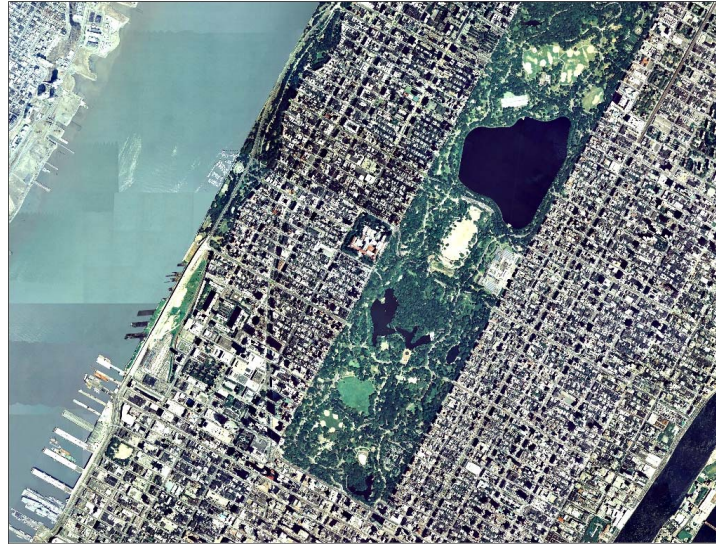


NYMTC September 11th Memorial Program Internship in NYCDOT



West Side Manhattan Traffic and Transportation Study



**Participant: Li Chen (CUNY)
Supervisor: Michael Griffith (NYCDOT)
October 18, 2006**



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Study Goals

- ❑ Improve travel conditions and enhance the quality of life of the people in the study area.
- ❑ Facilitate public and community participation in the planning process.
- ❑ Bring the various stakeholders together and build consensus on problem definition and potential remedies.



Objectives

- ❑ Assess the existing and future transportation demand and needs.
- ❑ Reduce congestion and improve safety for all users.
- ❑ Effective management of curb usage for parking and loading/unloading.
- ❑ Identify problems and generate solutions and recommendations.
- ❑ Develop a package of improvement measures to address existing and future needs.

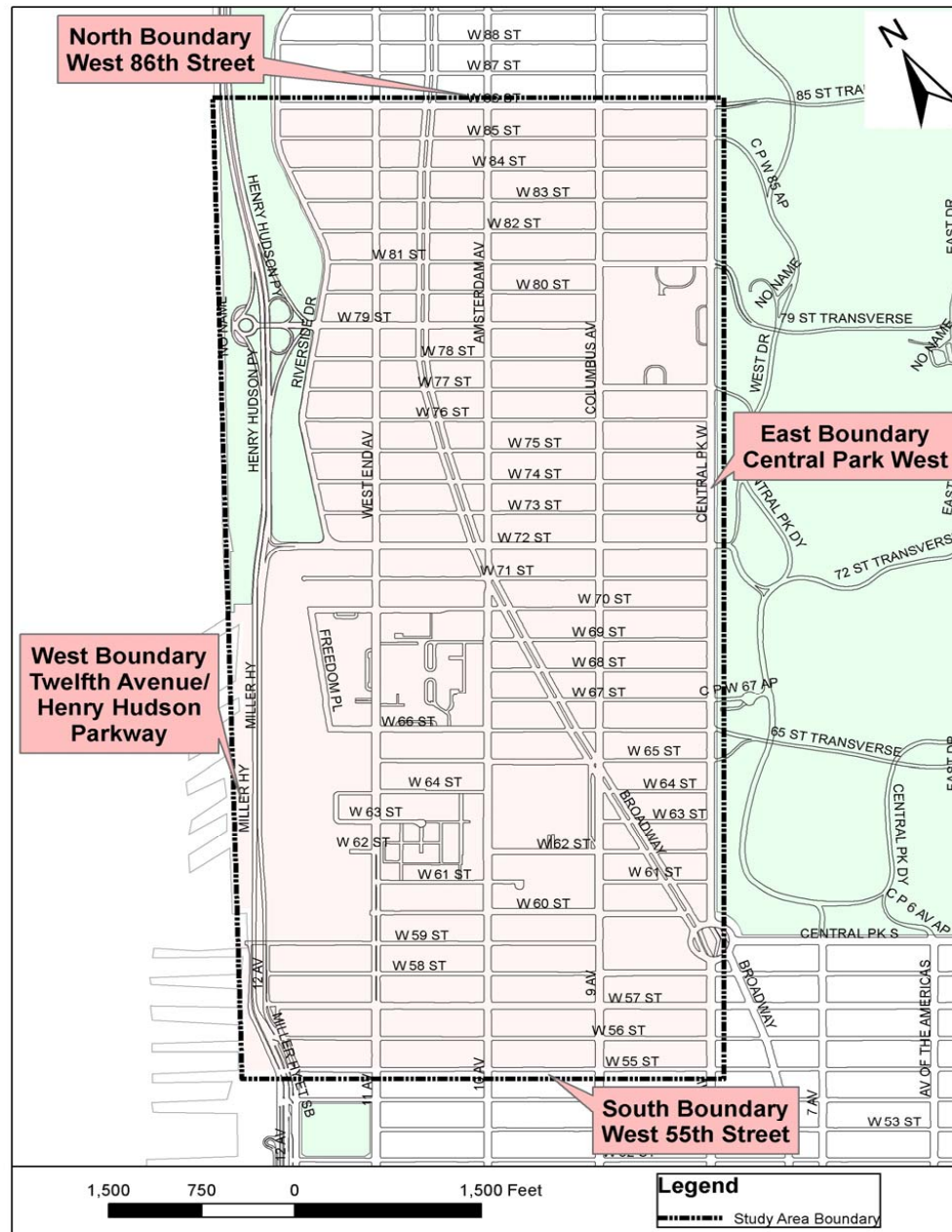


Study Area Location



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Study Area Boundary



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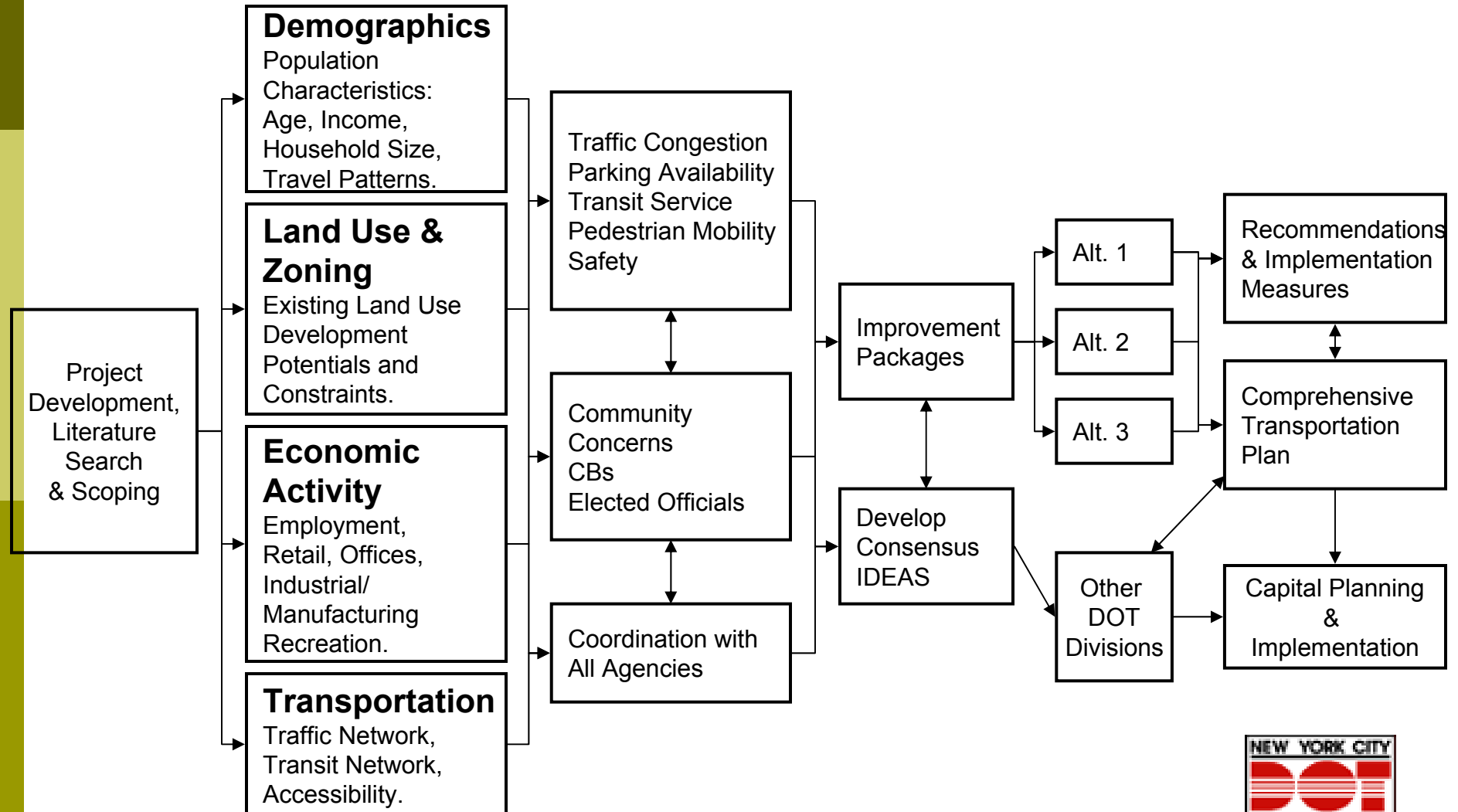
Methodology

- ▣ Assess the existing (2006) and future (2016) conditions.
- ▣ Identify issues, define transportation problems and deficiencies.
- ▣ Develop short term (1-3 years), medium term (5-7 years) and long term (8-10 years) improvement measures in consultation with communities.



Study Process

Project Identification → **Inventory** → **Issues** → **Options** → **Alternatives** → **Plan**



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Existing Conditions Analysis

- ❑ I did the following:
 - Demographics
 - Traffic & Transportation
 - Accidents & Safety
 - Goods Movement
- ❑ Others in NYCDOT did the following:
 - Land Use & Zoning
 - Public Transportation
 - Pedestrian & Bicycles
 - Parking



Existing Conditions Analysis

- Demographics

□ Study:

- 1980, 1990 and 2000 Census Data
- 2 community districts and 18 census tracts
- Population Growth Rate (1.1% & 2.3%)
- Change in the Number of Households (0.5% & 0.4%)

□ Issues:

- Significant Increase in Auto Trips
 - Not anticipated - from historical population data in the study area
 - Anticipated – from future population growth due to many new residential developments in the study area



Existing Conditions Analysis

- Land Use and Zoning

- ❑ Residential: predominantly zoned for residential use
- ❑ Commercial: along the avenues and major streets
- ❑ Manufacturing: in the south-western tip of the study area
- ❑ Various developments and construction



Current/Future Developments

- ❑ Route 9A Reconstruction Project
- ❑ Closure of West 72nd Exit Ramp of Joe DiMaggio Highway
- ❑ Miller Highway Project
- ❑ Riverside South Development
- ❑ West 57th Street Rezoning
- ❑ Hearst Tower Project
- ❑ Other Construction Plans/Proposals
 - Fordham University New Buildings
 - Redevelopment at Lincoln Center
 - Other Residential Buildings



Existing Conditions Analysis - Traffic & Transportation

□ Study:

- Traffic Volume
- Travel Speeds
- Level of Service and Delay

Analyze 30 critical intersections:

- AM peak hour – 11 locations
- MD peak hour – 5 locations
- PM peak hour – 11 locations
- Saturday Midday peak hour – 8 locations

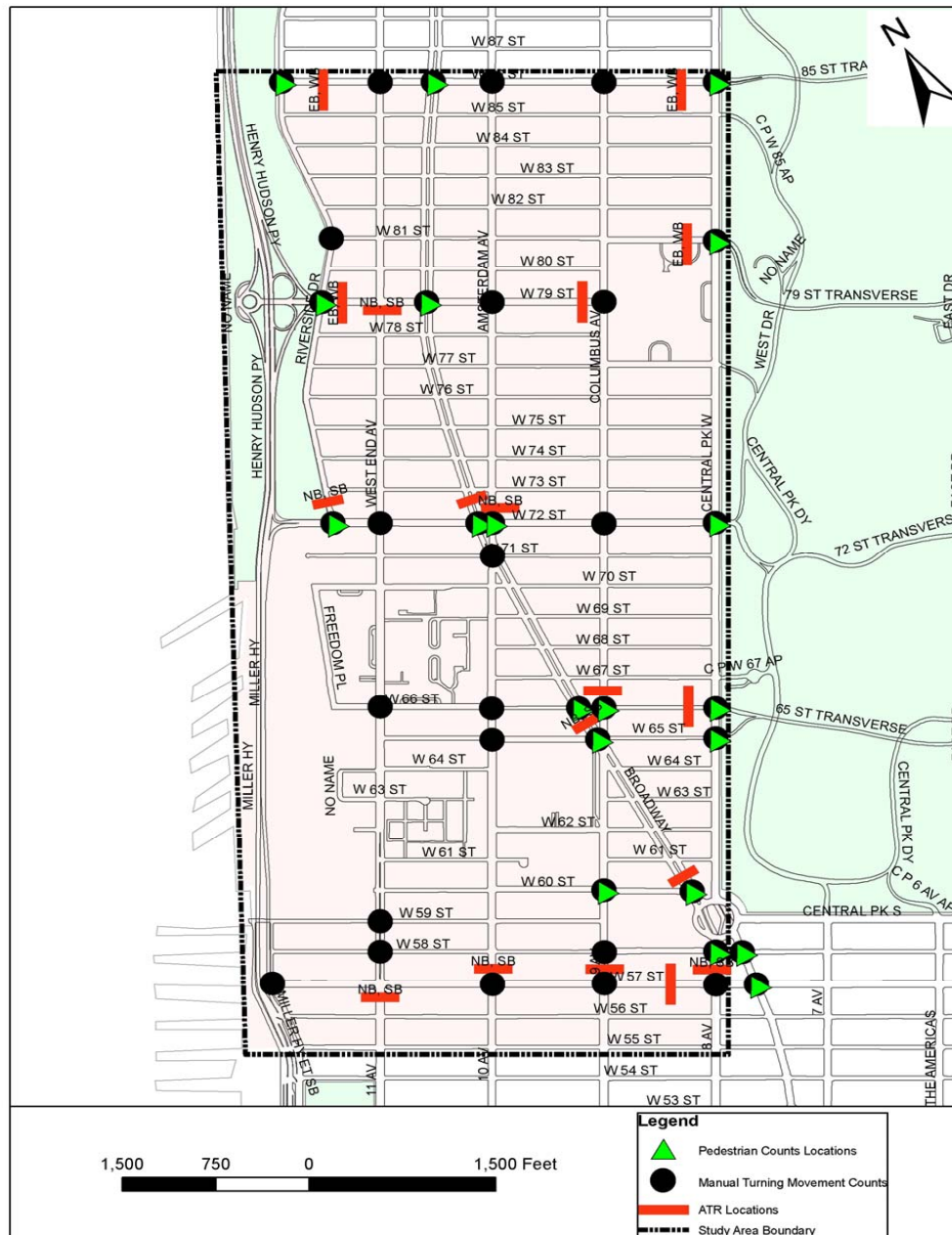
Experienced LOS D or worse

□ Issue:

- High level of Traffic Congestion

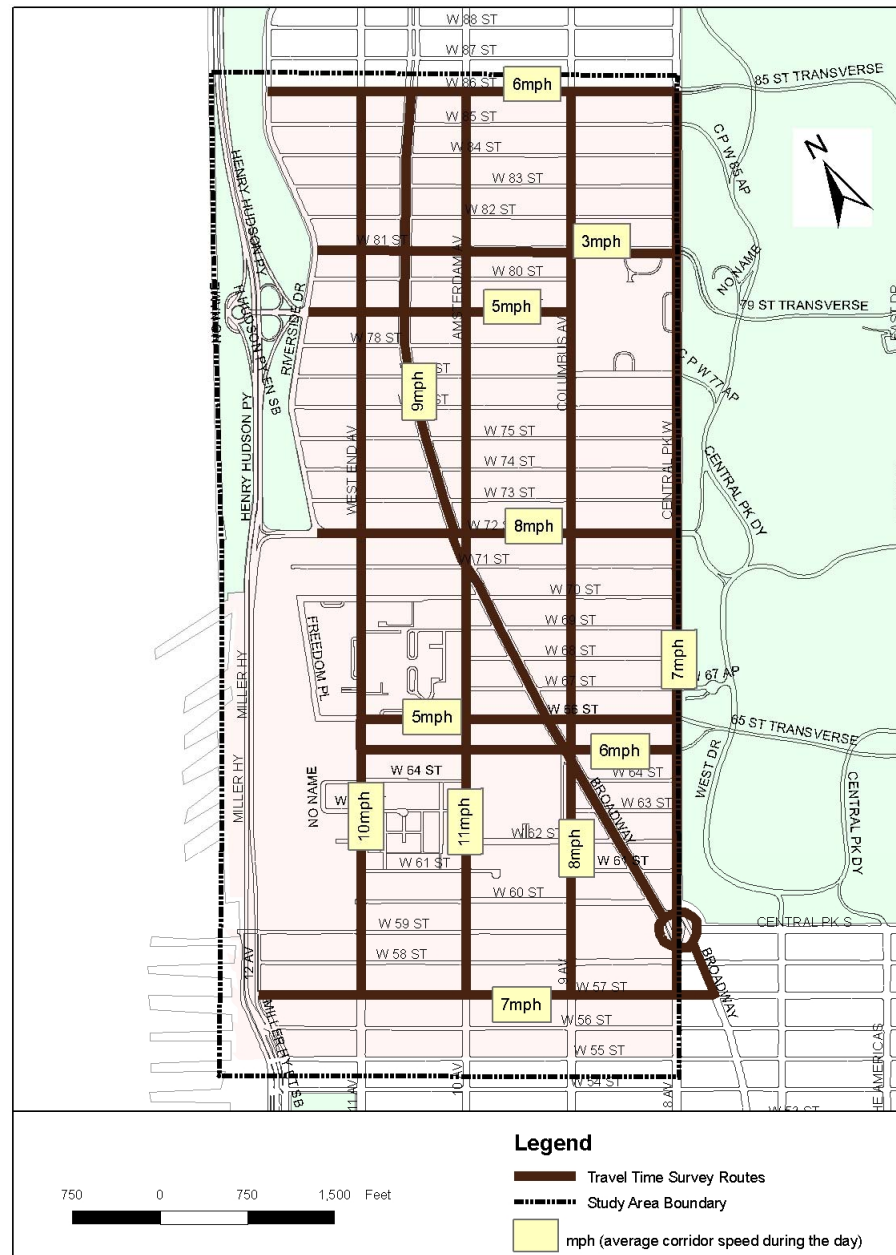


Traffic Count Locations



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Corridors



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Existing Conditions Analysis - Public Transportation

□ Study:

- Transit Services and Facilities
 - Eleven Bus Lines
 - Seven Subway Lines
 - Eight Subway Stations
- Transit Capacity and Volume
- Bus and Subway Ridership

□ Issue:

- Transit Access
 - Limited Spaces at some subway entrances/exits during rush hours



Existing Conditions Analysis - Pedestrian & Bicyclist

□ Study:

- Pedestrian Volume
- Existing Level of Service
 - Survey 20 Critical Locations
 - 5 locations operate at Crosswalk LOS D or Worse
 - 7 locations operate at Corner LOS D or worse
- Pedestrian & Bicyclist Accidents
 - Average 30 Pedestrian Accidents per year (1997-2001)
 - Average 10 Bicyclist Accidents per year (1997-2001)

□ Issues:

- Conflict with other road users – Congestion
- Pedestrian Safety





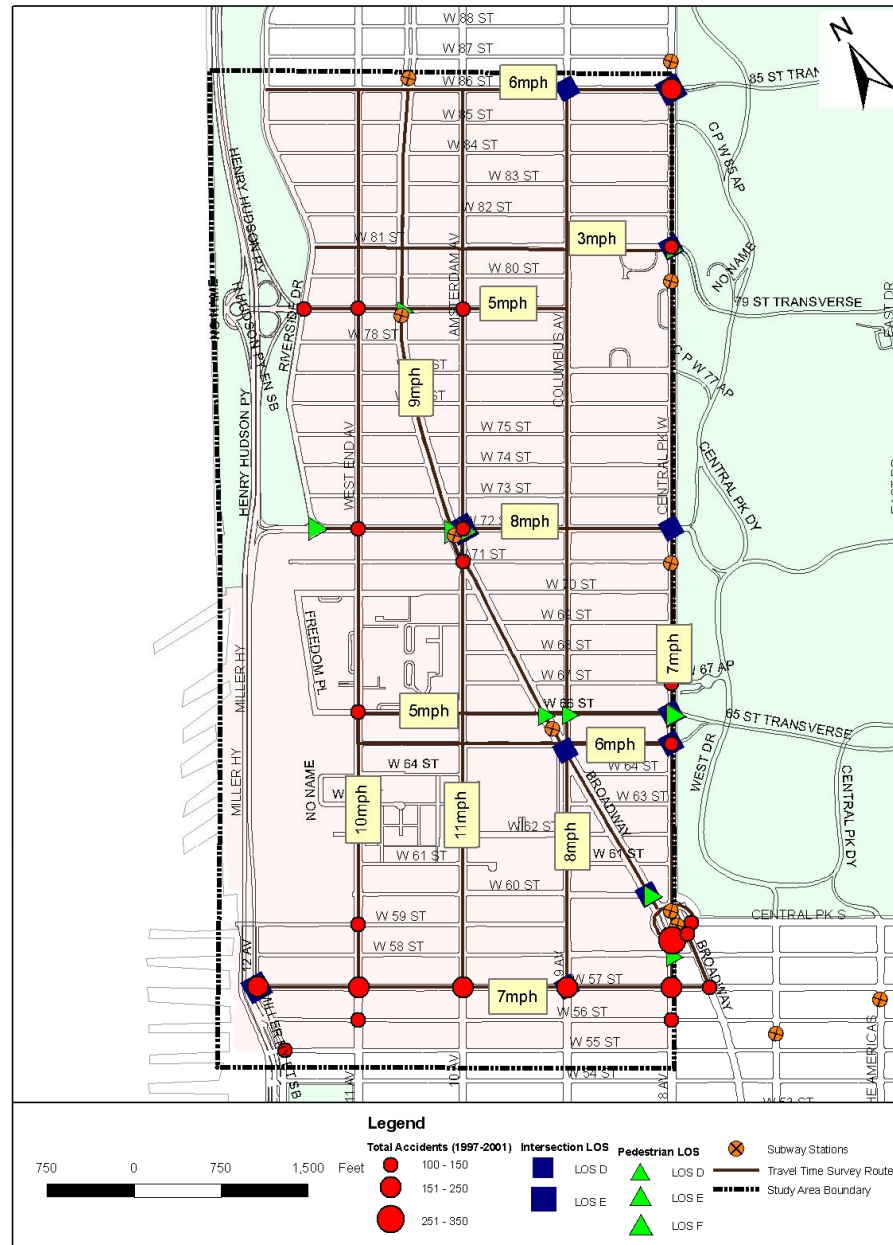
Existing Conditions Analysis

- Accident/Safety

- Identify High Accident Locations (1997-2001)
 - Broadway/Eighth Avenue - highest number of accidents for consecutive five years in the study area
 - Six intersections along West 57th Street are all among the top 10 highest accident locations in the study area
 - 24 High Accident Locations (more than 20 accidents annually)
- Accident Factors
 - Travel Speed and Traffic Volume
 - Frequency/Severity
 - Time of Accident
 - Light/Surface Condition
 - Collision Type



High Accident Locations



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Existing Conditions Analysis - Parking

□ Study:

■ Off Street Parking

- Privately Owned - 68 facilities with a total capacity of 14,427 parking spaces
- Public Parking – Current supply can accommodate the existing demand

■ On Street Parking

- Utilization: Very few empty parking spaces

■ Parking Regulations

- Curb Usage

□ Issues:

- Unlawful Curb Usage for Parking
- Future Parking Demand
- Parking → Traffic Congestion



Existing Conditions Analysis

- Goods Movement

□ Study:

- Existing Truck Routes (Local)
- Regional Access
- The Citywide *Truck Route Management & Community Impact Reduction Study* by NYCDOT

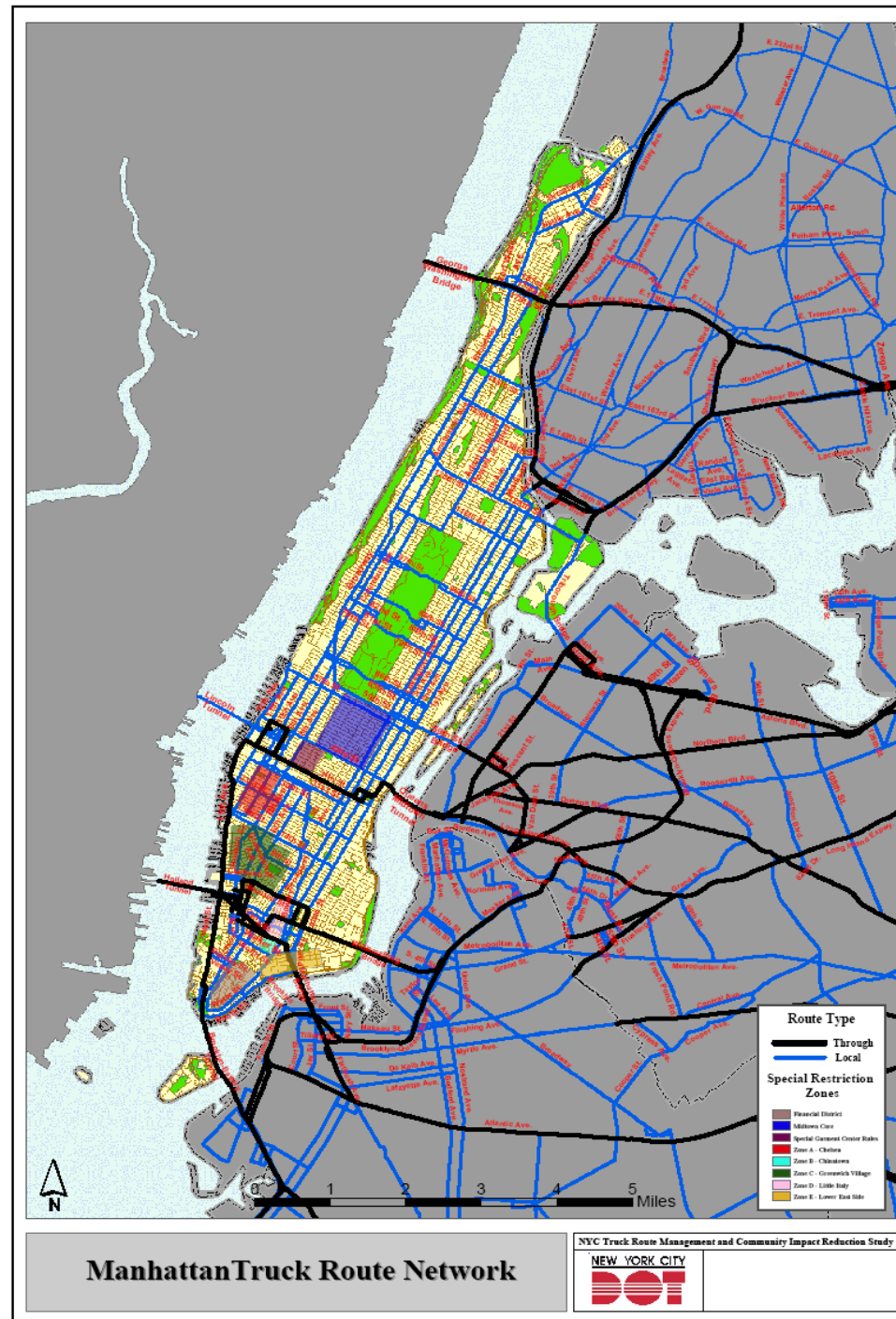
□ Issues:

- Trucks frequently use West End Avenue (not a truck route)
- Curb usage for parking and loading/unloading



Age Group	Percentage
18-24	15%
25-34	25%
35-44	30%
45-54	20%
55-64	10%
65-74	5%
75-84	2%
85+	1%





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Policy Options

□ For Congestion

- Manage Travel Demand

 - New Technologies: Travel Information Services

 - Policy Initiative: Congestion Pricing

- Transit Oriented Development

- Non-recurrent Congestion Reduction/Mitigation

□ For Pedestrian Safety

- Pedestrian Safety Studies

- NYCDOT Safety Program



Policy Options (cont'd)

- For Transit Access

- Reconfiguration

- Provide Sufficient Entrance/Exit and Concourse Spaces

- For Goods Movement

- NYC Traffic Regulations

- Improve Signs for Trucks



Future Work

- Provide more specific improvement measures
 - The detailed future (2016) conditions analysis
 - The community inputs
- Recommendations are to
 - Enhance the management of traffic in the study area
 - Contribute to the overall improvement of transportation in the region.



Acknowledgement

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- Dr. Todd Goldman from University Transportation Research Center, Region II, City College of New York



Thanks
Questions?



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Project Schedule

Project Schedule for West Side Manhattan Transportation Study																		
Project Activities	2005	2006												2007				
	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Project Organization																		
Literature Search																		
Public Outreach																		
TAC Meeting -1																		
Data Collection & Identification of Issues																		
Analysis of Existing Conditions																		
Tech Memo - 1 (Existing Condition)																		
1 Public Forum/Meeting																		
Analysis of Future Conditions																		
Recommendation & Improvement Package																		
Tech Memo -2																		
2 Public Forum/Outreach																		
TAC Meeting - 2																		
Final Report																		



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