projected to increase from 70.4 seconds/vehicle (LOS E) under no-build conditions to 77.6 seconds/vehicle (LOS E) under build conditions. *Reallocate one (1) second of green time from the northbound phase to the westbound phase during the weekday AM peak hour.*

- In 2006, weekday AM peak hour delays on the westbound approach are projected to increase from 73.0 seconds/vehicle (LOS E) under no-build conditions to 83.1 seconds/vehicle (LOS F) under build conditions. In addition, weekday PM peak hour delays on the westbound approach are projected to increase from 51.7 seconds/vehicle (LOS D) under no-build conditions to 58.1 seconds/vehicle (LOS E) under build conditions. *Reallocate one (1) second of green time from the northbound phase to the westbound phase during the weekday AM and PM peak hours.*

8th Avenue/West 45th Street

- In 2005, weekday PM peak hour delays on the westbound approach are projected to increase from 67.8 seconds/vehicle (LOS E) under no-build conditions to 75.7 seconds/vehicle (LOS E) under build conditions. *Reallocate one (1) second of green time from the northbound phase to the westbound phase during the weekday PM peak hour.*

- In 2006, weekday PM peak hour delays on the westbound approach are projected to increase from 69.3 seconds/vehicle (LOS E) under no-build conditions to 82.1 seconds/vehicle (LOS F) under build conditions. *Reallocate one (1) second of green time from the northbound phase to the westbound phase during the weekday PM peak hour.*

9th Avenue/West 42nd Street

- In 2006, weekday AM peak hour delays for eastbound through movements are projected to increase from 139.5 seconds/vehicle (LOS F) under no-build conditions to 143.9 seconds/vehicle (LOS F) under build conditions. *Reallocate one (1) second of green time from the westbound leading phase to the eastbound/westbound permitted phase during the weekday AM peak hour.*

7th Avenue/West 42nd Street

- In 2005, weekday AM peak hour delays on the eastbound approach are projected to increase from 155.4 seconds/vehicle (LOS F) under no-build conditions to 161.3 seconds/vehicle (LOS F) under build conditions. *Reallocate one (1) second of green time from the southbound phase to the eastbound/westbound phase during the weekday AM peak hour.*

- In 2006, weekday AM peak hour delays on the eastbound approach are projected to increase from 164.5 seconds/vehicle (LOS F) under no-build conditions to 175.2 seconds/vehicle (LOS F) under build conditions. *Reallocate one (1) second of green time from the southbound phase to the eastbound/westbound phase during the weekday AM peak hour.*

Appendix C

Written Comments Made on the DEIS

Patrick M. Centolanzi, PE, P. O. Box 1803, Grand Central Station,
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New York City Taxi and Limousine Commission Draft Environmental Impact Statement
COMMENTS ON PROPOSED ISSUANCE OF ADDITIONAL TAXICAB MEDALLIONS

- New York City is the greatest city in the world. New York City should be the leader in transportation that is energy-efficient, low-emission, and accessible to the disabled. This transportation leadership should include all yellow taxis and black cars in the city.

- Whatever decisions and policies made because of this action should include both yellow taxis and black cars in all five boroughs. There needs to be energy-efficient, accessible taxis and black cars in all five boroughs.

- All 900 new medallions should be limited to vehicles that are hybrid or accessible or both.

- The first 300 medallions issued should be limited to ramp-equipped minivans, since these vehicles are available now.

- The second 300 medallions should be limited to hybrid SUVs, such as the Lexus RX400H or the Toyota Highlander Hybrid, since these vehicles will be available when the second 300 medallions are released.

- The last 300 medallions can be used as needed for hybrid or accessible vehicles.

- The overarching goal of this action should be that by 2006, a full 10% of all yellow taxis and black cars in the City of New York should be either hybrid or accessible or both.

- Compressed Natural Gas vehicles should not be required or otherwise considered due to the known problems with CNG and limited availability of vehicles. CNG vehicles tend to be inefficient and unreliable, and suffer from very expensive fueling infrastructure.

- SUVs should no longer be purchased as yellow taxis or black cars unless they are hybrid or accessible. A minivan can easily carry the passenger and cargo load of a standard SUV and minivans are accessible (when ramp-equipped).

- When the JFK AIRPORT AirTrain Taxi Stand opens at the JFK AIRPORT/Jamaica Transit Center, the TLC should advertise to and encourage potential passengers to take the AirTrain to Jamaica, and then get a cab there. The will reduce emissions at JFK AIRPORT and reduce energy use by minimizing the amount of taxis at JFK AIRPORT that are stuck in congestion, cruising for fares, or idling at cabstands.

- The flat fare from JFK AIRPORT to Midtown Manhattan is expected to rise to $49.00. The TLC should establish a flat fare from the JFK AIRPORT AirTrain Jamaica Taxi Stand that is AT LEAST $20.00 less than the flat fare from the JFK Airport Terminal Loop. This will encourage taxi passengers to ride the AirTrain system (thus reducing congestion, emissions and energy use in the Airport). Also, eliminate the LATE NIGHT surcharge, and replace it with a PEAK HOUR surcharge.

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Statement by Saba Waheed, Principal Researcher of the Community Development Project at the Urban Justice Center, to the Taxi and Limousine Commission of the City of New York

Regarding Draft Environmental Impact Statement and Issuance of 900 New Taxi Medallions
January 7, 2004

My name is Saba Waheed, I am the Principal Researcher at the Urban Justice Center's Community Development Project. In September of 2003, we issued a report called ***Unfare: Taxi Drivers and the Cost of Moving the City***, a copy of which has been supplied with this testimony. As the city moves towards making a final decision regarding the sale of 900 new medallions, it is important to consider the impact this will have on drivers. Based on the report, we found that drivers were in a state of extreme economic hardship. The report was based on a survey of almost 600 drivers and is the largest pool of drivers ever surveyed. The survey offered a rare glimpse into the working conditions of drivers. The report results are striking. Drivers are paying city-regulated 2003 operating and living costs while taking in taxi fares set in 1996. As the industry stands today, increasing the number of medallions will do little to alleviate the financial pressure of drivers; without a fare increase, and decrease in operating costs, the industry will continue to provide substandard working conditions for all drivers.

The structure of the industry places drivers at a disadvantage, as they typically have high upfront job-related costs without the guarantee of a decent take home pay. Based on the report, only 31% of drivers were owner drivers, with the remaining working under the leasing system for the medallion needed to drive a taxi in the City. Drivers reported daily operating costs amounting to an average of $137, half of which consisted of paying just for the cost of the medallion. Over a period of month, they will have paid out over $3,000 in operating costs. And yet, most shocking in the results were that, during the time the surveys were taken, average take home earnings were as low as $22.

Operating costs are fixed, and not dependent on ridership or the economy. Thus, any fluctuation in ridership affects the drivers and their take home pay. There has not been a fare increase since 1996 and taking into consideration inflation, the current fare is at a 35 year all time low. In addition, there has been a 15% rise in the cost of living since the last fare increase and astounding increases in gasoline prices. Drivers are struggling to meet 2003 costs, while earning 1996 wages.

The survey results revealed further economic hardship among industry workers. Drivers were unable to meet daily living expenses. Sixty-two percent were facing some form of arrears in their rent, phone and other expenses. Furthermore, with the inability to meet living costs, drivers also reported high levels of debt. Nearly half of the drivers reported owing over $10,000 on their credit card. Thirty nine percent reported taking out personal loans on average of $14,000. The level of debt and arrears illustrate the strain on drivers' personal and financial lives. As the industry stands today, drivers are not able to make a sustainable income to support themselves and their families.

In addition, drivers must confront affront to their safety. One-third had been verbally harassed, one quarter had their cabs damaged and 19% had their cabs threatened.

Furthermore, the September 11th disaster had devastating and long-term effects on drivers, as 50% reported making less in the months following the attacks as compared to their income one year earlier. They also did not receive the necessary disaster assistance, regardless of the dramatic drop in ridership following the attacks which affected the industry as a whole. Only 7% of drivers applied for disaster assistance, and of those that did, only four of all the drivers surveyed received any type of aid.

The cost, not the profits, of moving the city, is being carried by the drivers. The city must account for these working conditions. Yellow taxicabs are a cultural icon, the symbol of the city - and what drivers need, is an equitable system that rewards their labor. Before we even consider increasing the number of taxicabs on the streets of NYC, we must first address the working conditions of drivers. Foremost of which, a fare increase and a reduction in the lease caps need to be put into place to create decent working conditions for drivers.

Testimony of Charles Komanoff

On behalf of the New York Taxi Workers Alliance

New York City Taxi & Limousine Commission Public Hearing
re: **Proposed Issuance of Additional Taxicab Medallions**
January 12, 2004

Charles Komanoff
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636 Broadway
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Phone: 212 260 5237
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Charles Komanoff / Komanoff Energy Associates / 636 Broadway / NYC 10012 / 212 260 5237 / kea@igc.org

Statement of Charles Komanoff
on behalf of the **New York Taxi Workers Alliance**
before the **New York City Taxi & Limousine Commission**
re: **Proposed Issuance of Additional Taxicab Medallions**
January 12, 2004

My name is Charles Komanoff. I am a public-policy economist with over 30 years of experience analyzing policy issues in energy, transportation and economics. Over the course of my career I have served New York City as a staff economist with the Environmental Protection Administration (now DEP), and have testified as an expert witness on behalf of both the City and State of New York. My publications include four books and hundreds of consultant reports, articles in scientific journals and essays in magazines and newspapers. I live and work in lower Manhattan.

I am appearing today on behalf of the New York Taxi Workers Alliance. As a citizen, I wholeheartedly support the Alliance's ongoing efforts to win fair wages and humane working conditions for taxi drivers. In my professional capacity, I wish to advise the Taxi & Limousine Commission and all New Yorkers that **adding 900 taxicabs to the city's medallion fleet is not in the public interest**. This is because the "time costs" of the increased gridlock from the additional taxi traffic will almost certainly outweigh the value of the additional cab rides. Nor is issuing more medallions a prerequisite for raising taxi fares, which can and should be done regardless, without any linkage to the number of medallions.

The TLC's Draft Environmental Impact Study acknowledges that issuance of the medallions will result in "significant adverse traffic impacts." (p. 38) But the study neglects to quantify these impacts. I have done so. Judging from my analysis, the outlook for the millions of people working, living and traveling in Manhattan south of 96th Street, is downright scary.

Here are my key findings:

1. **Adding 900 new medallion cabs to the city's streets will have the same traffic impact as bringing 27,000 additional cars into the heart of the city each day.**
2. **The presence of 900 additional taxicabs will tack an additional 4%, on average, onto the time required for motor vehicles — not just yellow cabs but also other for-hire vehicles, private autos, vans, buses and trucks of all sizes — to make their journeys in Manhattan south of 96th Street.**
3. **Translating this 4% prolongation of vehicular trips into lost minutes and hours, issuing 900 new medallions will rob Manhattan motorists (and passengers) of over 18 million hours a year in lost time.**

Lest this seem surprising, please bear in mind that motor vehicles make over a billion trips a year in Manhattan south of 96th Street. Indeed, **these trips outnumber by 80-to-1 the number of new trips that will be made by the 900 new medallion cabs**. Each new "hail" enabled by issuing the new medallions will thus come at the expense of ensnaring 80 other trips by cars, buses, vans, trucks and cabs in additional gridlock.

A 4% compounding of gridlock will, collectively, squander an extra 25,000 "vehicle-hours" on an average day, or a total of 9.3 million vehicle-hours per year. Since the average vehicle in Manhattan carries two people (reflecting not just carpools but also buses in the vehicle "mix"), **the extra gridlock from issuing 900 new medallions can be expected to chew up some 18-19 million person-hours of time each year**. Based on standard estimates of the value of time for different types of vehicles and their occupants, **the time costs to motorists of the additional gridlock that will be created by 900 new medallion taxicabs can be expected to total $480 million a year**.

And this figure doesn't include related costs such as the additional time that Manhattan pedestrians will need to cross streets, or the time costs to motorists on bridges and highways leading to airports and other non-Manhattan destinations due to the additional taxicabs, or the health costs associated with the additional air pollution, noise pollution and endangerment from the greater traffic volume.

What about the benefits that the 900 new medallions will bring? I have estimated these as well, and they appear to be far less than the $480 million in time costs.

The major benefit of the new medallions will come, of course, from the additional cab rides that the taxi-using public will now be able to take. This benefit is best measured by taxi riders' willingness to pay, which in turn can be gauged from what they actually pay for rides. The average medallion taxi fare (including tip) is just over $8. Clearly, the average value of these trips to taxi riders must be at least $8 — otherwise, the riders wouldn't use cabs. (This point applies generally for consumer purchases; for moviegoers, say, the average value of going to the movies must be at least as great as the ticket price; else, people would stop going to the movies.) Some of those $8 cab trips are worth far more than $8, while others are probably worth only $8, or even less ("Darn, the traffic isn't moving, I should have taken the train or walked instead.") Here, I have valued cab rides as being worth twice the fare (including tip), making the average trip worth a little over $16 to taxi users.

The result is that each new cab can be expected to create around $730 of daily value for the cab-riding public (calculated as 46 daily trips per cab x $8.07 average fare x 2), or $266,000 a year per medallion. Multiplied by 900 new medallions, **the TLC's proposal can be expected to create $240 million a year of value for riders** (calculated as 900 x $266,000). This figure, while substantial, is **only half of the $480 million time cost that motorists in Manhattan south of 96th St. will bear due to the increased gridlock**.

The other benefit from selling 900 medallions is the $225 million in revenue the city will reap, according to the study for the TLC. However, this impressive-sounding figure is a one-shot cash infusion, whereas the $480 million time cost and the $240 million taxi riders benefit are both annual and thus recurring. The appropriate way to express the medallion revenue is as an annuity; at a 6% interest rate, **the city will realize $13-$14 million in annual revenue from selling the 900 medallions** (or, equivalently, the city could retire $225 million in debt, resulting in annual interest savings of $13-$14 million).

The bottom line for the 900-medallions sale, then, looks something like this:

Annual Costs and Benefits of Issuing 900 New Taxicab Medallions	
Time costs to Manhattan motorists	$480 million
Time costs to Manhattan pedestrians and bicyclists	not included
Time costs to non-Manhattan motorists	not included
Health costs (additional noise, air emissions, traffic conflict, crashes, etc.)	not included
TOTAL COSTS	**at least $480 million**
Value of additional cab rides to taxi-riding public	$240 million
Revenue stream from sale of medallions, annualized @ 6%	$14 million
TOTAL BENEFITS	**$254 million**
NET COSTS	**at least $226 million**
RATIO, COSTS TO BENEFITS	**at least 1.9**

The net annual costs to New York City residents and workers from issuing 900 new medallions are, thus, on the order of $225 million, or <u>a quarter-of-a-million dollars per medallion per year</u>. The cost is "linear," meaning that the per-medallion cost cannot be diminished by reducing the scope of the proposed sale. Nor can it be ameliorated by tinkering with signal timings or applying other standard traffic-management tools.

The only way to truly offset the traffic impact of the additional taxicabs is to remove an equivalent number of private automobiles from the same area (Manhattan south of 96th Street). Since the average medallion taxi logs roughly 30 times as many miles there per day or year as does the average private auto, **adding 900 medallions without worsening traffic would require eliminating approximately 27,000 private cars from entering and/or operating within this area.** Only when the city administration has presented a serious plan for doing so should it present a proposal for adding 900 medallion taxicabs.

To conclude: <u>Taxi drivers need and deserve higher wages</u>. <u>Taxi fares can and should be raised regardless of the number of medallions</u>. <u>The time costs to motorists from issuing new medallions will far outweigh the value of the additional cab rides</u>.

(Note: The writer wishes to acknowledge the invaluable and generous assistance of Brian Ketcham of Community Consulting Services, Inc. in developing data for this analysis.)

Statement of Charles Komanoff on behalf of the New York Taxi Workers Alliance

Key Findings

Each new medallion cab will have the same traffic impact in Manhattan south of 96th Street as adding 30 cars to that area each day.

Adding 900 new medallion cabs to the city's streets will have the same traffic impact as bringing 27,000 additional cars into the heart of the city each day.

The presence of 900 additional taxicabs will tack an additional 4%, on average, onto the time required for motor vehicles — not just yellow cabs but also other for-hire vehicles, private autos, vans, buses and trucks of all sizes — to make their journeys in Manhattan south of 96th Street.

Impact of 900 new medallions on vehicle speeds, Manhattan south of 96th St.

Road Type	Avg speed before	Avg speed after	Slowdown, %
Expressways	25.0 mph	24.9 mph	**0.4%**
Arterials (avenues)	10.0 mph	9.6 mph	**4.1%**
Local Roads (streets)	6.0 mph	5.6 mph	**6.3%**

Issuing 900 new medallions will rob motorists (and passengers) of an estimated 18.6 million hours a year in lost time traveling in Manhattan south of 96th Street, with a collective cost of $480 million hours annually.

The additional taxi rides enabled by 900 new medallion cabs can be expected to have an aggregate value to riders of $240 million a year, or half of the $480 million time cost that motorists in Manhattan south of 96th Street will bear due to the increased traffic gridlock.

The city will realize only $13-$14 million in annual revenue from selling the 900 medallions.

On a net basis, selling 900 medallions will create at least $225 million more in annual costs than in benefits; this figure doesn't include the additional time that Manhattan pedestrians will need to cross streets, or the added time costs to motorists on bridges and highways leading to airports and other non-Manhattan destinations, or the health costs from the additional pollution and endangerment due to the greater traffic volume.

Adding 900 medallions without worsening traffic in Manhattan south of 96th Street would require eliminating approximately 27,000 private cars from entering and/or operating within that area. Only when the city administration has presented a serious plan for doing so should it present a proposal for adding 900 medallion taxicabs.

Taxi drivers need and deserve higher wages, and taxi fares can and should be raised regardless of the number of medallions.

C. Komanoff / Komanoff Energy Associates / kea@igc.org / 212 260 5237 / January 12, 2004

This spreadsheet estimates both (1) the gridlock (travel time) costs and (2) passenger-value benefits of increasing the NYC medallion taxi fleet by 900.

Item 1, below, derives the annual costs associated with the longer travel times that car drivers, their passengers, van users (e.g., repair guys), truckers, bus drivers and their passengers, will bear in Manhattan south of 96th Street, due to the slowdown in traffic caused by the presence of 900 additional vehicles averaging 150 miles of daily travel per vehicle within that area, year-round.

Item 2 estimates the annual value to the cab-riding public of the additional trips that 900 new cabs will make possible. It is estimated as a multiple of the total fares (including tips) for these trips, to reflect the fact that taxi riders tend to value their trips at more than the fare (otherwise they would stop taking cabs).

With the methodology and assumptions used here, quantity #1 (the time costs to motorists south of 96th St.) is shown to far exceed quantity #2 (the ride benefits) indicating that, on transportation criteria alone (I.e., excluding air and noise pollution, traffic injury, etc.), the costs to New Yorkers of adding new medallion cabs will significantly exceed the benefits.

Part (1) -- Gridlock (travel time) Costs

Total Manhattan VMT (vehicle miles traveled) per day	11,071,000	NYS DOT, "Project Environmental Guidelines," Jan. 2001, Chapter 1,1, Air Quality, Table 17.
Total Manhattan VMT (vehicle miles traveled) per year	4,040,915,000	(multiply prior figure by 365)

Manhattan Road Miles and VMT	**Road Miles**	**VMT/mile**	**VMT**
Inwood to 96th Street ("northern Manhattan")	224.78	5,086,667	1,143,380,933
96th Street to Battery ("southern Manhattan")	379.88	7,630,000	2,898,484,400
All Manhattan	604.66		4,041,865,333
Assumed Ratio of VMT/mile, southern to northern Mai	1.5		

"VMT" denotes Vehicle Miles Traveled

Road Miles are by Erik de Kok, Konheim & Ketcham, Jan. 8, 2004, using G.I.S. VMT/mile ratio between southern and northern Manhattan is Komanoff estimate.

VMT/mile figures were "backed into" by truing up VMT for "all Manhattan" with total Manhattan VMT calculated from the NYS DOT source shown above.

Additional VMT in Manhattan south of 96th Street, due to the New Medallions

Number of new medallion taxicabs:	900		0.4%
Annual VMT per taxi:	63,400	Schaller, 2003 Taxicab Fact Book, p. 42	4.1%
Number of medallions, currently	12,187		6.3%
Share of VMT in Manh. below 96th St	88%	Komanoff estimate	
Incrs in Manhattan VMT below 96th S	50,212,800	Calculated by multiplying number of new medallions x annual VMT for each x share of VMT S of 96th St.	

VMT and Travel Time for Manhattan South of 96th Street, "before" and "after" issuing the New Medallions

Road Type	Road Miles	Percent of Area VMT	Current Annual VMT ("Before")	Current Avg MPH ("Before")	Current Annual Travel Hours ("Before")	Allocation of addit'l taxi VMT	Additional Taxi VMT	VMT Incrs	Speed-Volume Factor	New MPH ("After")	New Annual Travel Hrs ("After")	Increase in Annual Hrs	Hours Incrs
Expressways	44	44.69%	1,295,332,678	25.0	51,813,307	10%	5,021,280	0.4%	1.0	24.9	52,014,940	201,633	0.4%
Arterials	200	44.25%	1,282,579,347	10.0	128,257,935	70%	35,148,960	2.7%	1.5	9.6	133,756,302	5,498,367	4.3%
Local Roads	361	11.06%	320,572,375	6.0	53,428,729	20%	10,042,560	3.1%	2.0	5.6	57,000,003	3,571,274	6.7%
TOTAL	605		2,898,484,400	12.4	233,499,971		50,212,800	1.7%			242,771,245	9,271,275	4.0%
							Total Incrs in Annual Hrs (a/k/a Increased "Gridlock"):					**9,300,000**	**4.0%**
										Incrs in daily hrs:		25,500	

(Notes for this table are on top of next page.)

Notes to table at bottom of previous page.

Road Miles are from Konheim & Ketcham. Percent of Area VMT was estimated using ratio of vehicle trip ends by county from "Highway Travel Forecasts: 1980-2015," NYMTC staff report No. PT 1239801, March 1989. Current MPH is by Komanoff, increased from NYMTC's 23.8, 7.5 and 4.7 mph, respectively (Ibid.), for conservatism and to allow average travel speeds to true up to the 13.47 mph implied by B. Schaller's figures that taxi trips average 2.47 miles and 11 minutes (NYC Taxicab Fact Book, Sept. 2003, p. 16), while allowing for the likelihood that taxis travel faster than the rest of the vehicle "mix." Allocation of new taxi VMT is Komanoff estimates. Speed-volume factor denotes extent to which each % increase in traffic volume engenders a corresponding decline in the average travel speed. Factors shown here reflect varying rates of traffic congestion among the three road types. See discussion of speed-volume factors in Komanoff-Ketcham report, "The Hours" (available at www.bridgetolls.org/research/). New travel-time hours are calculated with new speeds on old VMT, for consistency.

Annual Cost of the Additional Gridlock		
Average value of a vehicle-hr	$ 51.65	See derivation in Part (4) on next page.
Travel-time cost of new medallions	**$480,000,000**	Calculated by multiplying the increase in annual hours by the value of a vehicle-hour. Figure is rounded.
Part (2) -- Value of the additional taxi rides		
Share of taxi VMT spent cruising	35%	Schaller, 2003 Taxicab Fact Book, p. 19.
Average cab-ride length, miles	2.47	Schaller, 2003 Taxicab Fact Book, p. 16.
Paying rides per cab per yr	16,684	Calc'd by dividing ann. non-cruise VMT by avg ride length. Note, Schaller, 2003 TFB, p. 3, says 171 million rides, implying 14,030/cab.
Paying rides per cab per yr	45.71	Calc'd by dividing previous item by 365.
Fare per ride	$8.07	Schaller, 2003 Taxicab Fact Book, p. 16. Includes tips and night surcharge.
Revenue per cab per year	$ 134,642	Calc'd as product of fare per ride x paying rides per cab per year.
Annual rev. from fares for new cabs	$121,177,421	Calc'd as product of prior item x 900 new medallions.
"Consumer Surplus" factor	2.0	Komanoff estimate intended to capture the extent to which the true value of cab rides exceeds the price (incl. tip) paid by riders.
Passenger value of add'l rides	**$240,000,000**	Calc'd as product of two prior items. Figure is rounded.
Part (3) -- Supplementary Calculations		
Total VMT per year S of 96th St:	2,898,484,400	Derived near the top of Part (1).
Taxi VMT per year S of 96th St:	679,937,104	Calculated as product of annual per-taxi VMT x current number of medallion cabs x % of taxi VMT S of 96th St.
Non-taxi VMT per yr S of 96th St:	2,218,547,296	Calculated as difference between two prior items.
Taxi trips per year S of 96th St:	178,930,817	Calculated as product of per-taxi paying rides x current number of medallion cabs x % of taxi VMT S of 96th St.
Avg miles, non-taxi trips S 96th:	2.47	Komanoff assumption that non-taxi trips are as long as taxi trips.
Non-taxi trips per yr S of 96th St.:	898,197,286	Calculated as quotient of non-taxi VMT divided by avg miles of non-taxi trips.
Total veh trips per yr S of 96th St.:	1,077,128,103	Calculated as sum of taxi + non-taxi trips south of 96th Street.
New medallion trips per yr S of 96tl	13,213,895	Calculated as product of # of new medallions x per-taxi paying rides x % of taxi VMT south of 96th St.
Ratio of two prior entries:	82	Calculated as ratio of two prior items.
Total daily veh trips S of 96th St.:	2,951,036	Calculated as total annual vehicle trips south of 96th Street, divided by 365.

"VMT" denotes Vehicle Miles Traveled

Part (4) -- Average Time-Value of a Vehicle-Hour

Vehicle Type	# People	Low Value	High Value	% of Veh's
On-peak SOV (single-occupant veh.)	1	$ 20	$ 40	20%
On-peak Car 2+ (carpool)	2.4	$ 48	$ 96	5%
Off-peak SOV	1	$ 10	$ 20	18%
Off-peak Car 2+	3	$ 20	$ 40	18%
Taxi	1.4	$ 35	$ 70	20%
Bus	21	$ 240	$ 440	2%
Commuter Van	6	$ 60	$ 120	1%
Commercial Van	1.5	$ 50	$ 100	9%
Big Rig (18-wheeler)	1	$ 150	$ 300	1%
Large Truck	1.25	$ 75	$ 150	6%
Weighted Average	2.02	$ 34.70	$ 68.60	100%
Mean of Low and High Values:			**$ 51.65**	

Vehicle shares are adapted from Komanoff spreadsheet used for East River corssings in "The Hours," which in turn is based on NYC DOT, "2000 Manhattan River Crossings," Dec. 2001, p. 34. Shares were reduced considerably here for big rigs and commuter vans to reflect intra-Manhattan travel.

On-peak SOV (single-occupant vehicle) or car with 2 or more people: assume $20 per person in car for low value, twice that for high.

Off-peak SOV or car with 2 or more people: value driver at half rate of an on-peak motorists, and value passengers at half driver rate.

Taxi: assume $25 per passenger for low value, twice that for high, and exclude driver.

Bus: assume $40 for driver for both low and high value; assume 20 passengers and value each at rate of an off-peak single-occupant vehicle.

Commuter van: assume 6 people (including driver) and value each at rate of an off-peak SOV.

Commercial van, big rig and other trucks: as shown.

"VMT" denotes Vehicle Miles Traveled

Part (5) -- Offsetting the Additional Taxicabs by Reducing the Presence of Private Automobiles

Annual per-medallion VMT south of 96th St:	55,800	Calculated as product of annual taxi VMT x % of miles in Manhattan S of 96th St.
Estimated VMT per private auto in same area, per day	5	Komanoff estimate; intended to encompass 3-4 mi for commute trips, more for other trips
Annual VMT in area by private auto operating daily:	1,825	Prior number x 365 days/yr
Ratio, annual VMT in area by taxi to private auto:	31	Ratio of per-taxi VMT (south of 96th St.) to private-auto VMT (ditto)

Part (6) -- Items Excluded from this Analysis

Considerations that would favor issuing new medallions	Considerations that work against issuing new medallions
* Additional taxis might dissuade some NY'ers from owning cars.	* Additional street-crossing times for pedestrians
* Additional traffic might discourage some motor vehicle trips.	* Lengthened travel times for bicyclists
	* Additional air and noise pollution
	* Additional injury from increased crash frequency
	* Possibility that # of rides per taxi was overestimated here. (See note under "paying rides per cab.")

DISABLED IN ACTION OF METROPOLITAN NEW YORK
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January 12, 2004
Testimony Before the TLC on the EIS for 900 Medallions

Hello. My name is Jean Ryan and I am a board member of Disabled In Action, and a member of the Taxis for *ALL* Campaign.

My testimony will be short and sweet. It's very cold out there and it's messy with snow. When tonight's meeting is over, most of you will be going home by subway or taxi. The subway is usually the fastest way around New York City, but since the subways are inaccessible to people with mobility disabilities, we will not be able to go home that way. It would be great to hop into a nice, warm cab, well, that's metaphorically speaking. I mean, *roll* into a nice warm cab, but they're inaccessible, too.

We've heard there *are* <u>five</u> wheelchair accessible cabs out there, but where are they? And what chance will one of us have of even seeing one, let alone catching it? I've never ever seen any accessible taxis in NYC and I bet none of you have, either, unless it was being inspected. Eighty-one more cabs won't make enough of a difference. It's not practical.

The days of taxi roulette are over.

We want all 900 new medallions to be used for accessible cabs. That's not all, we want all the rest of the cabs in NYC to be accessible, too. What's the big deal? Accessible cabs can be used by everyone. They are not exclusive. That's the only fair way.

We need and we demand transportation options just like you have.

Thank you,

Jean Ryan
646 77th Street, Brooklyn, NY 11209; pansies@earthlink.net; 718-745-6705

Disabled in Action is a civil rights, non-profit, tax-exempt organization

NEW YORK CITY TAXI AND LIMOUSINE COMMISSION

January 7th, 2004

My name is Edith Prentiss. I am the President of the Manhattan BoroughWide InterAgency Council on Aging as well as a member of the Disability Network of New York City and Disabled in Action. As a geriatric social worker, I have seen many seniors and others with ambulatory limitations struggle into cars and vans, when would be better served in an accessible vehicle, which usually have dropped floors and ramps.

900 new accessible cabs will have little impact on Northern Manhattan, where yellow cabs rarely roam. When spotted they are usually "out of service" after dropping off a trip or going to and fro Bronx garages. We need the implementation and rigorous enforcement of the 'accessible vehicle rule' promulgated in 2000. The fact that the TLC regulated inaccessible ambulettes, makes me wonder the TLC logical processes.

Accessible taxis do not just serve the disabled. Groups of passengers, those with strollers, luggage, shopping carts and assorted bundles will benefit from an accessible taxi. Seniors and others with ambulatory issues will benefit from the addition space rather than being squashed in the few inches behind the barrier and the drivers seat as far back as possible. The handful of accessible yellow cabs presently on the street, have taken on a mythical quality. Terry Mokley saw one. Two disability activists have ridden in them. At last year's accessible cab press conference, the Manhattan Borough President C. Virginia Fields joked about asking to be taken to the garage to see one.

It is unacceptable that in New York City, it is close to impossible to travel in a cab or livery without advanced planning and sometimes even with advance planning. The solution is to require all 900 new medallions, as well as all future medallions, be sold for accessible vehicles and requiring all replacement vehicles be accessible. At the present rate of turnover of cabs, it would rapidly jumpstart an accessible fleet to be hailed on the street.. At the same time, it is essential that the TLC implement and rigorously enforce the "accessible vehicle rule" in all for hire vehicles. This would transform New York City from an inaccessible, one option transportation wasteland

As a disabled New Yorker, I am mostly limited to long hours waiting for and riding buses. Every subway trip is fraught with the possibility of getting stuck when an only elevator breaks down between the MTA accessible travel hotline updates. Yesterday was one such occasion. My plan

1/7/04 TLC- EIS; Edith M Prentiss 739 W 186th St (4E) New York, NY 10033-8527 212-781-8309

was A to 59th, B to Herald Square, Path to Hoboken then WTC (believe it or not, its faster than the A to 14th and a M 20 bus!) But the elevator from the B died after the MTA's Accessible Hotline tape was updated at 6 AM. It was about two hours before the police and firemen got me to the mezzanine, where although the MTA elevator to the street was also down the Path's was working. From Herald Square, it would have been an easy cab ride downtown, but there was, as usual, none to be found.

Neither Access-A-Ride or a Ride for All are the sole solution to the problem. Like many disabled New Yorker, I never re-certified for AAR. Its organization and structure did not meet our needs for spontaneous travel. With only 3 vehicles, it is unrealistic to expect A Ride for All to be able to fill New York City's need for accessible transportation.

In 2000, the 'accessible vehicle rule' was promulgated. It required all 'for hire vehicles', including cabs, black cars and livery, to provide trips in accessible vehicles, with the same fare structure, response time and availability as standard cabs. After 9/11, its 10/31/01 implementation was postponed, indefinitely. On 9/3/02, enforcement began with black cars. When will enforcement be rolled out to the yellows and liveries? What has been the result of the enforcement? Someday, will Operation Refusal (presently enforcing the service dog requirement), have undercover wheelchair users trying to hail cabs and calling liveries for trips?

In 5/03, Rep. Anthony D. Weiner's Queens office attempted to contact the 504 livery companies on TLC's list. When duplicates and those that could not be reached were deducted, there were 415.. 132 (32%) refused all wheelchair trips. Of the remaining 283, 47 (11%) provided accessible services but 30 charged almost twice the cost of a regular trip and some fares more than 10 times as expansive. The 17 who charged the same fare required advanced reservations; some vehicles were being serviced or otherwise unavailable. Only 11 companies (2.6%) met the 'accessible vehicle rule' requirements. (City Livery Car Services Put The Brakes On Wheelchair Passengers - Most New York City Livery Companies Don't Provide Wheelchair Accessible Car Service)

Only by requiring all new medallions and existing medallion replacement only be sold or placed on accessible vehicles and by rigorously enforcing the 'accessible vehicle rule' will disabled New Yorkers have transit options as required by law.

Thank you for the opportunity to address the Commission.

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COMMITTEE FOR TAXI SAFETY
23-10 JACKSON AVENUE
LONG ISLAND CITY, NY 11101

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Good afternoon Mr. Chairman, Commissioners and guests. My name is David Pollack and I am here to testify on behalf of the Committee for Taxi Safety, an association that represents 2500 taxi medallion owners, licensed leasing agents and the five thousand men and women who drive their taxis. I am also a third generation yellow taxi driver.

After reviewing the D.E.I.S. it is our position that the D.E.I.S. will work providing that additional measures are taken to protect the right of the yellow taxi to pick up street hails, to share in any fare increase and to change a few traffic situations.

The report says that with the issuance of 900 new medallions that a fare increase is necessary so that owners can get an equitable return on their investment. To help defray the ever-escalating costs of operating a taxi medallion in New York City, a fare increase is a necessity to maintain medallion prices and maintain income for both drivers and owners. As an example; licensed lease managers and/ or owners pay for insurance premiums.

To continually improve service, the taxi industry must be allowed to pay for service improvements. It is the medallion owners and/or lease managers who pay for these service improvements, not the drivers.

Our free enterprise system regulates itself and should be allowed to continue to do so. As proof, our weekly D.O.V. lease prices are actually lower today than in 1998, despite all the service improvements and increased expenses. What is not broken should not be fixed.

All in the taxi industry must share any fare increase.

I receive phone calls and e-mails from fellow drivers on a constant basis declaring that For Hire Vehicles (FHV's) are illegally picking up street hails throughout Manhattan. It is our right, and only the right of the yellow medallion taxi driver to pick up street hails.

While being a regulated industry, we incur spot checks of our credentials and of our vehicles while fares and passengers that are legally ours, are preyed upon by FHV's. We recommend that part of the $66 plus million dollars of income from the auction of additional medallions be used to protect the public by abolishing the illegal street pick-

ups by these FHV's and provide as much additional enforcement as necessary to accomplish this.

There is no way to protect the public against illegal street pick-ups where the driver may not have a valid license or the vehicle valid insurance.

Yellow taxi industry statistics show that 240 million passengers are serviced a year. Imagine how many more fares we could service if illegal competition were to end. There would certainly be more than enough business for all 13,087 yellow cabs if illegal street practices were eliminated. Ending illegal street practices would end the fear drivers have of losing business after an addition of 900 medallions.

Additionally, heavy traffic during our rush hours does not allow for yellow taxis to transport a peak level of customers. It will be necessary to eliminate some traffic restrictions on yellow taxis. An occupied yellow taxi should be able to use the bus lanes on Madison Avenue and allowed to turn right on Madison Avenue. Yellow taxis should be allowed to turn off THRU-Streets to keep the flow of traffic moving. These actions will allow yellow taxis to pick-up more fares.

In conclusion, the D.E.I.S. will truly work as stated if there is more enforcement against illegal street pick-ups, a sharing of any rate increase by the entire industry and by giving the yellow taxi, road use equality with a few traffic exemptions.

LEAGUE OF MUTUAL TAXI OWNERS
FEDERAL CREDIT UNION No. 1532

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LEAGUE OF MUTUAL TAXI OWNERS, INC.

577 NINTH AVENUE
NEW YORK, N.Y. 10036

January 22, 2004

Peter Mazer, General Counsel
NYC Taxi & Limousine Commission
40 Rector Street, 5th Floor
New York, NY 10006

Re: Draft EIS

Dear Mr. Mazer:

The League of Mutual Taxi Owners and its membership truly believe 900 additional Taxi Medallions is an excessive amount to add to the City streets. However, we understand New York City is in the middle of a financial crisis and we do not intend to protest the sale.

With the addition of these new Medallions we are extremely concerned about illegal pick-ups of street hails by black cars, liveries and gypsies. If this situation is not addressed and put under control then 900 additional Taxi Medallions, in our opinion, will reduce the amount of fares the average taxi driver has by between five or six per day. Based on the average cab ride, this will result in a reduction in income for a Medallion Taxi driver of between $34.00 to $41.00 per day or $204.00 to $246.00 per week.

The Medallion Taxi Industry needs **zero tolerance** for illegal street hail pick-ups. This is a serious matter. The NYPD and TLC Enforcement must concentrate on enforcing existing laws with regard to this issue. We understand there is enforcement now but it is simply not enough. Maybe TLC Enforcement needs to double or even triple their work force. Illegal pickups impact the Taxi Industry now. What happens when the available fares on the street have to support 900 more Medallions? People at airport terminals are solicited. Nine out of ten hotels in New York City are solicited. Illegal street hail pick-ups happen on every avenue in our City. NYPD and TLC must concentrate on issuing more summonses and/or impounding the cars of these offenders. If this problem is not resolved, even with a fare increase, the yellow cab owner/driver will be in the most disastrous financial shape they have ever seen. This can result in many experienced owner/drivers being forced to sell their Medallions, which will reduce the number of experienced drivers and will not be in the best interest of the public.

LEAGUE OF MUTUAL TAXI OWNERS
FEDERAL CREDIT UNION No. 1532

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LEAGUE OF MUTUAL TAXI OWNERS, INC.

577 NINTH AVENUE
NEW YORK, N.Y. 10036

All the League of Mutual Taxi Owners is asking for is that TLC Enforcement and NYPD vigorously enforce laws that are already on the books. There must be a massive drive against illegal pick-ups or the Medallion Taxi Industry will suffer as never before.

We suggest that part of the money from the new Medallion sale go to hiring more Enforcement Agents so that the existing laws can and will be enforced.

One other issue that needs to be addressed is Taxi Stands and especially Taxi Relief Stands. Some stands have been eliminated and some have very restricted hours. In many cases these stands are occupied by privately owned cars, trucks or various government vehicles that are rarely summonsed or removed. In addition, with 900 more Medallion Taxis on the streets, we feel the current number of stands will be inadequate.

Thank you.

Sincerely,

Vincent Sapone
Managing Director

cc: Matthew Daus

VS/sb

COMMUNITY
CONSULTING
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Executive Director
Brian Ketcham, P.E.

January 12, 2004

Mr. Peter M. Mazer
Deputy Commissioner for Legal Affairs
New York City Taxi and Limousine Commission
40 Rector Street, 5th floor
New York, New York 10006

RE: Addition of 900 medallion taxis to existing fleet – CEQR # 03TLC001Y

Dear Mr. Mazer:

900 new medallion taxicabs traveling 63,000 miles a year each will have substantial impacts on New York City that cannot be mitigated by tinkering with traffic signals. 900 new cabs will add about 50 million more miles of travel a year, 90% in Manhattan.

Frankly, I don't give a fig about this action. And, if it results in a fare hike of at least 50% for underpaid taxi drivers, all the better. However, I am insulted by the assertion this will do little or nothing to the environment borne by those who live and work or drive through Manhattan streets. Adding approx. 50 million miles of vehicle travel to Manhattan streets will increase congestion levels, add to traffic accidents and increase environmental damage. It is a statistical fact of life.

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Today, Manhattan suffers $6 billion in economic damages (see attached table) from car and truck use, the consequence of 2 million cars and trucks traveling 4.2 billion miles a year. Every additional mile added to the traffic mess in Manhattan adds exponentially to these costs. 50 million more miles of travel will add another 2 people annually to the number of people killed by autos, another 200 a year seriously injured in more than 1,000 accidents. The societal cost: about $30 million annually.

Congestion alone now costs motorists and businesses $2 billion in losses each year (about a third of the total external costs imposed by car and truck use in Manhattan). Adding 900 taxis traveling 50 million miles a year in Manhattan will increase these losses by nearly $500 million a year according to a study just completed by Komanoff Energy Associates and presented to you today. No alteration of signal timing or phasing will off-set these costs. The so-called proposed mitigation for this action is preposterous.

In spite of the assertions of little or no impact, environmental damages will increase as well. 900 more taxis will increase noise pollution and they will increase air pollution levels, both locally and regionally. These increases in environmental damages will not be as huge as lost productivity but they are real and come with a cost: about $4 million annually.

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It is clear the big ticket items are congestion losses and traffic accidents. Perhaps more people killed and injured and losses to businesses are worth the millions the City will get by selling 900 more medallions. That is something our political decision makers will have to consider. A review of the environmental impact statement shows that none of the above has been reported for this action. They should be. They are a huge part of the real consequences of this action. They are part of the equation decision makers should be using to assess this action. And, within less than a year they will more than offset the benefits to the City of approving 900 more medallions.

Again, I do not care whether or not NYC adds 900 taxis to its fleet. However, whatever decision is made, it should be done considering *all* the facts. They show that Manhattan residents, workers and motorists will pay a huge cost for the so-called "benefits" to NYC.

One last point: There are alternatives to increasing the size of the taxi fleet to increase taxi service. More than two decades ago Konheim & Ketcham, under contract to the New York City Dept. of Transportation, and in full cooperation with the TLC, completed the report, *Reduction of Taxi VMT in the Manhattan CBD*, demonstrating how to dramatically improve taxi service. Working with the taxi industry, K&K recommended dozens of improvements that would result in the effective increase in taxi service far exceeding what would be produced by increasing the fleet by 900 or even 1,500 new taxis. This report, suppressed by the Koch administration because of their insistence on increasing the size of the taxi fleet, was considered at the time the best and most effective way of improving taxi service. It still is. It is time these recommended actions be reintroduced. At the very least they should be reviewed in the environmental impact statement prepared for this action.

Very truly yours

Brian T. Ketcham, P.E.

The writer is a transportation and environmental engineer and co-author of "Reduction of Taxi VMT in Manhattan CBD," prepared for the NYCDOT in 1986.

SUMMARY OF NEW YORK CITY EXTERNALITY COSTS, ESTIMATED FOR 2000

($'S IN MILLIONS)

EXTERNALITY COST	MANHATTAN	BROOKLYN	QUEENS	THE BRONX	RICHMOND	TOTAL NYC	% DUE TO TRUCKS-NYC	TOTAL TRUCKS-NYC	TOTAL NY STATE	TATEWIDE TRUCKS
PAVEMENT WEAR & DAMAGE	$234	$294	$488	$193	$128	$1,337	96%	$1,284	$4,038	$3,876
EXCESS USER COSTS	$84	$99	$171	$71	$29	$455	95%	$432	$2,360	$2,242
VIBRATION DAMAGE	$56	$78	$106	$33	$21	$294	95%	$279	$869	$826
TRAFFIC ACCIDENT COSTS	$1,506	$2,578	$3,843	$1,342	$1,040	$10,309	17%	$1,753	$24,796	$4,215
CONGESTION COSTS	$1,991	$1,897	$2,898	$999	$503	$8,289	20%	$1,658	$17,709	$3,542
AIR POLLUTION COSTS	$1,742	$1,627	$2,541	$884	$484	$7,279	16%	$1,165	$10,025	$1,604
TRAFFIC NOISE COSTS	$504	$413	$654	$243	$124	$1,939	65%	$1,260	$3,122	$2,029
TOTAL EXTERNALITY COSTS	$6,118	$6,986	$10,701	$3,766	$2,331	$29,901		$7,830	$62,919	$18,335

COMMUNITY CONSULTING SERVICES, INC.

To: Barbara Schechter
From: Daniel Robert

I'd like to submit this as testimony to be added to the public comments given on Friday and Monday evenings (1/9 and 1/12) about the 900 new medallions to be sold by the City:

My name is Daniel Robert. I am a 56-year-old power wheelchair using New York City resident. For the last twelve years I have been one of those who have lobbied, demonstrated, begged...for wheelchair accessible taxicabs in the Big Apple. I have been aware that this -- the greatest City in the world -- is one of the few cities in the so-called developed world that does not have a fleet of wheelchair accessible for-hire vehicles on its streets. I realize that the prohibition against radio-dispatched yellow cabs makes 900 new w/c accessible vehicles in a sea of over 12,000 yellow cabs a mere drop in the bucket. But 900 beats the hell out of five(which is what we have now). And it doesn't mitigate against the absolutes necessity of mandating that these 900 new medallions be sold only to buyers who agree to operate them as wheelchair accessible vehicles .

Of course, the City will have to offer some sort of incentive to help defray the cost of conversion of these vehicles, but that is a drop in the bucket towards reparation for the years of neglect and marginalization that New York City's wheelchair users have been subjected to as a result of no accessible taxis.. We are tired of waiting.

I call upon Commissioner Daus to use his influence to push Councilmember Lopez's 900 Medallions Resolution to be introduced at the next session of the City Council Transportation Committee meeting in February and ultimately, signed into law by the Mayor. Commissioner Daus will have a lot to answer for if he fails to support our community in this instance. A lot to answer for. If he acts now, we will be forever in his debt. It's his choice.

Daniel Robert
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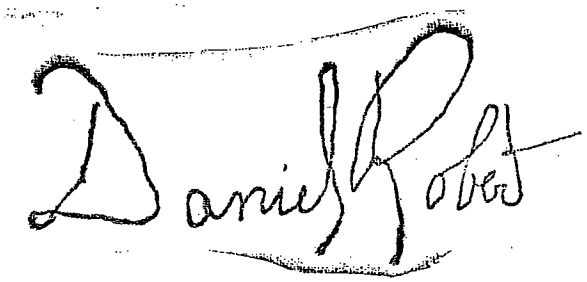

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January 12, 2004

AMERICAN LUNG ASSOCIATION OF THE CITY OF NEW YORK
ENVIRONMENTAL DEFENSE
INFORM
NATURAL RESOURCES DEFENSE COUNCIL
NEW YORK LEAGUE OF CONSERVATION VOTERS
URBAN ENVIRONMENTAL LAW CENTER

Draft Environmental Impact Statement For The Proposed Issuance Of Additional Taxicab Medallions

The Urban Environmental Law Center, New York League of Conservation Voters, American Lung Association of the City of New York, Environmental Defense, Natural Resources Defense Council and Inform, Inc. submit the following comments on the Draft Environmental Impact Statement (DEIS) prepared for the New York City Taxi and Limousine Commission (TLC) concerning the proposed issuance of up to 900 hundred new yellow taxi medallions. We are surprised to learn that the DEIS has concluded that the addition of 900 vehicles, traveling approximately 60,000 miles a year apiece, to the crowded Manhattan streetscape will neither worsen the City's air quality, nor affect its monumental traffic congestion. As you may know, the City's poor air quality has serious corresponding health effects, and its traffic congestion has a huge impact on business activity and quality of life.

We are pleased that, by virtue of Local Law 51 of 2003, the issuance of these medallions will include a mandated offer of nine percent of the total to bidders who will commit to operate vehicles on compressed natural gas or as hybrid electric models. This provision should in a modest way improve the emissions profile of the taxi fleet and lessen the impact of the total proposal on the City's air quality. However, with over

12,000 taxis already on the street, only a miniscule fraction of which run on compressed natural gas, and this seven percent increase contemplated with very little accommodation to its polluting nature, we remain severely disappointed with the TLC's commitment to the environment of the City.

Our chief concern is for the City's air quality. We believe that the DEIS erroneously concludes that the issuance of these additional medallions will not affect the City's ozone problem. Unhealthy ozone levels affect all New Yorkers, but especially the one million who suffer from asthma, including 300,000 of the City's children. In Manhattan, seventy percent of the nitrogen oxides that help raise ozone levels are emitted from motor vehicles, and taxis provide a disproportionately high percentage of vehicle emissions.

The DEIS acknowledges that the City has been designated "severe nonattainment" for ozone, the second worst of five levels of designation under the Clean Air Act. It correctly notes that the United States Environmental Protection Agency has recently determined to lower the existing standard for ozone, and that the City will have to undertake additional steps to meet this stricter standard. It acknowledges that taxis create emissions of nitrogen oxides and volatile organic chemicals, and that these emissions contribute to the formation of ozone. It notes that taxis are high mileage vehicles, often running 24 hours a day, seven days a week, producing extraordinary volumes of emissions. Yet the DEIS fails to analyze in any depth the negative impact these vehicles may have on the existing poor condition, and on any future attempts to meet the new, stricter standard.

The DEIS relies on modeling conducted by the New York Metropolitan Transportation Council (NYMTC) to conclude "the proposed increase in demand-driven trips [by taxis] has already been considered," and its impact on ozone formation presumably accommodated, by unspecified measures relied upon by NYMTC. The theory is that NYMTC has predicted an increase in demand for taxis based upon regional growth assumptions, and that this predicted increase in demand is equivalent to the additional trips that will be generated by the proposed increase in medallions. Reliance on the NYMTC model appears to be inconsistent with the reason for the issuance of the new medallions in the first place: to accommodate trips that would not have been taken in taxis absent their issuance, and we question whether all growth has been accounted for. At a minimum, the DEIS should disclose what measures NYMTC has developed to address the impact of increases in taxi emissions caused by regional growth.

An additional concern is traffic congestion and the effect on bus transit, pedestrian activity, and the ability to move essential goods. The DEIS discloses that there will be horrendous increases in traffic congestion as a result of these new taxis. It estimates how the additional vehicles would affect five heavily congested intersections and their adjacent streets. The analysis discloses that about 27 different approaches to these five intersections and adjacent streets—already experiencing near-gridlock conditions--will become substantially more crowded as a result of these new cabs. The DEIS notes that the technical CEQR standard for judging a whether an intersection will be affected so badly that mitigation must be developed ranges from three to five seconds of additional delay for vehicles attempting to pass through. On many of the approaches

studied in the DEIS, vehicles will experience additional delays of more than ten seconds, double this threshold.

Yet the DEIS concludes that these increases in congestion can be adequately mitigated, as far as the modeling shows, by traffic engineering measures such as changes in signal timing and elimination of on-street parking spaces. Given that many of these streets suffer the worst level of service at present, they will not bear well any lack of correlation between modeling and reality. Moreover, any increase in congestion at these Manhattan choke points will make taxi travel more onerous and may be counter-productive in terms of increasing mobility. It appears especially ironic that the DEIS notes at several points that the key need it seeks to fill is the lack of taxis at peak hours in midtown Manhattan—precisely when the addition of these cabs seems likely to decrease a taxi's ability to compete against mass transit.

Finally, we believe that the DEIS does not adequately address alternative options for solving the perceived shortage of point-to-point transportation supply, and thus the TLC cannot certify that "from among the reasonable alternatives available, the action is one that avoids or minimizes adverse environmental impacts to the maximum extent practicable." 6 NYCRR § 617.11(d)(5); CEQR § 6-12(b)(1). Whether a taxi is available for hail at a given time and location is a function of several variables, including how taxis drivers search for passengers and how taxi owners and drivers decide what hours to drive. The DEIS discloses that in 1999 taxis drove 271 million miles cruising for passengers. Whether that represents a full or maximally efficient utilization of the existing taxi supply is not discussed. The DEIS only looks at the fact there appears to be unmet demand. We contend that the TLC should devise and analyze the impact of regulatory measures that

would result in greater utilization and availability of the existing supply, such as establishing centralized taxi depots at underserved areas throughout the City, establishing incentives to bring more cabs on the street during periods of peak demand, or allowing for multiple passenger rides from the City's airports into Manhattan during peak travel periods. The only alternative that is analyzed is limiting the issuance of new medallions to 600 or less. Inasmuch as this alternative also results in significant adverse impacts that must be mitigated, it is incumbent on the TLC to review other options that do not give rise to such serious environmental concerns.

Thank you for this opportunity to comment.

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