

**"GARBAGE IN - GARBAGE OUT"**

**NYC Dept. of Transportation's Flawed Analysis  
of Closing Central Park Drives to Traffic**

prepared by

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**August, 1992**

## Summary

New York City Dept. of Transportation (DOT) recently completed a study of the traffic consequences of closing of Central Park's loop roadways to motor vehicles. The results of this study are greivously flawed because a number of faulty assumptions were made at the outset. The elaborate calculations in the study cannot make up for these fundamental flaws.

The result: GARBAGE IN - GARBAGE OUT.

This report describes the background leading up to the study, identifies the critical assumptions that are flawed and recommends a better approach to dealing with the problem of too many motor vehicles in a crowded city.

## Background

Central Park is one of New York City's most treasured assets. This oasis of green space was designed 134 years ago to be a tranquil retreat in a densely built-up city. The clever and cherished design, built in a then yet to be developed part of the city, provided grade-separated transverse roads in anticipation of busy crosstown traffic. Self-contained loop roadways -- the Central Park Drives -- were gravel paths designed so that park users in slow-moving horse-drawn carriages could interact with other park users on adjacent walking paths. With crosstown traffic tucked away, the park could be enjoyed by all without interruption.

With the coming of the automobile this changed. Slowly, step by step, beginning at the turn of the Century, the Drives were widened and paved, curves were eased, and the Drives were connected to major arteries at the park's north and south boundaries. Central Park became a beautifully landscaped expressway. During the Lindsay era this horrible mistake was appreciated and the first steps were taken to restrict vehicle use on the Drives. After a tough battle with taxi and limousine interest, the Lindsay administration succeeded in closing the Drives on weekends, evenings and eventually during summer midday hours. Yet they remain open to high-speed traffic during the morning and evening rush hours.

In 1989 Transportation Alternatives, and its Auto-Free New York Committee, initiated a campaign to eliminate all traffic on the Central Park loop roadways. The Koch administration showed little interest in this campaign. Koch's Parks Commissioner Henry Stern moved in the opposite direction, stretching the Friday evening rush period an extra hour. This was to expedite travel for those few city residents who motored to second homes in the country. Following Koch's defeat in the primary, a tough,

close mayoral battle resulted in David Dinkins becoming mayor. Key Dinkins supporters included many members of the environmental community.

Shortly after the new administration took office, in January 1990, Transportation Alternatives renewed its plea for an auto-free Central Park. T.A., together with twenty other civic and environmental organizations, requested a week-long demonstration closing of the loop drives commencing on the 20th anniversary of Earth Day. The test would determine the feasibility of a permanent closing of the loop drives. Not only would a ban on vehicles make Central Park safer and quieter for park users, it would stem the flow of traffic into the crowded core of Manhattan, much like a dam meters and smooths out a potentially harmful flood of water downstream. This would allow the core, the main engine of the City's economy, function better. Closing the drives would also serve as a symbolic gesture, calling attention to the environmental damage caused by the planet's over indulgence in the motor vehicle.

At first the Dinkins administration turned its back on the environmental community and ignored the request. Only after thousands of letters and signatures on petitions, and repeated requests from other elected officials did the Dinkins administration react. Unfortunately, instead of first convening a "blue ribbon" panel of interested parties, as recommended by Parks' Commissioner Betsy Gotbaum, to work out a solid study design, the City's pro-auto Dept. of Transportation commenced a study of the traffic consequences of closing the Drives. DOT ignored information provided by the Manhattan Borough President's office (see Reference 1) and others (see Reference 2), and made faulty assumptions that would inevitably lead to erroneous findings.

The result: GARBAGE IN - GARBAGE OUT.

DOT then showed these findings to key community leaders to scare them into believing there would be catastrophic congestion on streets near the park. The results were made available to concerned environmental groups much later. This report points out the flaws in the DOT analysis and recommends an alternative approach.

#### DOT's Faulty Assumptions

The Manhattan central business district (CBD), the monumental cluster of economic activities in Manhattan south of Central Park, is the nation's largest, and most transit-dependent business center. During the morning peak hour 88.1% of the persons entering the CBD use public transportation and 11.9% use motor vehicles. In the evening 85.1% use public transport. The

proportion using cars would be even smaller if these counts included pedestrians or cyclists, which unfortunately the City DOT chooses not to count.

Nevertheless, even with a very extensive transit system that focuses on the CBD as an option, some 54,000 motor vehicles choose to use the crowded roadways leading into Manhattan in the 8-9am morning peak hour. The bridges and tunnels crossing the East and Hudson Rivers, and the streets and highways crossing the northern CBD boundary at 60th St., that form the "portals" of the CBD, are filled to capacity. Congestion limits highway demand. Motorists don't wait indefinitely, in long queues. Consequently, most CBD peak hour travelers make the common-sense choice to use public transit. However, if more portal roadway capacity were added it seems reasonable to expect that transit riders would shift to autos to fill the void.

#### Faulty Assumption #1 - Zero Shrinkage

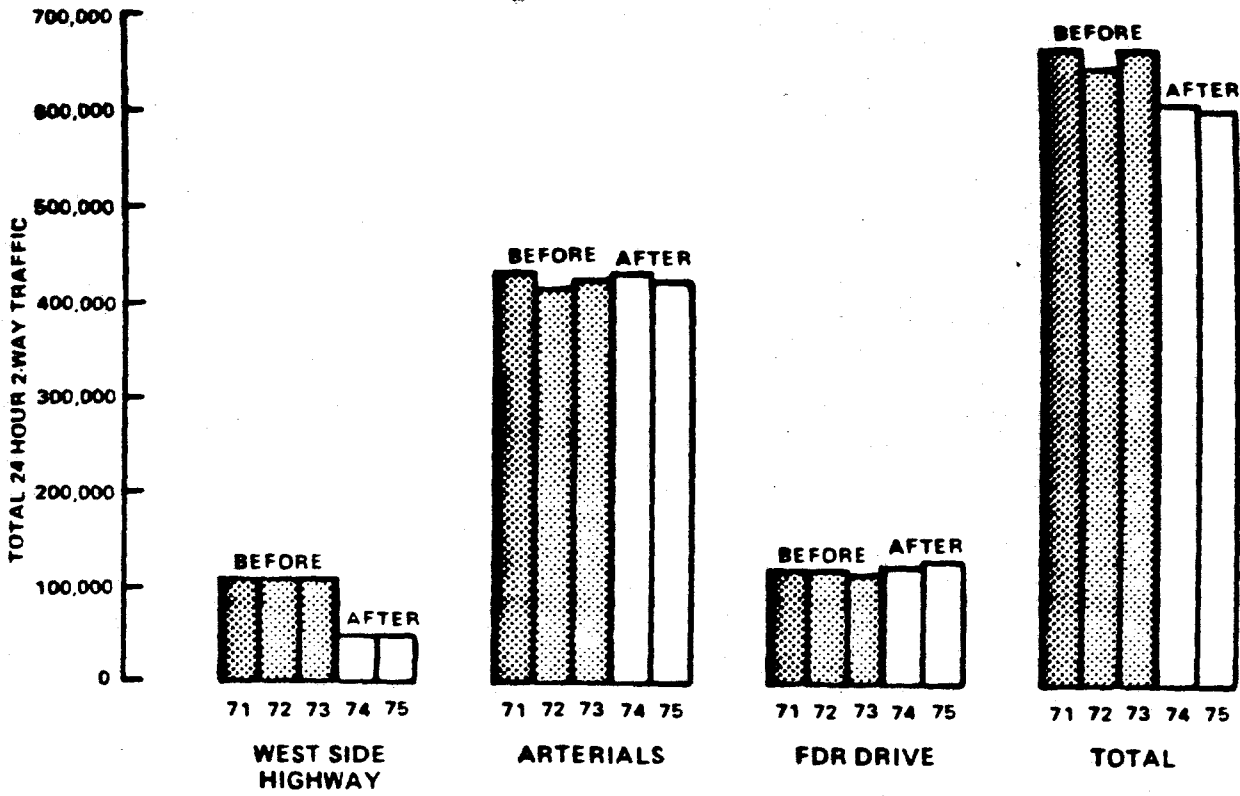
The key flawed assumption in the DOT study is that this process is not reversible; that is -- if roadway capacity in a congested corridor is withdrawn, no reduction, or "shrinkage" as DOT calls it, would occur. DOT assumes that 15% of park drive users would shift to routes beyond its narrowly defined analysis corridor, but this is diversion, not shrinkage.

Our position is that a more reasonable assumption would be shrinkage of greater than 50% and perhaps even close to 100%. This is based on the experience across the 60th St. portal to the CBD in 1973, when the West Side Highway collapsed, and the 72nd-79th street segment of the Henry Hudson Parkway was also closed for repairs. The portion of the West Side Highway that remained open to traffic, from 72nd St. to 42nd St., lost 53% of its traffic load or 59,000 two-way weekday trips. Less than 4,000 of these trips re-appeared on other roads crossing 60th St. This was a 93% shrinkage. The before and after traffic volumes are shown in the accompanying illustration labeled Figure 2 (from Reference 3).

#### Faulty Assumption #2 - Tolerating Level of Service "F"

The DOT study compared volume and capacity at 120 intersection approaches outside of the park. As volume approaches capacity, congestion occurs. Traffic engineers use the term "level of service" (LOS) to describe congestion, with LOS grade "A" meaning free flow. Under current conditions, DOT found LOS "E" at 11 intersection approaches outside of the park, in the morning peak hour, and at 13 approaches in the evening. No LOS "Fs", indicating unstable flow or failure, were found. Inside the park, LOS "E" occurred both in the morning and the evening. In other words motorists used every spare bit of CBD-bound capacity, even on the park drives, putting up with a

**FIGURE 2**  
**AVERAGE WEEKDAY TRAFFIC VOLUME ACROSS 60th STREET**  
**BEFORE AND AFTER THE COLLAPSE OF THE WEST SIDE HIGHWAY**



Source: Traffic Technical Report  
West Side Highway Project  
 Sept. 1976.

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considerable amount of congestion in the process. However, beyond that level, travelers wisely chose not to drive or take taxis.

Nevertheless, in the study, DOT mechanically reassigned park drive users to alternate routes, which were already filled to capacity. This resulted in predictions of six LOS "F" intersection approaches in the morning peak and another six in the evening. Since there were no LOS "F"s in the existing pattern, tolerating this unstable level in the DOT study is a serious flaw. Some other approach to dealing with excess traffic should have been made.

#### Faulty Assumption #3 - Corridor Too Narrow

DOT selected a corridor extending from West End Ave. to Park Ave. for its analysis. This corridor is too narrow. The DOT study used State DOT's 9A data from its Manhattan CBD cordon origin-destination survey. Data for the 7th Avenue exit from Central Park, summarized in the DOT study, clearly shows the wide distribution of destinations of park drive users once they leave the park. As shown in the DOT Study's Figure 9, reproduced in this report, only 1.1% of the park drive users are destined for the zone immediately south of the park. If the drive were not available, many alternate routes could be used, not just those in the narrow corridor assumed by DOT. Furthermore a ripple effect would be expected, since displacement of park drive users onto adjacent streets would in turn cause these users to shift to other routes. This effect could be expected to extend the full width of the northern portal to the CBD, from the West Side Highway and the FDR Drive.

In addition, metering traffic before it enters the Manhattan CBD can have a beneficial effect on traffic flows within the CBD. Yet, the DOT corridor does not extend south of the park, and therefore excludes those effects from its analysis. A key benefit of closing the park drives would be the reduction of vehicular traffic through major pedestrian concentration points in the core of the CBD, particularly at Times Square and Herald Square.

#### Faulty Assumption #4 - No Travel Options Exist

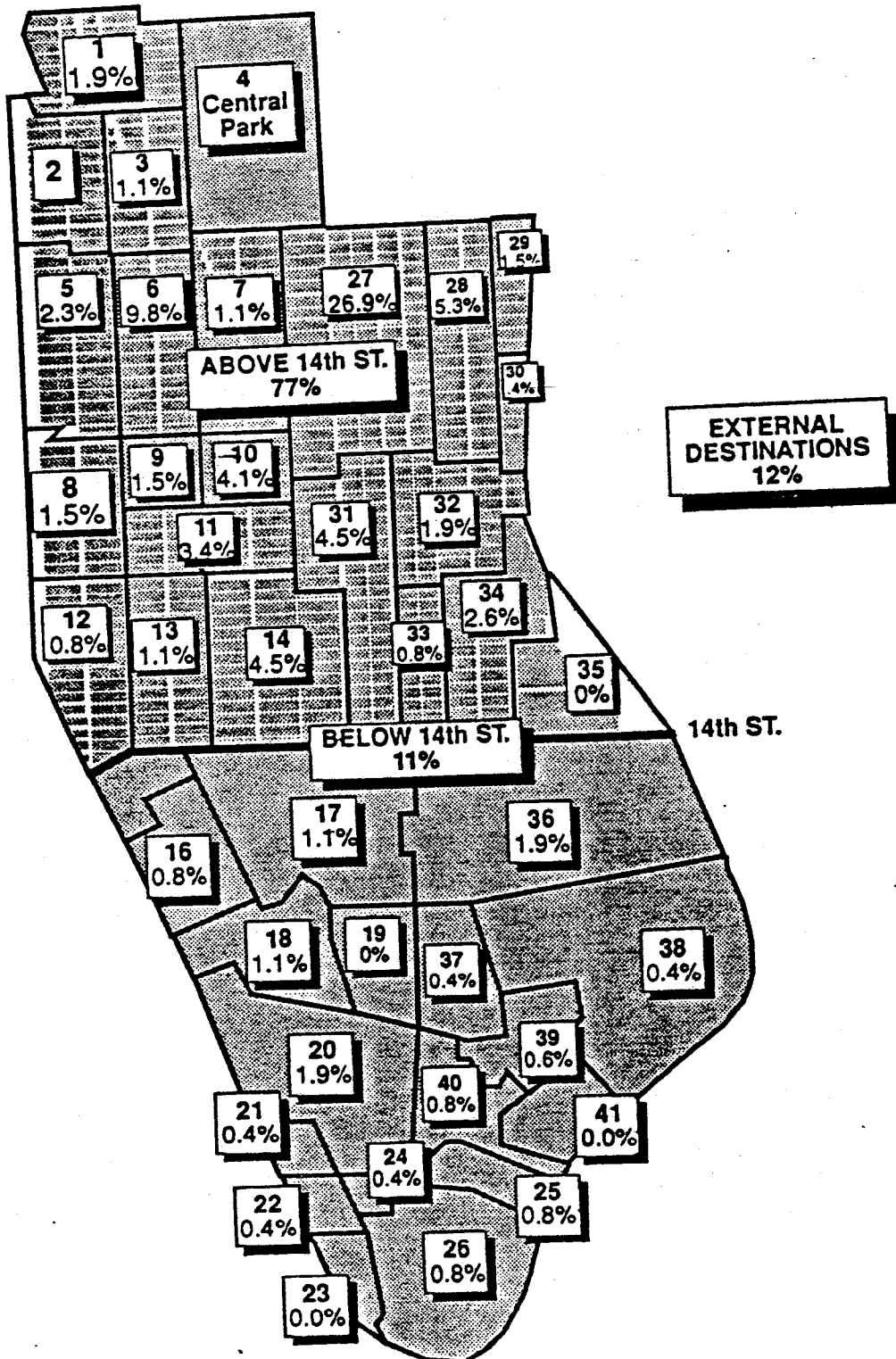
Peak hour travelers are quite sensitive to the relative quality of highway travel vs. other travel modes; with less auto capacity available from the north, motorists will chose other options. To make this shift more acceptable these options should be upgraded where possible.

Eliminating traffic in the park will noticeably improve the walking and cycling environment. Steps can also be taken to upgrade parallel transit service.

Figure 9

# Internal Sectors

## Destinations of Autos Exiting Central Park at 7th Ave



Source: New York State Department of Transportation, Route 9A Project

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Available capacity in the Central Park West subway and the newly opened 63rd St. subway tunnel is a rolling resource. Integrated bus/subway fares would make these subway lines more attractive.

Local bus service in the corridor could also be upgraded. More limited-stop runs, and more generous loading standards would be helpful. Additional "L" shaped bus routes would allow more diverse travel patterns to be served directly without the need for transfers. One example would be a new West Side limited using the Madison Ave. bus lanes, in the evening. Some opportunity for additional dedicated bus lanes also exists. Central Park West, south of 63rd St. could have a contra-flow southbound bus lane, eliminating a dog-leg in this bus route.

The possibility of a low-speed, electrically-propelled tram, using the auto-free park drives, should also be explored. One fifty-passenger tram every three minutes could handle half of the displaced park motorists. The tram would also give an opportunity for older persons and those with mobility difficulties to enjoy the park.

Unfortunately, the DOT study ignores non-auto options.

#### Faulty Assumption #5 - This is only a Traffic Problem

There is no question that closing the Central Park Drives to rush hour traffic will result in fewer commuters using motor vehicles to enter the CBD. Some of these travelers are making through trips and would use bypass routes avoiding the CBD entirely. Others are suburbanites that who would find commuter rail travel an acceptable alternative. Still others are taxi or limo users who only choose to avoid the subway or the bus at present because of the availability of a scenic drive through the park.

The trade-off is between mobility losses to motorists and amenity gains to park users. This analysis cannot be led by a strongly pro-auto NYCDOT. Instead, parks advocates and administrators should participate in this complex analysis.

The DOT study assumed there were no benefits to park users.

#### Recommendations

1. Dealing with the question of "shrinkage" of traffic when the drives are closed is far beyond the limited analysis capability of the NYCDOT. Apparently it also challenges the DOT's ideological underpinning, potentially shrinking the department's turf and budget. In many complex urban phenomena, when analysis systems are unavailable, carefully controlled experiments may be the only way to test the appropriateness of an



action. Faulty assumptions are no more helpful in solving the problem than a shouting match. Instead, a well-publicized two to four week demonstration of the closing is needed.

2. Convening a panel of those who would benefit and those who perceive an inconvenience or a loss is essential. While heartfelt opinions may not change, a better understanding of the issues can be expected. Thus far, key interests that oppose the closing have not come forward directly. Many of these interests contributed to the Dinkins' election campaign, but then so did many of the advocates of the closing.

3. The city must develop a better way to understand the role of the motor vehicle in its quest for a more livable city. Major portions of the city's parks, waterfront and other public assets are devoted to the movement and storage of autos. Studies done by T.A. (Reference 4) and others indicate that auto and truck use in New York City entails substantial direct and indirect public subsidies. The current DOT analysis shows a limited ability to explore these issues.

4. The city should take advantage of the new flexibility now permitted in the use of Federal transport funds and direct a larger share of these resources to expand its transportation analysis capability. Ideally, the multi-million dollar 9A and Congestion/Pollution Relief (CPR) traffic models should be the centerpiece for this analysis system, as it applies to the CBD. Unfortunately, after years of development, these models are not ready for use. Furthermore, they don't extend above 59th St. on the East Side and leave out the Manhattan approach to the Queensborough Bridge as well.

The city must go beyond foisting "faulty" self-serving assumptions on the public and really try to find out how we can restrain the motor vehicle in this crowded city. The long-term economic survival of our city is at stake.

#### List of References

1. Office of Manhattan Borough President Ruth W. Messinger "A Review of the Benefits and Consequences of an Auto-Free Central Park" William Warner and Gale Kaufman. August 1991.
2. Letter to NYCDOT Assistant Commissioner Gerard Soffian from George Haikalis, July 17, 1991.
3. Memo to File 2121 "Is Westway the Best Way?, Tri-State Regional Planning Commission, George Haikalis, July 28, 1978.
4. B. Ketcham, C. Komanoff "Win-Win Transportation", July 9, 1992 (draft).