

Chinatown Curbside Management Study

LITERATURE REVIEW REPORT

URS

AUGUST 2011

FINAL DOCUMENT

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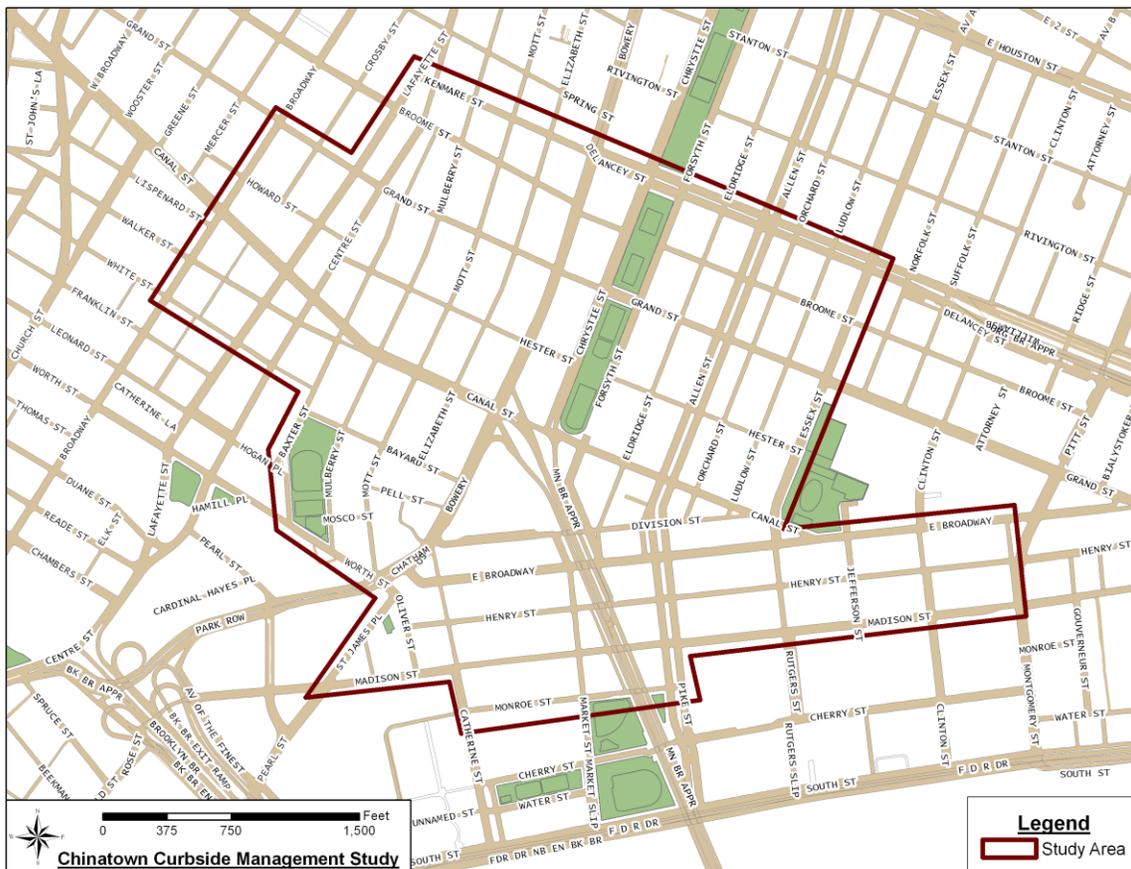
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STUDIES

The following studies were reviewed as part of Task 1: Literature Review of the Chinatown Curbside Management Study (CCMS) to obtain relevant information from recently completed, on-going, and pending projects within the Study Area, as shown in Figure 1. The CCMS study area is bounded by Kenmare and Delancey Streets to the north, Essex Street to the east, Madison Street to the south, and Broadway to the west. In recent years, locations in and around the Study Area have experienced improvement projects, including NYCDOT traffic safety projects and open space enhancements completed by both NYCDOT and the New York City Department of Parks and Recreation. In some cases, these improvements have resulted in a loss of parking. It is important that these projects be considered when studying parking and curbside access, as it is critical that there is a balance of various community needs. This cohesiveness will result in improved quality of life for Chinatown.

Figure 1: Chinatown Curbside Management Study (CCMS) Study Area



This Literature Review Report summarizes each project or initiative, based on the following criteria:

- Agency, Preparer, and Date
- Study Area
- Purpose
- Applicability to Chinatown Curbside Management Study

TASK 1

LITERATURE REVIEW REPORT

- Results, Recommendations, and Next Steps
- Data Collected and Community Involvement
- Project Update (if applicable)

1 CANAL STREET PEDESTRIAN & TRAFFIC SAFETY STUDY (2000)

AGENCY, PREPARER, AND DATE

Manhattan Borough President's Office: Virginia Fields

The Sam Schwartz Company

Summer 2000

STUDY AREA

The study area includes Canal Street from the Holland Tunnel to the Manhattan Bridge, focusing on three major intersections: Laight Street, Vestry Street, Avenue of the Americas, and Varick Street; Centre Street, Walker Street, and Baxter Street; and the Manhattan Bridge, Bowery, and Canal Street.

OVERLAP WITH CCMS STUDY AREA

The CCMS study area contains a small segment of Canal Street, overlapping with about 25 percent of the Canal Street Pedestrian & Traffic Safety Study, as shown in Figure 2.

PURPOSE

This study analyzes traffic and pedestrian safety issues along Canal Street with the intentions of providing short, middle, and long range goals and solutions. The majority of these recommendations address traffic operations; however, several address curbside utilization.

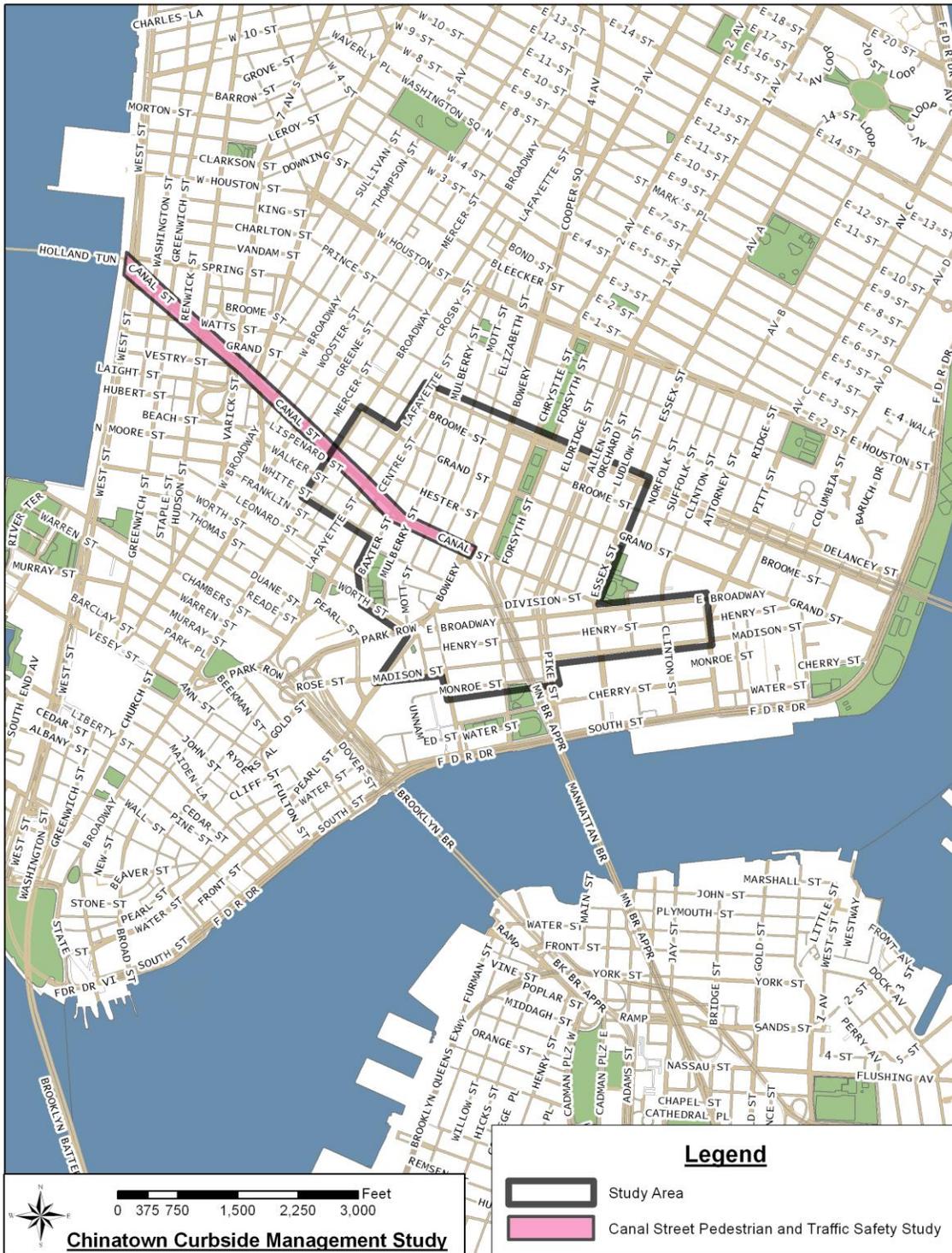
DATA COLLECTED AND COMMUNITY INVOLVEMENT

Automatic traffic counts and manual turning movement counts were collected by the NYCDOT in June 2000. In addition, pedestrian crashes along Canal Street were analyzed from 1996 to 1998. Additional field notes and observations were noted along the corridor.

RESULTS, RECOMMENDATIONS, AND NEXT STEPS

Three categories of issues were identified along Canal Street: pedestrian, motor vehicle, and streetscape. For each issue, short, middle, and long range solutions were identified to improve the safety along the corridor.

Figure 2: Canal Street Pedestrian & Traffic Safety Study Area



TASK 1
LITERATURE REVIEW REPORT

The primary pedestrian issue is the lack of available sidewalk space and various sidewalk obstructions, especially at the corners. In addition, large pedestrian volumes crossing the corridor conflict with turning vehicles. To address these pedestrian-related issues, the study recommends short-term improvements, including coordinating signal timings, adding leading pedestrian intervals, and installing high visibility crosswalks and stop lines to improve safety for pedestrians along the corridor. For the middle and long term improvements, roadway geometry modifications and the installation of traffic calming measures would help to improve pedestrian-related issues in the study corridor.

Motor vehicle issues along the study corridor are attributed to volume and congestion along Canal Street. Congestion is compounded by double and illegal parking, which restricts through traffic to as little as one travel lane. To address these congestion and parking issues, increased police enforcement of existing parking regulations, designating through lanes and turn restrictions, and identifying loading and unloading zones on side streets is recommended. In addition, the reestablishment of two-way tolls on the Verrazano-Narrows Bridge would reduce the number of through trips within the corridor.

Issues related to streetscape related to the physical demands on limited right-of-way and issues related to the character of the corridor and quality of life. This study focused primarily on the physical demands on space such as public telephones, traffic control devices, lighting, mailboxes, and vendors. To address these physical streetscape issues, the removal of extraneous street furniture and enforcing legal vendor locations is recommended. In terms of community character, the development of streetscape guidelines around the neighborhoods along Canal Street would provide an opportunity to implement an improved cohesive streetscape along the corridor.

APPLICABILITY TO CHINATOWN CURBSIDE MANAGEMENT STUDY

The primary focus of this study, in and around the Canal Street Corridor, is to improve the circulation and safety of pedestrians and vehicles and the streetscape along the Canal Street corridor. Although the pedestrian, motor vehicle, and streetscape issues are not directly related to parking, pedestrian safety and congestion is impacted by parking. Congestion is worsened with the prevalence of double and illegally parked vehicles. Moreover, pedestrian safety is hindered in cases where double parked vehicles obstruct motorist's line of sight. The recommendations related to parking (i.e. increased police enforcement of existing parking regulations and identifying loading and unloading zones on side streets should be reviewed for their applicability to the short-term improvements on the blockfaces in the CCMS.

2 THE DYNAMICS OF ON-STREET PARKING IN LARGE CENTRAL CITIES (2002)

AGENCY, PREPARER, AND DATE

NYU Wagner Rudin Center for Transportation Policy and Management
Allison L.C. de Cerreño
December 2002

STUDY AREA

The study area includes nine United States cities (five among the ten most populated cities in the nation, with the remainder in the top 25).

PURPOSE

The purpose of the study was four-fold: to identify and review on-street parking policies and management practices in large cities; determine the impact on-street parking has on transportation, development, and land-use; recommend best practice strategies for on-street parking in large cities; and facilitate a practical exchange between cities of knowledge and problem-solving information to improve on-street parking management.

DATA COLLECTED AND COMMUNITY INVOLVEMENT

The study conducted a literature review on the history of parking planning and regulation, one-on-one discussions with city parking officials, a peer-to-peer exchange session in Boston, and a detailed questionnaire.

RESULTS, RECOMMENDATIONS, AND NEXT STEPS

The literature review of the history of parking planning and regulation emphasized that transportation affects land use by providing access, which allows the possibility of developing higher density development. As highways were built to respond to the increased number of automobiles, increased automobile use was encouraged. In addition to building new roadways, planners accommodated to increased vehicular usage with the addition of parking. However, experts in the field of parking (Donald Shoup and others) have indicated that in many cases the premises of adding new parking are not valid and need more careful analysis. Furthermore, literature about on-street parking is scarce. The minimal literature available describes the links (interaction) between on-street parking, land use, economic development, and travel behavior. As such, a better understanding of the nature of these links is critical for effectively planning and managing on-street parking.

The one-on-on discussions with city officials and peer-to-peer exchange session in Boston examined several facets of on-street parking policy, planning, management, and operations. Describing how the various cities approach these components helps demonstrate the diversity of parking planning and regulations and highlights the various challenges in effectively managing on-street parking. While pinpointing the problem areas is seemingly an easy task, determining the best solution is more difficult, and would benefit from further study and discourse.

Based on the various study elements (literature review, one-on-on discussions with city officials, and peer-to-peer exchange session) several lessons learned and best practice and “potential” best practice strategies were identified. These lessons learned and best practices being employed in various cities are described below.

Lessons Learned

Several factors are important to on-street parking management:

- Basic information on assets and regulations in an accessible format that can be updated and easily shared across departments and agencies;
- Integration and coordination among agencies and divisions;
- Further research; and
- Ongoing peer-to-peer exchange.

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Best Practices

During the peer-to-peer exchange session, several best practices were identified, as follows:

- Congestion/Value Pricing – New York City’s Program for Commercial Parking;
- Meter Technologies – Free Flow Parking, Smart Cards, In-Vehicle Meters, Pay by Phone;
- Institutional Cooperation and Collaboration – Chicago’s Traffic Management Task Force; and
- Public Outreach – Boston’s Program to Involve Merchants in Turn-Over Studies.

APPLICABILITY TO CHINATOWN CURBSIDE MANAGEMENT STUDY

This study reinforces the important of parking planning and regulations, which is the subject of the CCMS. Of the lessons learned, the CCMS should consider how basic information on parking assets and regulations can be input into an accessible format that can be updated and easily shared across departments and agencies. Similarly, the integration and coordination among agencies and divisions is an important factor to on-street parking management, and should be considered as short-term blockface improvements are developed. Moreover, the best practices (in New York and other cities studied) should be reviewed when developing the short-term blockface improvements for the CCMS.

3 REBUILD CHINATOWN INITIATIVE: THE COMMUNITY SPEAKS (2002)

AGENCY, PREPARER, AND DATE

Asian Americans for Equality
Mourad, Warnke & Associates
November 2002

STUDY AREA

The study area includes the Chinatown neighborhood (the exact limits of the study area were never specifically defined).

PURPOSE

The Rebuild Chinatown Initiative (RCI), a community-based planning process, began after the events of September 11, 2001 to identify the specific needs and concerns of the Chinatown community and to provide a comprehensive plan for the future.

DATA COLLECTED AND COMMUNITY INVOLVEMENT

This study is based on an extensive public outreach program, which gathered qualitative and quantitative data. Over 3,000 people responded through one of the three principal means: household surveys; personal interviews; and open community meetings. The public outreach process asked questions pertaining to demographics, housing, employment and income generation, social fabric, and community needs.

RESULTS, RECOMMENDATIONS, AND NEXT STEPS

The survey was divided into three main sections: 1) demographics; 2) attitudes, concerns, and priorities for the community; and 3) employment and income generation.

Demographics (based on 1,797 responses)

- Eighty-eight percent of all responses identified their nationality as Chinese.
- Fifty-eight percent identified Cantonese as their primary language, followed by 17 percent English, 11 percent Mandarin, and 4 percent Fujianese.
- Respondents are fairly well distributed by age (21 percent between the ages 20 to 34; 20 percent between the ages 35-44; 20 percent between the ages 45-54; 12 percent between the ages 55-64; and 19 percent over 65 years of age).
- Approximately half of the survey's population identified their residence in Chinatown, with 27 percent living in Chinatown but working elsewhere, and 24 percent living and working in Chinatown.

Employment and Income Generation

Thirty-nine percent identified their employment situation as 'Working for an employer', followed by 19 percent 'Retired' and 12 percent 'Unemployed'.

Skills and Capacities

The largest number of respondents indicated their skills fall within the Professional category (teaching, accounting, computer work, clerical work, and preparing & serving food, followed by Services, and Manufacturing (including garment work).

Likes and Dislikes

Respondents ranked 'Access to shops' as their primary 'like' in Chinatown, followed by 'Convenience of language', 'Access to services', 'Friends and family', 'Sense of community', 'Access to cultural activities', and 'Low crime rate'. Conversely, respondents ranked 'Odor and noise' as their primary 'dislike' in Chinatown, followed by 'Lack of affordable housing', 'Parking', 'Traffic', and 'Lack of employment opportunities'.

Based on the interviews and community meetings, the following key community priorities were identified: 1) Improving the sanitary conditions of Chinatown (including issues of garbage collection, odor, and pollution); 2) Addressing the affordable housing (and senior housing) demand of Chinatown residents, with respect to both development of new units and rehabilitation of the existing stock; 3) Creating more employment and income generating opportunities for Chinatown's residents, particularly for those stakeholders engaged in the manufacturing sector; 4) Alleviating the acute shortage of parking spaces in Chinatown; and 5) Reducing traffic congestion in the community.

Although a number of other development priorities were also identified, they had less of a consensus among the community's stakeholders; and therefore, were recommended to be considered in the future. For each of the five issues, the community also indicated visions for their alleviation, based on comments from the interviews and meetings.

To address these issues, the report suggests the formation of a community advisory board to set and monitor goals for Chinatown. Within the board, various planning taskforces comprising specialists should also be formed. These taskforces would be responsible for setting goals,

TASK 1
LITERATURE REVIEW REPORT

illustrating alternatives/selection criteria, articulating the community plan’s recommendations, and designing an implementation program.

APPLICABILITY TO CHINATOWN CURBSIDE MANAGEMENT STUDY

Specifically related to the CCMS, the study identified parking as one of five community priorities.

- For the issue of the shortage of parking spaces, the community visions include creating a big parking structure; and building an underground parking garage below Columbus Park.
- For the issue of the parking shortage exacerbated by the proximity to Government buildings, the community visions include providing city agency employee parking in nearby parking garages; creating a rotating parking plan to accommodate government vehicles during business hours and community vehicles during evenings and weekends; and offering free community space or subsidizing the creation of a community center to compensate for the negative impact of reduced parking spaces.
- For the issue of the parking shortage impeding business recovery, the community visions include creating a parking garage to accommodate visitors; creating more short-term parking to accommodate shoppers; allowing tour buses to park on Park Row, which is currently closed to vehicular traffic and residential/commercial parking, installing parking meters along Walker Street, which currently prohibits parking in order to allow for trucks unloading; and installing 2-hour parking meters for visitors coming to the area to shop.

These ‘visions’ should be considered when developing the short-term improvements for the twenty blockfaces in the CCMS.

In addition to recommendations related specifically to parking, this report suggests the implementation of a Business and Cultural Improvement District. This BID could potentially be integrated into the CCMS to help implement community maintenance programs or implement a shuttle to provide better access to Chinatown, as described in the Improvements to Lower Manhattan Connectivity Technical Memorandum.

4 CHINATOWN, WHERE TRADITION MEETS TOMORROW (2003)

AGENCY, PREPARER, AND DATE

Columbia University Urban Planning Studio
Spring 2003

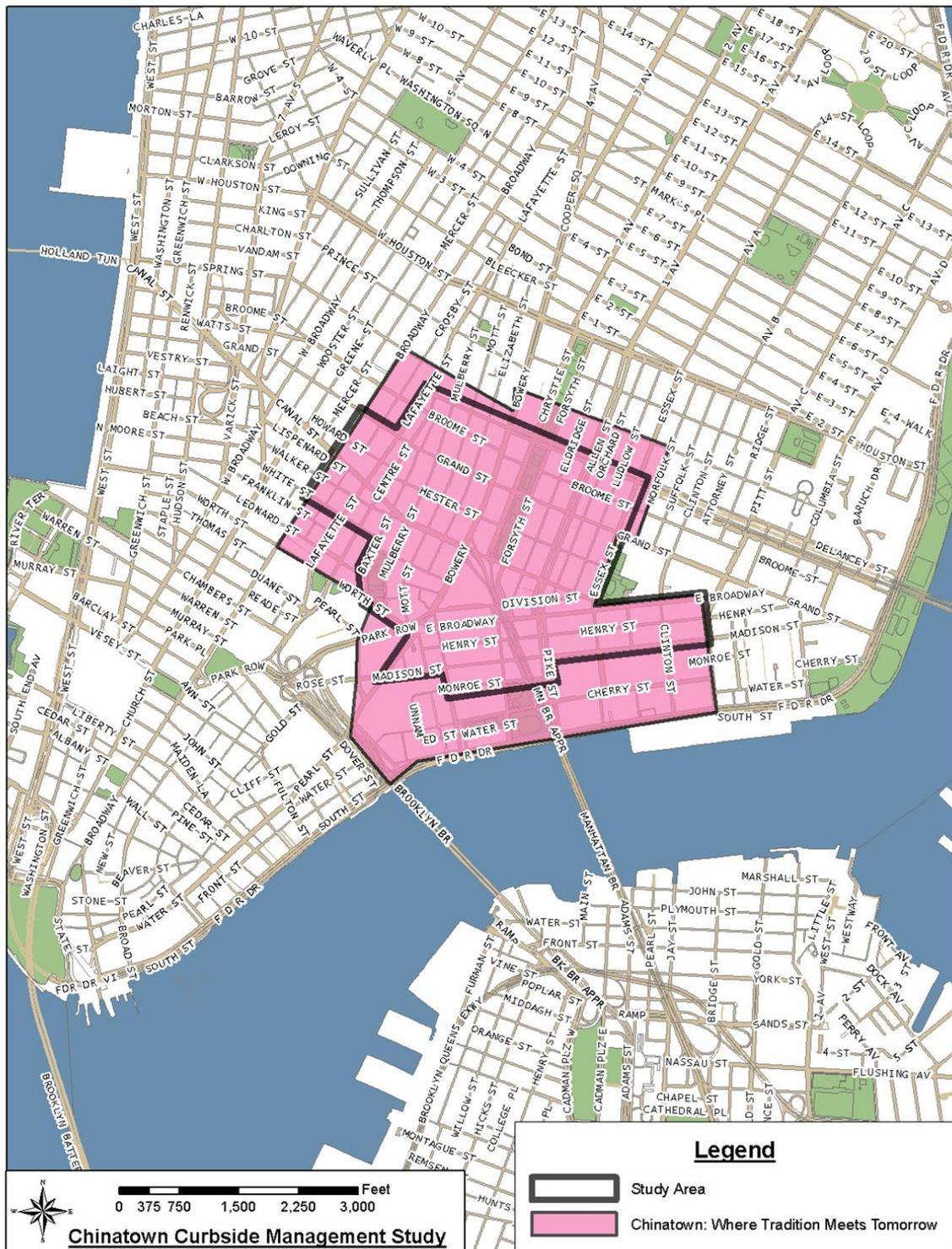
STUDY AREA

The study area includes census blocks with an Asian population of 50 percent or more of the total population, contiguous Census blocks with a population less than half Asian, but with a heavy concentration of Chinese businesses, and several blocks west of Centre Street and north of Canal Street with a large proportion of Chinatown’s garment factories, employing a large number of Chinatown residents.

OVERLAP WITH CCMS STUDY AREA

The study area closely aligns with the CCMS study area, as shown in Figure 3.

Figure 3: Chinatown, Where Tradition Meets Tomorrow Study Area



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LITERATURE REVIEW REPORT

PURPOSE

This study considers issues such as overcrowded housing, inadequate sanitation and transportation facilities, unstable employment, increased globalization of the garment industry, aftermath of the World Trade Center attacks, ongoing economic recession, weakened manufacturing and retail sectors, and gentrification in the immigrant centers of the 20th century, causing land values and rents to rise beyond the reach of recent immigrants. Understanding the land use in the area was an important priority; and in addition, housing, economic, and transportation analyses were undertaken to assess the existing conditions in the neighborhood.

DATA COLLECTED AND COMMUNITY INVOLVEMENT

Data were collected from primary sources (land use survey, traffic and pedestrian counts, and interviews) and secondary sources (United States Census Bureau and various studies published by professional planning and advocacy organizations).

DEMOGRAPHICS

Demographic data for the Study Area were collected from the 2000 Census and compared to historic Census data to determine demographic trends, and compared to data for Manhattan and for New York City, in order to place Chinatown in its urban socioeconomic context.

Economic data were gathered from ZIP Code Business Patterns by the North American Industry Classification System (NAICS), also published by the U.S. Census Bureau. Data from the New York State Department of Labor Apparel Industry Task Force Database of Registered Apparel Manufactures was used to determine the number and exact location of garment factories in Chinatown.

LAND USE

A detailed land use survey of the area was carried out in February 2003. Two land use data sets were obtained before the land use survey was conducted—New York Department of Finance Real Property and Assessment Division (RPAD) data and data from the 2002 Commercial Use Study conducted by Asian Americans for Equality (AAFE). The land use survey was conducted to fill in gaps in these data sets and to clarify inconsistencies between them. Studio members walked the neighborhood and checked about 500 lots with missing or inconsistent data. The aggregate data were used to produce detailed land use maps of the Study Area as well as to identify underbuilt lots. Lots not built to their fullest possible density under zoning regulations, or “soft sites,” were mapped for consideration for potential development.

TRANSPORTATION

Pedestrian traffic counts were performed in April during peak periods: Sunday between 1:00 PM and 2:00 PM, and Monday between 4:00 PM and 5:00 PM on three of Chinatown’s busiest streets (Canal Street, Mott Street, and East Broadway). A sidewalk inventory was also performed on these streets. Vehicular traffic counts were performed on Canal between Bowery and Elizabeth in March during weekday peak periods between 7:00 and 9:00 AM and 4:00 PM and 6:00 PM.

INTERVIEWS AND LITERATURE REVIEW

Interviews with community stakeholders and planning experts were performed to answer questions that arose during research, help identify areas for future investigation, provide insight into community needs, and assist in prioritizing specific issues.

A variety of reports by different organization were used for background information, including publications by organizations such as Asian American for Equality, the Asian American Legal Defense Fund, and the New York Industrial Retention Network, as well as academic literature.

RESULTS, RECOMMENDATIONS, AND NEXT STEPS

Major obstacles to Chinatown's development related to its economy, housing, and connectivity to the rest of the city were identified.

ECONOMIC DEVELOPMENT

The manufacturing industry is the largest employer of Chinatown residents. However, this industry (particularly the garment industry) is being threatened by rising real estate values.

The retail and restaurant industries are Chinatown's other major employers. Taking into account both industries, economic development plan recommendations fall within two categories. Some seek to preserve aspects of the existing Chinatown economy, while others strive to develop new industries.

Garment Center Subdistrict

A Garment Center Subdistrict is proposed to protect existing manufacturing uses in the area from conversion to residential and commercial uses. Within this subdistrict, conversion of existing manufacturing space to any other use (i.e. residential or commercial) would be strictly forbidden. All current non-manufacturing uses would be grandfathered in. However, if a non-manufacturing tenant vacates loft space suitable for manufacturing, the owner of the building must give priority to manufacturing uses.

Manufacturing Incubators

Manufacturing incubators, buildings typically run by non-profit organizations devoted to the promotion of the manufacturing industry are also proposed. Manufacturing tenants are offered long-term leases at manufacturing rates protected from the pressures of the real estate market. Long-term leases provide security for making capital investments.

Funding for incubators would come from a variety of sources, including the creation of a "Conversion District" to generate revenues for the retention of manufacturing in Chinatown. In the Conversion District, all conversion restrictions would be removed and building owners would be allowed to convert to residential uses as-of-right. In order to convert their property, owners would pay a conversion fee based on the amount of floor area converted.

In addition to the manufacturing sector, new sectors would be developed to ensure resistance to economic crises. Food manufacturing, jewelry and herbal retail, and tourism have been identified as potential growth industries for the area. Heritage tourism initiatives, the redevelopment of Chatham Square, and the reuse of the East River waterfront would allow the neighborhood to take advantage of its proximity to South Street, the municipal district, SoHo, and Little Italy.

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Chatham Square

A cultural and commercial center in the neighborhood would be needed to showcase cultural events and serve as a hub for tourism and commerce. The redeveloped Chatham Square would provide the location for this cultural and commercial center. The square's redevelopment would involve its reorganization into a pedestrian-friendly square and mass-transit hub, the development of two new buildings housing cultural and commercial uses, and the addition of a large, Chinese-style arch symbolizing the intersection of the old and new Chinatowns.

Catherine Street Improvements

Catherine Street corridor improvements, including the narrowing of the street width to 40 feet and developing ground floor retail, would be used to encourage pedestrian connectivity between the East River and Chatham Square.

Catherine Street Market

To increase the quality of the waterfront and add vitality to the area, a large market and jewelry center would be created along Catherine Street between Monroe and South streets by condemning these properties (a storage warehouse, a vacant restaurant, and a small park) and redeveloping the two lots.

Chinese Garden Pier

Across from the Catherine Street market, improvements to the Catherine Street Pier would boost use and enjoyment of the waterfront. This pier would serve both the residents of Chinatown and its visitors and could house a large Chinese garden, a restaurant and bar, as well as a ferry terminal.

TRANSPORTATION

Pedestrian and vehicular traffic flow in Chinatown is often impaired by congestion and physical obstructions. Overcoming these challenges would facilitate commercial activity in Chinatown and increase the number of visitors to the area. Moreover, greater ease of movement throughout the neighborhood would also improve the quality of life of its residents and enhance the experience of its visitors.

Canal Street

This principal east/west artery is plagued with vehicular and pedestrian congestion and a high incidence of accidents. Short-term measures (also identified in a 2000 traffic study) include coordinated signal timing, high visibility cross-line and stop signs, and signals that provide pedestrian leading time. Long-term recommendations include the introduction of traffic calming devices that extend the sidewalk, consolidation of sidewalk furniture, and enforcement ordinances to regulate sidewalk vendor space. These strategies to improve Canal Street focus on helping to serve both Chinatown residents and businesses.

Pedestrian Connections

Chinatown is isolated from the Financial District and South Street Seaport by the Brooklyn Bridge and the Alfred E. Smith Houses. The lack of connections to these other sections of Lower Manhattan reduces the flow of visitors to Chinatown. As a result, several improvements to the pedestrian connections that traverse the Brooklyn Bridge and the Alfred Smith Houses are recommended.

Along both the Cardinal Hayes Place and Rose Street connections, the path of travel should be made clearer by laying colored or textured walkways and by installing signage that direct people to Chinatown. Also, the security measures at Rose Street should be removed or be made permanent in

a fashion that is less imposing. The red brick area should be utilized as a seasonal outdoor dining terrace, and the unused space under the bridge should be developed into a museum.

Along Pearl Street, commercial infill should be added to provide an intermittent street wall and more lively pedestrian experience. In addition, these portions of Pearl Street and St. James Place should be renamed the “New Bowery” to indicate their continuity with the Bowery to the North.

Along South Street, the sidewalks should be widened, crosswalks marked, and improved signage directing people to Chinatown should be installed. Underneath the viaduct, the chain link fences should be removed and improved lighting should be installed.

Finally, the pedestrian paths traversing the Alfred Smith Houses should be reconfigured to make the superblock easier to traverse from the streets along its perimeter.

Chatham Square Reconfiguration

The creation of a business hub is important to the future of Chinatown’s economy, and Chatham Square is ideally suited for this function. It is a central and accessible location that will be even more so after the opening of the nearby Second Avenue Subway station. Moreover, the scale of the square is large and already contains several tall, commercial buildings along its periphery. The hope is to encourage future development by making Chatham Square easier to navigate for both pedestrians and traffic.

A reconfiguration would create clear north-south and east-west corridors that would clarify the direction of travel in all directions. It would also reduce the number of streets intersecting in the square by having Mott Street flow into Worth Street.

Bus Terminals

Two sites were proposed to serve as a station for the many buses that operate on inadequate and narrow public streets.

- The west side of Pike Street between East Broadway and Division Street – a site currently occupied by a Mobil gas station and by a one-block unused strip of street.
- Closer to the Manhattan Bridge, at the Forsythe street bend – an underused site occupied only by auto repair shops.

APPLICABILITY TO CHINATOWN CURBSIDE MANAGEMENT STUDY

The findings and recommendations should be reviewed in coordination with the public involvement efforts for the CCMS and incorporated as short-term blockface improvements, if applicable.

5 ALLEN & PIKE STREETS, A COMMUNITY VISION (2004)

AGENCY, PREPARER, AND DATE

Project for Public Spaces, Inc.

April 2004

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STUDY AREA

The study area includes the Allen and Pike Street corridor, extending about one mile between Houston Street to the north and South Street to the south near the East River waterfront. Allen Street becomes Pike Street at East Broadway where a southbound spur of Allen Street ends.

OVERLAP WITH CCMS STUDY AREA

Allen and Pike Streets traverse the CCMS study area, as shown in Figure 4.

PURPOSE

Funded by a grant from the JM Kaplan Foundation, the Project for Public Spaces, Inc. was engaged by a coalition of neighborhood organizations (UNRAP: Uniting Neighborhoods to Revitalize Allen/Pike Streets), including:

- Lower East Side Business Improvement District (BID)
- Asian Americans for Equality (AAFE)
- Lower East Side Tenement Museum
- Two Bridges Neighborhood Council
- Councilman Alan Gerson’s Office

The purpose of this community based study was to come up with a bold new vision for Allen and Pike Streets.

DATA COLLECTED AND COMMUNITY INVOLVEMENT

As a means for gathering critical information for the study, three community workshops were held with local residents. In addition, several stakeholder meetings were held with a diverse group including the UNRAP, New York City agencies, Community Board 3, and the New York Metropolitan Transportation Council (NYMTC). These workshops and meetings focused on the assets and challenges of the streets, short-term and long-term improvements, and an overall vision for the streets. Workshop participants were asked to evaluate specific blocks and intersections on Allen and Pike Streets between Delancey and South Street down to the East River. Discussions with the representatives of these organizations were focused on the overall plans for the area, concerns regarding the streets, and the feasibility of various improvements.

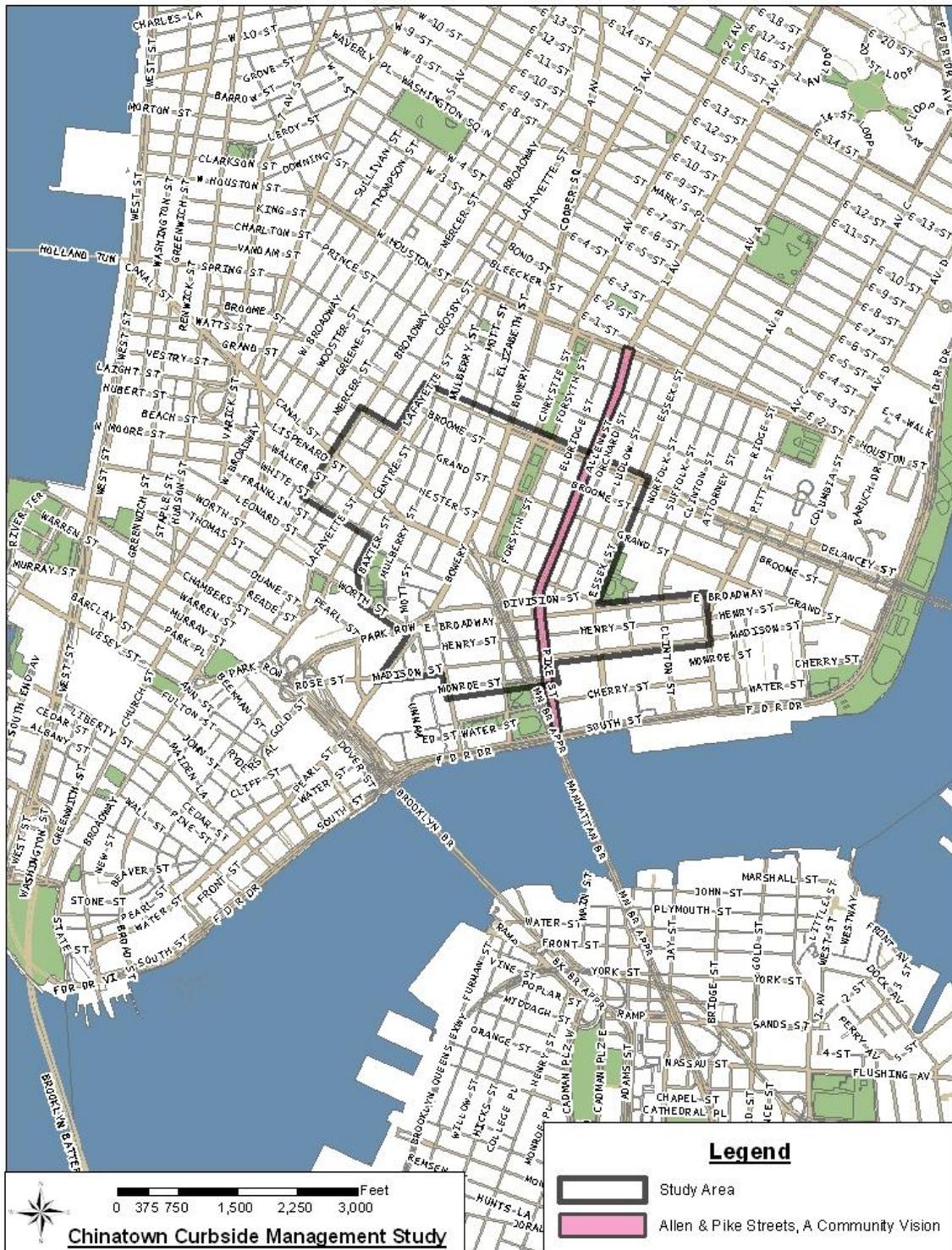
RESULTS, RECOMMENDATIONS, AND NEXT STEPS

The community groups and neighborhood stakeholders were united in their desire and enthusiasm to see Allen and Pike Streets become a beautiful, green boulevard linking the distinct communities of the Lower East Side. Specifically the following categories were identified.

TRAFFIC CONCERNS AND ROAD WIDTH REDUCTION

Participants at both workshops expressed serious concerns regarding the danger of crossing Allen, Pike, and Delancey Streets due to their excessive width and high traffic speeds. Participants at all workshops were overwhelmingly in favor of calming traffic and reducing road width by removing a traffic lane in each direction.

Figure 4: Allen & Pike Streets, A Community Vision Study Area



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WIDER SIDEWALKS VERSUS WIDER MEDIANS

The additional space (approximately 22 feet) gained from removing a traffic lane in each direction (as described above) could be used for bike lanes, widening the medians, widening the sidewalks, or a combination of all three. The opinions of workshop participants and agency representatives differed on the relative merits of these options.

REFURBISHED MEDIANS

Almost all participants consider the medians and sycamore trees unique features of Allen and Pike Streets that should be beautified whether or not they are widened (as identified as an option above). Participants agreed the medians should serve the needs of the surrounding neighborhoods and residents.

BIKE LANES

Allen and Pike Streets are currently designated as bike routes (shared bicycle and vehicular space). Residents expressed enthusiasm for seeing a dedicated bike path or bike lanes running the length of the street and providing access to the waterfront. However, the heavy cross-town and left-turning traffic between the medians on Allen Street could make a continuous bike path on the median hazardous. Similarly, bike lanes adjacent to the parked cars may frequently be blocked by loading activity and double-parked cars.

SHORT-TERM IMPROVEMENTS

While the improvements discussed above require further study, short-term improvements (or pilot programs) were recommended to determine a final revitalization plan for the Allen and Pike Street corridor. The completion of the New York City Department of Parks and Recreation's plan for the median between Delancey and Broome Streets was recommended to provide an opportunity to evaluate the levels and types of activity on a newly landscaped and attractively furnished median. Possible new uses with neighborhood partners could include a market on the medians and closed "spur" north of East Broadway, a night market or neighborhood festival in the street on a block north of Delancey Street, bus shelters providing historical and way-finding information, or open access to the waterfront through the Jersey barriers and the chain-linked fence at South Street. Similarly, a striped neckdown at Houston Street was recommended, as well as additional traffic calming measures at major intersections such as Delancey, Canal, or Cherry Streets. For the medians and sidewalks, planters filled with flowers or trees were recommended. These planters could be maintained by neighborhood groups.

NEXT STEPS

To implement short-term and long-term recommendations, continuing community and stakeholder input is necessary. This study recommended creating an entity to:

- Ensure Allen and Pike Streets get funding, public attention, and ongoing management as part of a larger revitalization program for Chinatown and the Lower East Side;
- Apply for public and private grants;
- Involve the community in carrying out short-term improvements;
- Work with the city agencies to implement the long-term plan
- Serve as project manager for construction;

- Set up a self-taxing mechanism to manage, maintain, and continue to improve the public spaces;
- Provide the historical research and broad intercultural perspective needed to transform the streets into the “Avenue of the Immigrants”; and
- Sponsor festivals and events that unite the surrounding neighborhoods.

In addition, a thorough traffic and pedestrian study is necessary to collect more information from the community and to develop long-term improvements.

APPLICABILITY TO CHINATOWN CURBSIDE MANAGEMENT STUDY

The findings of the workshop/meetings should be reviewed in coordination with the public involvement efforts for the CCMS, and incorporated as key topics and issues, if applicable. In addition, the improvements along Allen and Pike Streets should be considered when developing the short-term blockface improvements.

PROJECT UPDATE

In 2009, the NYCDOT installed four pedestrian plazas and a center median protected bike path running from Houston Street down to the East River, the city’s first center-median protected bikeway. Improvements along Pike Street are shown in Figure 5.

In 2010, an Environmental Assessment was prepared for improvements involving reconstruction of six existing sections of the median malls on Allen Street between Delancey and Hester Streets and on Pike Street between Madison and South Streets. The improvements would involve reconstruction to provide a unique pedestrian park promenade serving as a linear community park linking the adjacent Lower East Side, Two Bridges, and Chinatown neighborhoods to the East River. The median improvements would provide public green space, recreational space, and amenities in an area that has a strong demand for open space south of Delancey Street. Following the environmental review process, the project is currently under construction by the Department of Parks and Recreation. Estimated completion is Spring 2012.

Figure 5: Allen and Pike Street Improvements



<http://www.streetsblog.org>

6 AMERICA'S CHINATOWN: A COMMUNITY PLAN (2004)

AGENCY, PREPARER, AND DATE

Asian Americans for Equality

Phillips Preiss Shapiro Associates

April 2004

STUDY AREA

The study area includes Houston Street to the north, East River to the east, Brooklyn Bridge to the south, and Broadway to the east.

OVERLAP WITH CCMS STUDY AREA

The study area closely aligns with the CCMS study area, as shown in Figure 6.

PURPOSE

This report establishes three goals and eight initiatives as part of the Rebuild Chinatown Initiative in order to create a common vision for the future of Chinatown. These goals include: creating a cultural and commercial hub in Chinatown, linking Chinatown, to Lower Manhattan, and assuring the affordability and authenticity of the community. The eight initiatives are:

- Establishing a marketplace environment;
- Establishing a cultural district;
- Establishing an office center;
- Increase waterfront parks, promenades, attractions, and linkages;
- Stronger pedestrian, transit, business and educational linkages to Lower Manhattan;
- Mixed-income housing;
- Parks and amenities; and
- Attending to basics of safety, services, and sanitation.

DATA COLLECTED AND COMMUNITY INVOLVEMENT

Creating strategies to further the goals and objectives for this study involved extensive public outreach. This public outreach process reached out to over 3,000 residents and stakeholders and included over 100 interviews with area leaders. In addition to public outreach, census data was collected for the area.

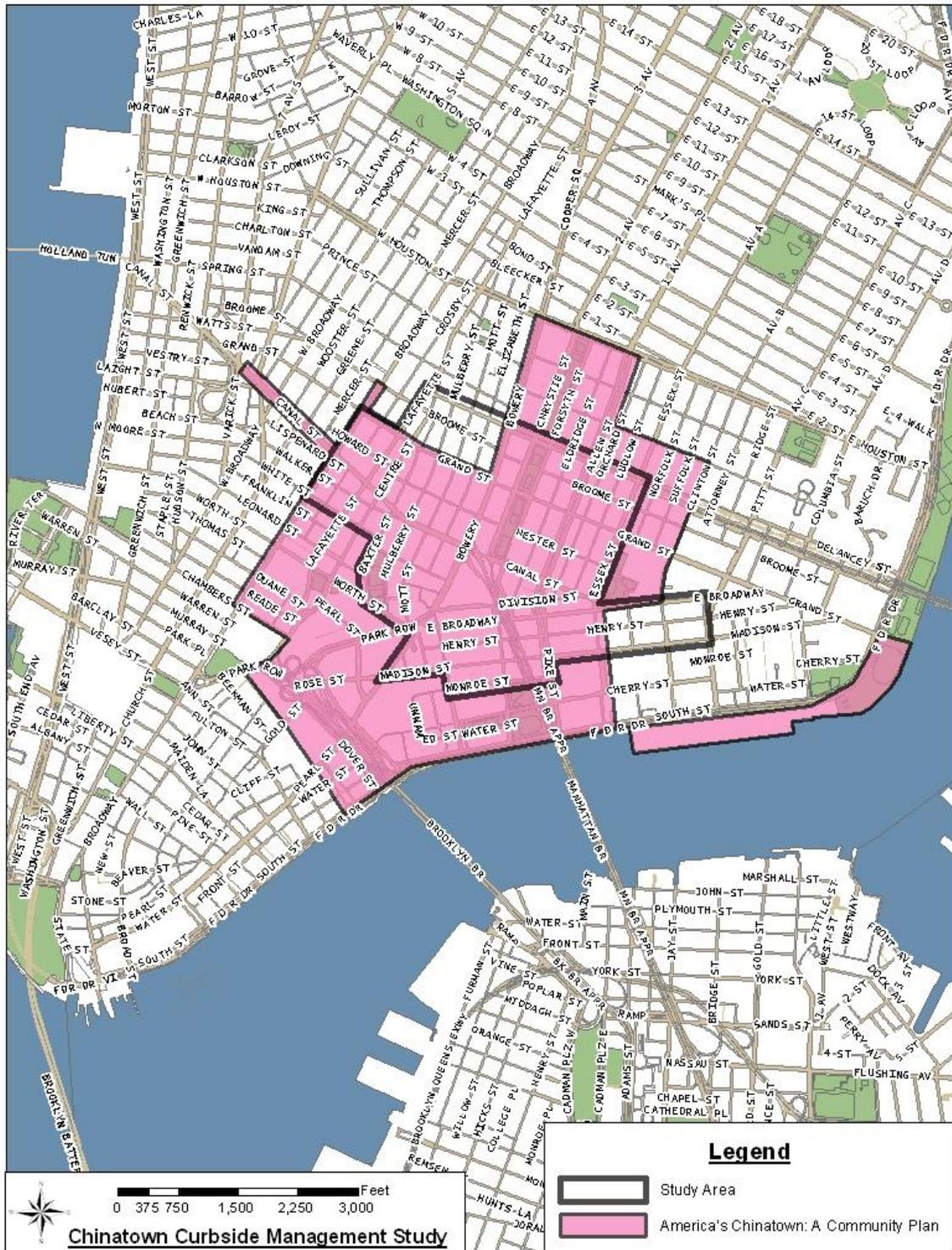
RESULTS, RECOMMENDATIONS, AND NEXT STEPS

This study contains a wide range of strategies and recommended improvements. The implementation of these strategies and recommended improvements would be based on efforts from several groups. Specifically, three levels of coordination are envisioned (community level, governmental level, and the American Chinatown Local Development Corporation). The American Chinatown Local Development Corporation would draw on both public and private sectors and ensure the interests of the stakeholders. Establishing two districts within Chinatown is also recommended: a Historic Chinatown, which would emphasize urban design and a Business Improvement District, which would address sanitation issues to improve the quality of life and the ability for the district to attract visitors.

APPLICABILITY TO CHINATOWN CURBSIDE MANAGEMENT STUDY

This study outlines a significant number of improvements, primarily addressing quality of life issues. To manage and prioritize the implementation of these improvements, a Business and Cultural Improvement District is recommended. This district could potentially be integrated into the CCMS to help implement community maintenance programs or implement a shuttle to provide better access to Chinatown, as described in the Improvements to Lower Manhattan Connectivity Technical Memorandum.

Figure 6: America's Chinatown, A Community Plan Study Area



7 CHINATOWN ACCESS AND CIRCULATION STUDY (2004)

AGENCY, PREPARER, AND DATE

Lower Manhattan Development Corporation
Parsons Brinckerhoff Quade & Douglas, Inc.
December 2004

STUDY AREA

The study area includes Centre Street to the west, Delancy Street / Williamsburg Bridge to the north, East River to the east, and Brooklyn Bridge to the south.

OVERLAP WITH CCMS STUDY AREA

The study area closely aligns with the CCMS study area, as shown in Figure 7.

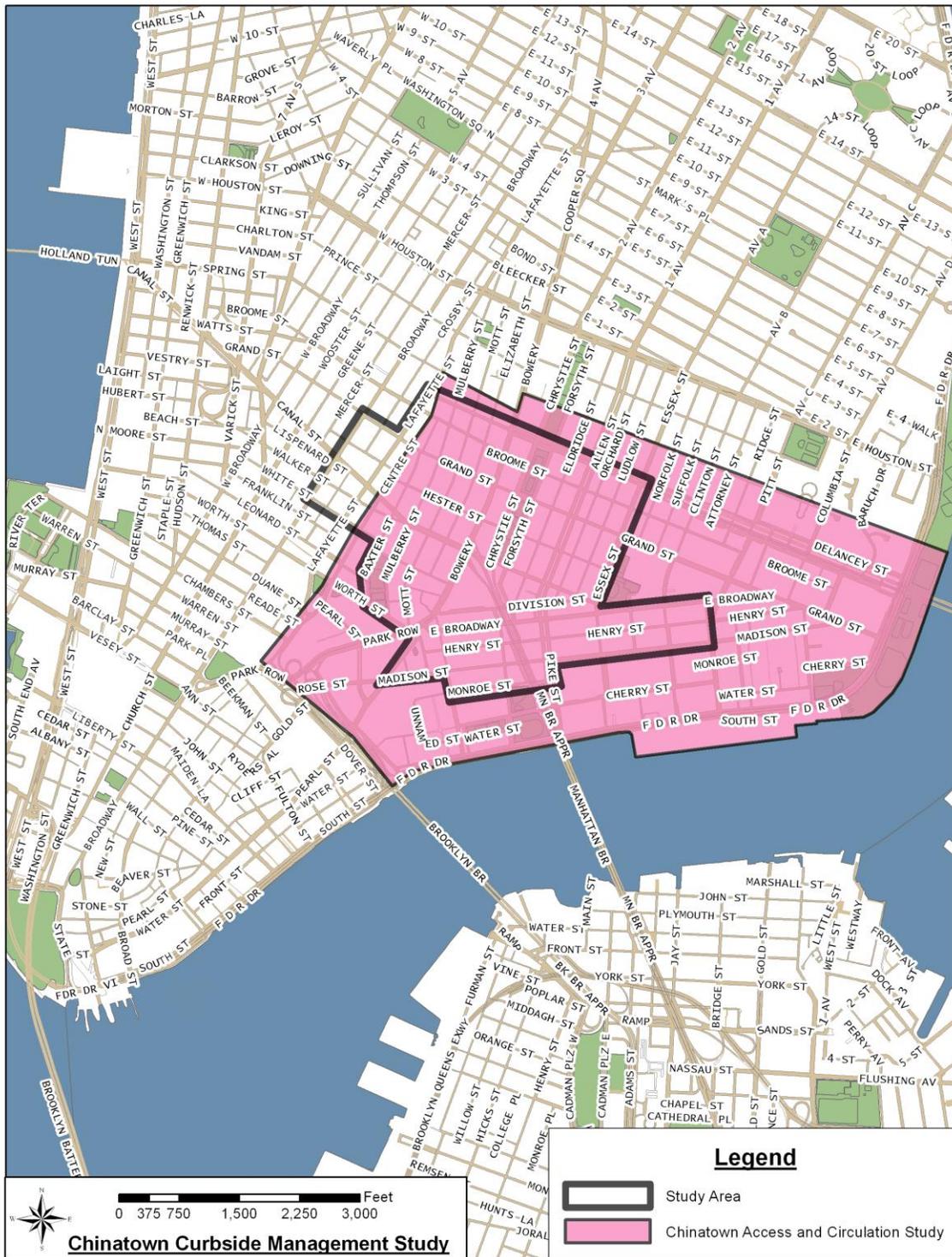
PURPOSE

This report presents a set of recommendations to improve issues within Chinatown. This improved access addresses both the ability to enter or pass through and the ability to move within Chinatown. Traffic volumes, turning movements, and pedestrian counts were collected at ten locations and ten intersections during October 2003. These data, combined with 2000 Census Data, demographics, Journey to Work, and Income data are used to develop seven improvement packages.

RESULTS, RECOMMENDATIONS, AND NEXT STEPS

Seven recommendations were developed to improve access and circulation in the study area. These improvements are recommended for additional detailed study. Addressing street closures due to the security concerns after 9/11 is the focus of the first improvement. Improvements to Park Row involved the pedestrianization of Park Row, while keeping open the possibility of reopening Park Row to two lanes of traffic (one each direction) with improved security features around sensitive areas. In addition, various streetscape enhancements are recommended to improve the pedestrian environment. This study also recommends a specific intersection reconfiguration for Chatham Square to facilitate pedestrian and vehicular movements around this area. Several transit improvements are recommended including a Forsyth Street Bus Plaza for tour and intercity buses, consolidating the commuter van stops, and the addition of a cross-town bus route. Several parking improvements are also recommended with the understanding that additional study would be conducted to identify parking needs in greater detail.

Figure 7: Chinatown Access and Circulation Study Area



DATA COLLECTED AND COMMUNITY INVOLVEMENT

APPLICABILITY TO CHINATOWN CURBSIDE MANAGEMENT STUDY

This study gives a brief overview of the existing conditions of parking and generalizes on-street parking regulations by subarea within the study area. In addition, off-street parking facilities are summarized in a table listing the location and capacity. The total capacity in the study area is estimated at around 4,100 cars.

This study suggests several parking improvements for the study area for further analysis. Feasibility and capacity of an underground garage under “Collect Pond Park” should be determined. This new garage should be used to consolidate the court and detention facility officers parking. NYPD parking should also be consolidated into the restored municipal parking garage at One Police Plaza. In addition, munimeters were recommended to replace the existing parking meters.

In addition to documenting the on- and off-street parking, the study addresses commuter van and intercity coach loading areas and layover locations. Detailed tables with bus companies, times and boarding locations are available in the report’s appendix. This information could potentially be used to understand curbside management near bus loading, unloading, and layover locations, as well as develop short-term recommendations for the twenty CCMS blockfaces.

8 SAFE ROUTES TO SCHOOL STUDY / IMPLEMENTATION (2006)

AGENCY, PREPARER, AND DATE

New York City Department of Transportation

The RBA Group / Urbitran

September / October 2006

STUDY AREA

The study includes various schools within the Chinatown neighborhood:

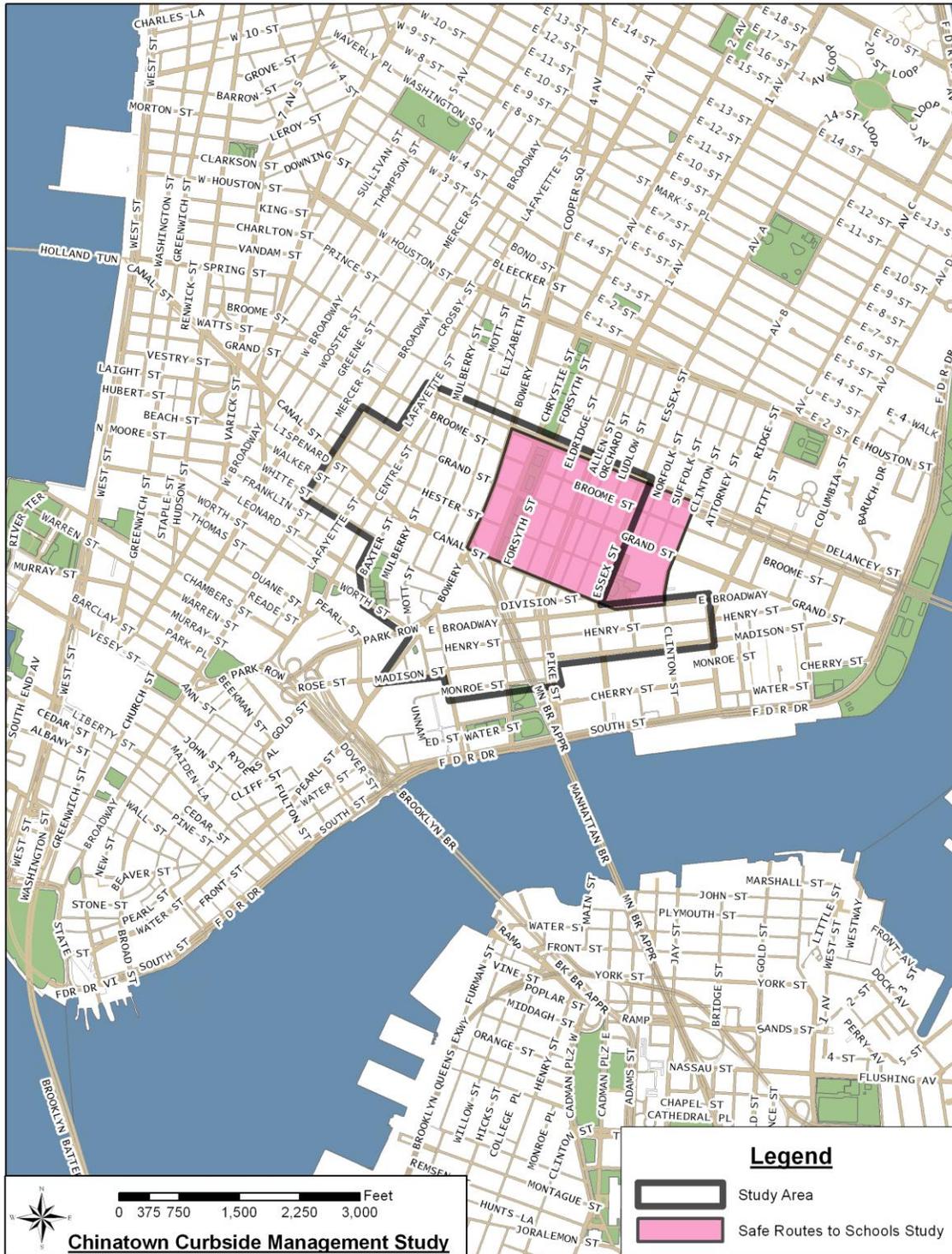
- Mesivtha Tifereth Jerusalem School – between Pike Street and Rutgers/Essex Streets
- I.S. 131 – one block northwest of the Manhattan Bridge terminus
- P.S. 42 – the north side of the block between Orchard Street to the west and Ludlow Street to the east
- P.S. 1 – the city block bounded by Henry Street, Oliver Street, Madison Street, and Catherine Street
- Yuny Wing School – between Market Street and the Bowery

OVERLAP WITH CCMS STUDY AREA

The schools listed above are located within the CCMS study area, as shown in Figure 8.

TASK 1
LITERATURE REVIEW REPORT

Figure 8: Safe Routes to School Study / Implementation Study Area



PURPOSE

The New York City Department of Transportation (NYCDOT) has developed school safety maps for 1,471 schools throughout the City. Schools currently in the program are primarily elementary and intermediate schools with an enrollment of at least 250 students. The safety plans include the designation of official school crosswalks identified by prominent warning signs and roadway markings. The NYCDOT designates curbside locations for school bus loading and unloading and other parking controls to improve conditions for the students. In addition, nearly 600 speed reducers (humps) have been installed in the immediate vicinity of the schools.

DATA COLLECTED AND COMMUNITY INVOLVEMENT

Accident data in the vicinity of all program schools was reviewed in order to rank the schools in terms of pedestrian safety. The 135 'priority' schools were identified Citywide. Traffic and pedestrian inventory data, signal timing, and traffic counts were also collected. In addition, the study team met with representatives from each school to discuss identifiable problems that student pedestrians encountered on a regular basis.

The implementation of several of the recommendations for the schools has either been constructed, is in progress, or is scheduled for a future date.

RESULTS, RECOMMENDATIONS, AND NEXT STEPS

Countermeasures (short-term and long-term) were identified for each school. For example, short-term measures at P.S. 1, Alfred E. Smith School included the addition of no standing zones, administration of a student pedestrian safety education program, placement of stop bars ten feet before school crosswalks, and improved street lighting conditions. Long-term measures included curb extensions at various intersections and the conversion of a portion of Henry Street to one way traffic.

Crash data in the vicinity of all program schools were reviewed. As a result, schools were ranked in terms of pedestrian safety and 135 'priority' schools were identified Citywide. At each of these priority schools, safety improvements are being recommended. In addition, 32 of these schools would receive further investigation for the design of physical improvements.

APPLICABILITY TO CHINATOWN CURBSIDE MANAGEMENT STUDY

The short-term and long-term countermeasures should be reviewed and included as existing conditions or blockface improvements, as applicable. Specifically, improvements related to parking supply and pedestrian safety and circulation. For example, Mesivtha Tiferth, it was recommended that a No Standing zone be installed on East Broadway to provide a place for school buses to load and unload students at the curb. In addition, curb extensions (neckdowns or bulbouts) were recommended at the northwest and southwest corners of the intersection of East Broadway and Rutgers Street to shorten the crossing distance for pedestrians, and to reduce speeds of vehicles approach and turning at these heavily utilized school crosswalks.

Similarly, at I.S. 131, it was recommended that the No Parking zone along Hester and Eldridge Streets be upgraded to a No Standing zone and curb extensions were recommended at the corners of the intersections of Hester and Eldridge Street, Canal and Eldridge Streets, Canal and Forsynth Streets, and Hester and Christie Streets.

TASK 1

LITERATURE REVIEW REPORT

The recommendations for P.S. 42 include the installation of a No Standing zone on Hester Street and curb extensions at the corners of the intersections of Hester and Orchard Streets, Hester and Ludlow Streets, Allen and Grand Streets, and Allen and Hester Streets.

The recommendations at P.S. 1 include the installation of No Standing zones along Henry and Oliver Streets and curb extensions at the corners of the intersections of Madison and Oliver Streets, Madison and Catherine Streets, and Henry and Catherine Streets. Recommendations also included converting Henry Street between Catherine and Oliver Street to a one-way eastbound street.

The recommendations for P.S. 124 (Yuny Wing School) include the installation of a No Standing zone on Division Street and curb extensions were at the corners of the intersections of Market and Division Streets, Forsyth, Eldridge, and Division Streets, East Broadway and Catherine Street, and East Broadway and Market Street.

PROJECT UPDATE

- Mesivtha Tifereth Jerusalem School – in progress
- I.S. 131 – in progress
- P.S. 42 – in progress
- P.S. 1 – complete
- Yuny Wing School – complete

9 ONE POLICE PLAZA SECURITY PLAN EIS (2007)

AGENCY, PREPARER, AND DATE

New York City Police Department

August 2007

STUDY AREA

The study area includes Kenmare and Broome Streets to the north, Green Street and Church Street to the west, John Street to the south, and Pearl Street, Madison Street, Pike Street, and Allen Street to the east.

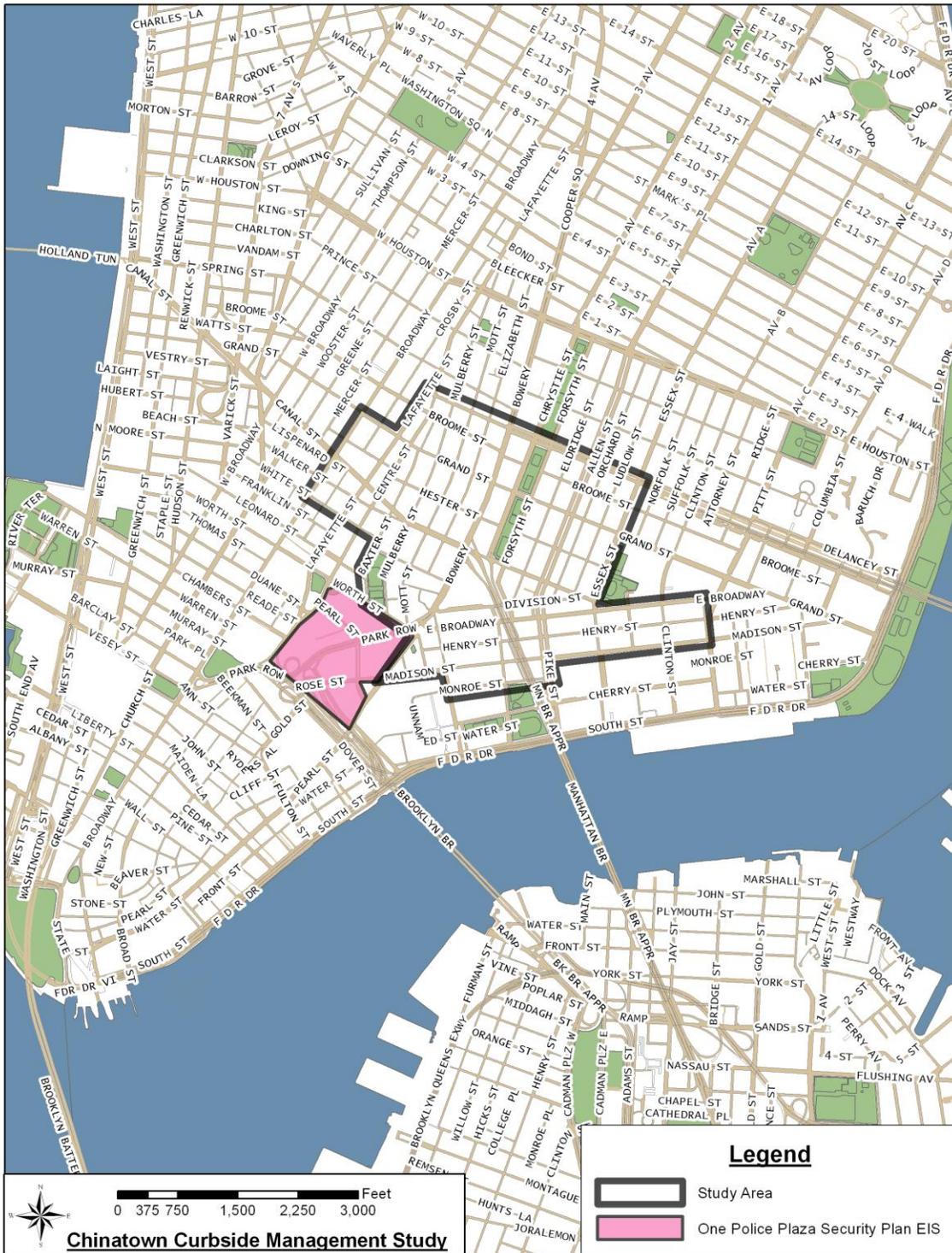
OVERLAP WITH CCMS STUDY AREA

The study area borders the southern portion of the CCMS study area, as shown in Figure 9.

PURPOSE

The New York City Police Department (NYPD) headquarters at One Police Plaza has been considered a sensitive location at risk of attack and requiring implementation of certain security measures following the events of September 11, 2001. In order to accomplish this, the NYPD determined that there was a need for heightened security including the establishment of a “secure zone” around its headquarters.

Figure 9: One Police Plaza Security Plan EIS Study Area



TASK 1
LITERATURE REVIEW REPORT

In the wake of the September 11, 2001 terrorist attacks, NYPD's Counter Terrorism Bureau conducted security assessments of numerous potential terrorist targets within New York City, including government and law enforcement facilities. Experience and research demonstrate terrorists avoid "hardened" targets, which are targets that have been reinforced with barriers and other deterrents that make the target less vulnerable and accessible to attack. In assessing the security of One Police Plaza, the Counter Terrorism Bureau concluded that the "secure zone" created around the building immediately following the terrorist attacks should be maintained to prevent the possibility of a vehicle bomb attack on NYPD Headquarters.

A security plan was implemented resulting in restricted use streets and the installation of attended security checkpoint booths, planters, bollards, and hydraulically-operated delta barriers to restrict the access of unauthorized vehicles from the roadways situated adjacent to the civic facilities located near One Police Plaza, including NYPD Headquarters, the New York State Supreme Court, and the United States Courthouse. All but two sets of barriers were installed by the NYPD. Security barriers located at Park Row and Foley Square and at Pearl Street on the west side of Park Row, were installed by the United States Marshals Service ("USMS") and were not part of the NYPD's action.

The street closures resulted in restricted access for commercial and passenger vehicles on streets adjacent to NYPD headquarters and other nearby civic buildings. Authorized NYPD and government personnel and emergency vehicles are permitted through the checkpoints after displaying appropriate identification. Residents of Chatham Green seeking vehicular access to the Chatham Green parking lot along Park Row are permitted through the checkpoint at Park Row at Worth Street after displaying valid identification. However, these vehicles are not permitted into the security zone through any other checkpoint. Commercial vehicles, such as delivery trucks, are only permitted through the checkpoint at Park Row and Worth Street after displaying valid identification and after passing through the barricade must pull into a truck inspection staging area where they are inspected by USMS officers who utilize, among other security measures, bomb sniffing dogs.

With the exception of areas immediately adjacent to the NYPD headquarters at One Police Plaza, pedestrian access within the security perimeter is not restricted. Iron fencing and barriers are located around the perimeter of One Police Plaza to restrict pedestrian access. In addition, the stairway leading from Police Plaza to Madison Street is closed to pedestrians.

DATA COLLECTED AND COMMUNITY INVOLVEMENT

Various sources were used to compile a 2000 base traffic network. The 1993 Foley Square FEIS, 2004 Chinatown Access and Circulation Study, 2004 World Trade Center Memorial and Redevelopment Plan EIS, 2000 48-52 Franklin Street EAS, 2004 One Police Plaza Security Plan EAS, the 2000 Woolworth Building Parking Garage EAS, and additional source material provided by NYCDOT served as sources for the construction of a 2000 base traffic network for the study area.

Parking information was assembled from various sources including the 1993 Foley Square Final Environmental Impact Statement (FEIS), the 2004 World Trade Center Memorial and Redevelopment Plan Generic Impact Statement (GEIS), the 2001 Public Safety Answer Center Environmental Assessment Statement (EAS), and the 2000 Department of City Planning's Parking Guide.

In terms of public involvement, the One Police Plaza Security Plan EIS followed the guidelines defined in the *City Environmental Quality Review (CEQR) Technical Manual*. This includes a public scoping process to identify relevant issues early so that the EIS focuses on potentially significant

adverse impacts. In addition, a public hearing for public comment was held after the Draft Environmental Impact Statement (DEIS) was completed and filed.

RESULTS, RECOMMENDATIONS, AND NEXT STEPS

The results of the analyses show that diverted traffic has created significant traffic congestion in the area. Mitigation measures were developed to ameliorate the identified traffic impacts.

The competition for both off-street and on-street parking remains very competitive and the availability of curbside parking for shoppers and others is still very limited in the study area as a result of the With-Action condition. As the security plan neither creates demand for public parking nor eliminates any off-street public parking supply, it can be concluded that these conditions did not result from the With-Action condition. Consequently, no significant adverse impacts on parking have occurred as a result of the implementation of the security plan.

APPLICABILITY TO CHINATOWN CURBSIDE MANAGEMENT STUDY

The existing parking conditions could be incorporated as part of the existing conditions of the CCMS, as necessary. Also, the results of the future parking conditions should be incorporated to understand future parking demand.

10 LOWER MANHATTAN STREET MANAGEMENT – PLACARD PARKING (2008)

AGENCY, PREPARER, AND DATE

New York City Department of Transportation in conjunction with the New York City Economic Development Corporation

Arup

January 2008

STUDY AREA

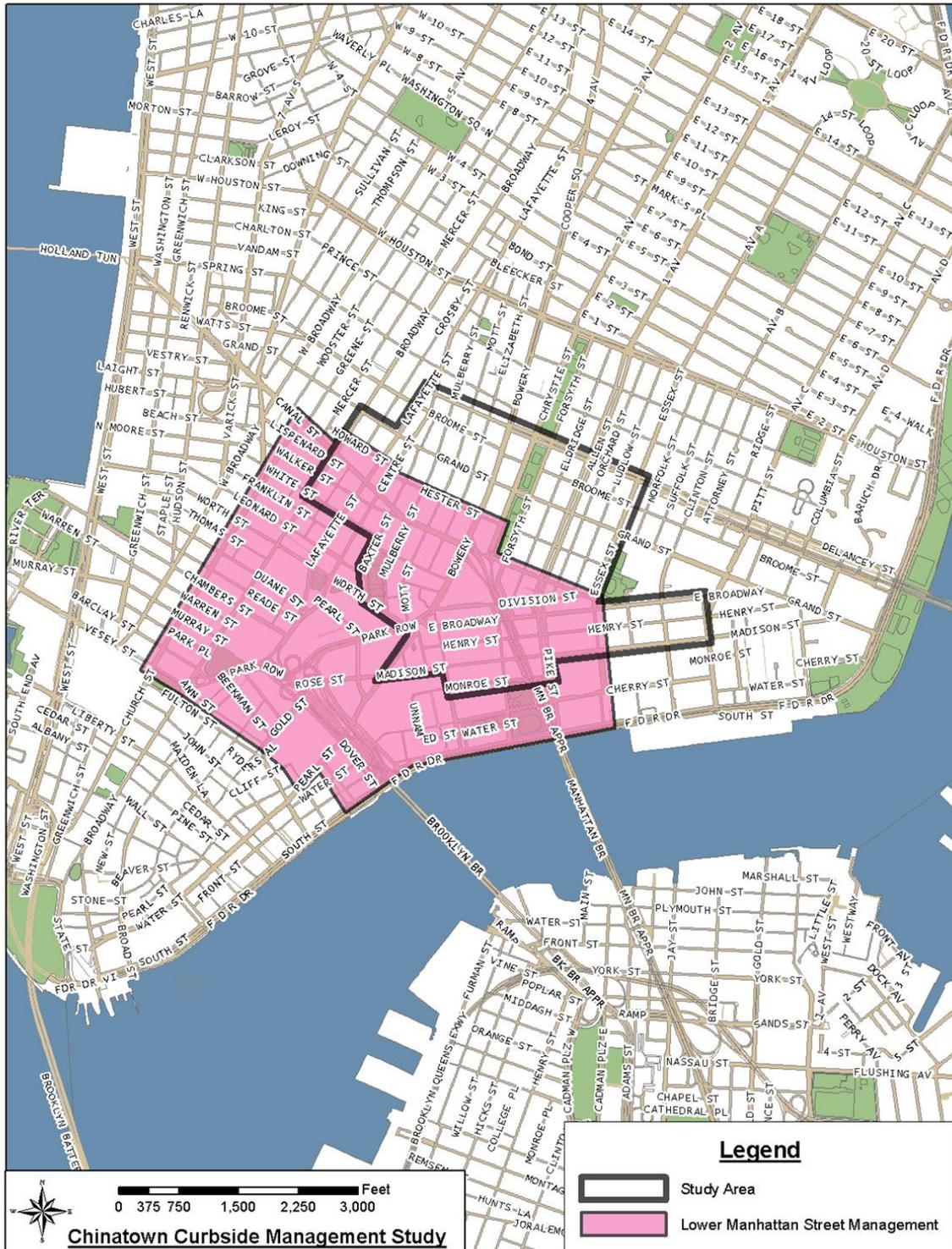
The study area includes all streets south of and including Canal and Rutgers Streets from river to river and slightly north to include Howard and Hester Streets. The study area was divided into five sub-areas:

- Chinatown/Civic Center;
- Financial District;
- Greenwich South;
- Battery Park City; and
- Tribeca.

OVERLAP WITH CCMS STUDY AREA

The Lower Manhattan Street Management study area encompasses approximately half of the CCMS study area. Specifically the Chinatown/Civic Center sub-area closely aligns with the CCMS study area, as shown in Figure 10.

Figure 10: Lower Manhattan Street Management – Placard Parking Study Area



PURPOSE

This study surveyed and quantitatively analyzed the use and misuse of parking, particularly placard parking in Lower Manhattan south of Canal Street. Report findings enable the NYCDOT to assess the impact of these patterns on all users of the street network. The observations and quantitative results may be used by the NYCDOT for the purpose of formulating a broad spectrum of policies with respect to the management of parking in Lower Manhattan.

A secondary objective of the study is to use the wealth of data collected to support policy decisions to address future planning for the area. By observing how various user groups appropriate the parking supply, opportunities to address the mismatch between supply and demand can be crafted to better serve the community and its various interests.

DATA COLLECTED AND COMMUNITY INVOLVEMENT

The study collected data for all parked vehicles within the study area. The following data was collected for every blockface of the study area at hourly intervals throughout the day (14 hours per day)

- Parking space;
- License plate;
- Vehicle type; and
- Permit type (if applicable)

To capture information about the overnight use of the curb space by residents and other users, as well as to increase the statistical validity of findings, data was collected successively over two days for each route. A total of 11 sets of two-day data gathering were undertaken for the Lower Manhattan study area.

RESULTS, RECOMMENDATIONS, AND NEXT STEPS

Due to the saturated parking conditions in Lower Manhattan during a typical midday period, available legal spaces are unavailable for most drivers. As a result, drivers park wherever they can find an available space. Vehicles with legal placards may park in areas signed for other users. For example, a Law Enforcement (LE) or Agency Business (AB) permit allows a driver to park in spaces signed for commercial vehicles and the general public, as well as No Parking areas. Due to the prevalence of placard parking, commercial vehicle loading zones and general or metered spaces tend to fill up. With the general or metered spaces occupied; non-placard permit drivers are forced to park in No Standing spaces or dangerous (illegal) spaces such as crosswalks, fire hydrants, bus stops, or sidewalks. In addition, with the commercial vehicle loading zones filled, commercial vehicles are forced to double-park to make their deliveries. Some commercial drivers, like the general public, risk parking in illegal areas.

Of the four main parking groups (LE and AB placard parking, commercial parking, and private parking), public peak hour demand is the largest at 36 percent, which reflects a strong demand for parking in the area. LE permit holders occupy an unusually large share of the demand (25 percent), which dominates the area's parking supply. Fake permits are a noteworthy phenomenon, constituting 9 percent of all permits.

TASK 1
LITERATURE REVIEW REPORT

Meter feeding is prevalent, especially for private vehicles, but not necessarily for the entire day.. It is unknown to what degree meter feeding is enforced in the area. The historical technique is to chalk the tire and come back an hour later. A more modern version could be to “swipe” all the registrations on a block of meters into the handheld parking device currently in use. Parking enforcers could come back an hour later, swipe them again, and ticket those with a match. It is not known if either of these practices occurs in the study area.

Another prevailing parking issue occurs when AB permits exceed their 3-hour allowance. The general free-for-all and often illegal parking observed, suggests a pervasive lack of enforcement, particularly for placard users vehicles.

APPLICABILITY TO CHINATOWN CURBSIDE MANAGEMENT STUDY

The collected data should be analyzed in Task 3.1 to assist in identifying key topics and issues.

PROJECT UPDATE

This quantitative assessment of placard parking in Lower Manhattan made the case to the Mayor’s Office for the need to reassess the issuance of placards and to reduce the number issued. In 2008, Mayor Michael Bloomberg announced the goal of reducing the number of city-issued placards by 20 percent. The actual reduction of placards was 32 percent for 2008. In addition, placard production and distribution was consolidated under the NYPD and NYCDOT

11 SAFE STREETS FOR SENIORS, CHINATOWN, MANHATTAN (2008)

AGENCY, PREPARER, AND DATE

New York City Department of Transportation

RBA Group

September 2008

STUDY AREA

The study area includes both the Chinatown and Lower East Side neighborhoods. The Chinatown neighborhood is bound by Howard Street and Walker Streets to the north, Bowery and Catherine Street to the east, Worth Street to the south, and Centre and Lafayette Streets to the west. The Lower East Side neighborhood is bound by Delancey and Grand Streets to the north, Samuel Dickstein Plaza and Gouverneur Street to the east, Madison Street to the south, and Pike Street, Forsyth Street, and Bowery to the west.

OVERLAP WITH CCMS STUDY AREA

The study area contains a subset of the CCMS study area, as shown in Figure 11.

PURPOSE

The purpose of this study was to address senior pedestrian safety issues at twenty-five Senior Pedestrian Focus Areas (SPFAs) and to develop and implement mitigation measures to improve the safety of seniors and other pedestrians. The SPFAs were identified by DOT and include the top senior pedestrian crash (severe injury and fatality) areas within each of the five boroughs. Selection

criteria included the density of senior pedestrian crashes resulting in fatalities or severe injuries in a five-year period. Looking at variables like visibility, lighting, drivers' compliance with traffic and pedestrian signals and the width of the roadway, both Chinatown and the Lower East Side were selected as one of the 25 city neighborhoods with both a high density of senior citizens and a high number of pedestrian accidents or injuries.

DATA COLLECTED /COMMUNITY INVOLVEMENT

The crash history and existing traffic conditions and controls (roadway geometry, signal timing) at selected intersections and corridors within the Chinatown Senior Pedestrian Focus Area (SPFA) were collected. In addition traffic and pedestrian volumes were collected and the outreach was performed to gather community feedback and provide education on safety.

RESULTS, RECOMMENDATIONS, AND NEXT STEPS

Based on the data collection, community feedback, and analysis in the study area, senior pedestrian issues include:

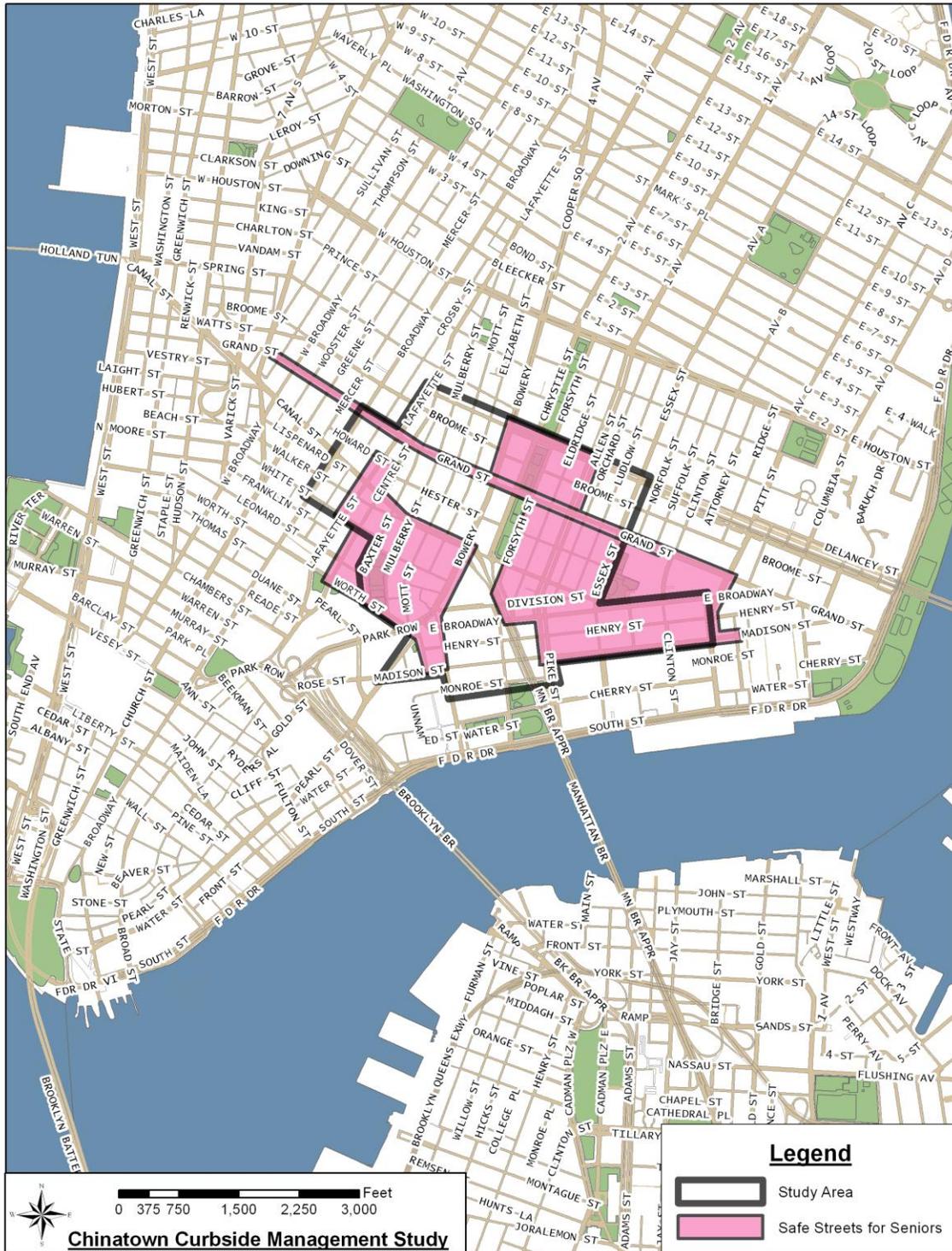
- Not enough time to cross the street;
- Broken or missing pedestrian ramps;
- Faded and hard-to-see markings;
- Turning vehicles failing to yield; and
- Poor drainage or ponding in crosswalks.

Various intersection improvements were proposed to make these intersections safer for pedestrians. A summary of these improvements for the Chinatown neighborhood include the following:

- Time signals for slower walking speed, including more crossing time at 14 of 22 signals in area;
- Install high visibility crosswalks and advanced stop bars on Bayard and Elizabeth Streets and Canal and Mulberry Streets;
- Refurbish markings;
- Install stop control;
- Install planted medians; and
- Install curb extension.

TASK 1
LITERATURE REVIEW REPORT

Figure 11: Safe Streets for Seniors, Chinatown, Manhattan Study Area



APPLICABILITY TO CHINATOWN CURBSIDE MANAGEMENT STUDY

Specifically, the installation of planted medians on the Bowery was recommended, along with the installation of a curb extension at Division and Bowery and the installation of a Stop Sign at Bayard and Elizabeth Streets.

Improvements for the Lower East Side improvement include the following:

- Retime all signalized intersections (43) for seniors at 3 ft/sec walking speed;
- Install a pedestrian refuge island in the south crosswalk at the intersection of Bowery and Delancey Street and install a curb extension at the southeast corner;
- Remove South crosswalk, install pedestrian fencing on southwest corner and east curb, provide left turn bay with turn signal, and install a pedestrian refuge island in the north crosswalk of the intersection of Chrystie and Broome Streets;
- Reconfigure Forsyth Street between Grand and Delancey Streets to include a parallel parking lane on east curb, one NB 13 foot moving lane, 4 foot channelized buffer, 9 foot floating parking lane, and 10 foot painted pedestrian space along west curb; and
- Close eastbound Division Street between Ludlow and Canal Street and add a pedestrian space using flexible bollards and a crosswalk across Division Street.

The recommendations should be reviewed and included as existing conditions or blockface improvements, as applicable. Specifically, the Bowery media and curb extensions at the corners of the intersection of Division and Bowery, the painted pedestrian space along Forsyth Street, and the pedestrian space on Division Street. These pedestrian safety improvements generally resulted in a loss of parking, which impacts the parking and curbside issues related to the CCMS.

12 CHINATOWN BUS STUDY (2009)

AGENCY, PREPARER, AND DATE

New York City Department of City Planning, Transportation Division October 2009

STUDY AREA

The study area includes FDR Drive to the south, Rutgers Street and Essex Street to the east, Grand Street to the north, Centre Street, Worth Street, and Catherine Street to the west.

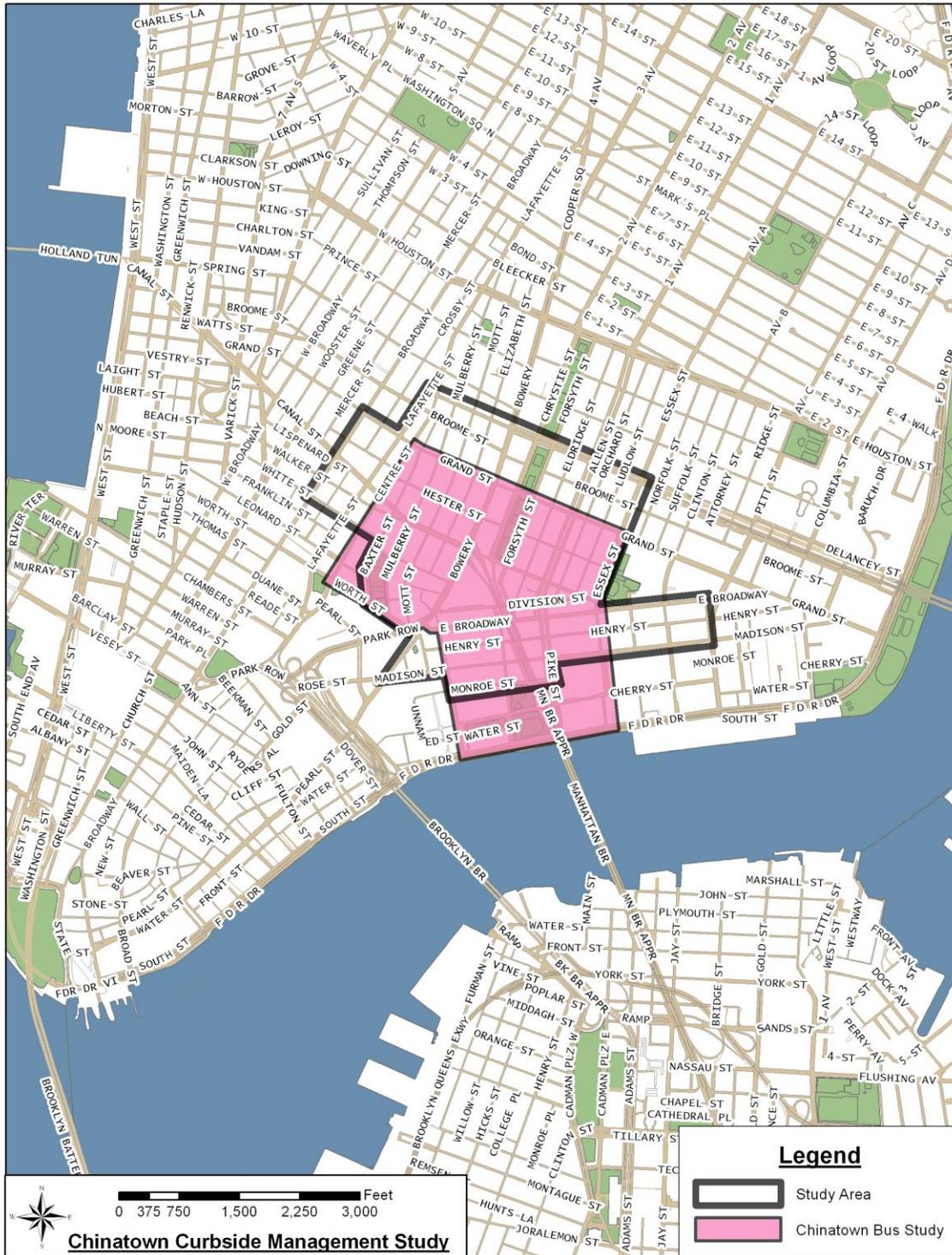
OVERLAP WITH CCMS STUDY AREA

The study area closely aligns with the CCMS study area, as shown in Figure 12.

PURPOSE

The purpose of this study was to document and analyze existing interstate bus operations within the study area; and provide recommendations to improve bus operations by analyzing case studies both in New York City and outside New York (Boston, the District of Columbia, and Philadelphia) to provide an understanding of the distinct issues in each city.

Figure 12: Chinatown Bus Study Area



DATA COLLECTED AND COMMUNITY INVOLVEMENT

This study has extensive information on the interstate bus departures, locations, and practices of bus companies within the study area. In addition, it looks at case studies in Boston, the District of Columbia, and Philadelphia to understand how other cities are dealing with the rise of Chinatown buses.

RESULTS, RECOMMENDATIONS, AND NEXT STEPS

Based on field studies, posted schedules, and interviews, the peak day and period for bus activity was identified as Sunday evening from 4:00 PM to 7:00 PM. Weekends were found to have the most bus activity with an estimated 291 daily buses arriving or departing on Sunday. However, no day of the week was observed to have less than 250 daily buses. Most buses were found to arrive or depart from 88 East Broadway. However, since this location has been subsequently closed by NYPD, bus activity on the curb frontage has been dispersed along Allen and Henry Streets. The following locations were also noted to have high loading and unloading curb frontage numbers:

- 13 Allen Street;
- 133 East Broadway;
- 139 Canal Street; and
- 69 Christie Street.

This study provides short-term and long-term improvements to interstate bus operations within Chinatown. In the short-term, the City should implement permitting for curb space similar to what has recently been implemented in Washington DC. Although this formal permitting process will need state legislature approval, it could provide more organized and safer bus operations in Chinatown.

In the long term, it is essential that a bus terminal is provided within the Chinatown area taking into account any potential traffic impacts. Currently, no sites within Chinatown have been found to be feasible for a bus terminal. Three sites were identified with potential but were eliminated from consideration for various reasons. Forsyth Street was eliminated from consideration since the FDNY requested that this street be kept clear in case of an emergency on the Manhattan Bridge. Pike Street was eliminated from consideration after concerns of exhaust entering nearby Colman Park. The Seward Park Urban Renewal Area was identified as being too far from Chinatown's core. The Port Authority Bus Terminal is not an option since it currently operates over-capacity and is geographically distant to Chinatown.

In terms of next steps, this study recommends a thorough inventory of curb spaces be performed. With this inventory, the NYCDOT could determine what space may be allocated to interstate buses and institute a permitting process. Proper enforcement by the NYPD is also essential to the success of a permitting program. The NYPD cannot negotiate individual agreements with bus operators. Instead, decisions over proper locations for buses must be determined in advance and in collaboration with the NYPD.

APPLICABILITY TO CHINATOWN CURBSIDE MANAGEMENT STUDY

Detailed bus operation information could be used to understand current bus activity in Chinatown. Although specific loading and unloading data would vary, the data from this report could be used to

TASK 1
LITERATURE REVIEW REPORT

create a baseline. Data was also collected detailing the parking regulations within the study area along each blockface.

13 EAST RIVER WATERFRONT ACCESS ENVIRONMENTAL ASSESSMENT STATEMENT (2009)

AGENCY, PREPARER, AND DATE

New York City Department of Parks and Recreation
Lower Manhattan Development Corporation (LMDC)
October 2009

STUDY AREA

The work at Catherine Slip would take place between Madison and South Streets, the work at Rutgers Slip would take place between Cherry and South Streets, and the work at Montgomery Slip would take place between Madison and South Streets.

The traffic study area consisted of six intersections along Catherine Street and Market Street near the South Street waterfront including four signalized (Catherine Street at Cherry Street, Catherine Street at South Street, Market Street at Cherry Street, and Market Street at South Street) and two unsignalized intersections (Catherine Street at Water Street and Market Street at Water Street).

OVERLAP WITH CCMS STUDY AREA

The study is adjacent to, but outside of the CCMS study area, as shown in Figure 13.

PURPOSE

The reconstruction of the Catherine, Rutgers, and Montgomery Slips in Lower Manhattan aims to provide pedestrian connections to the waterfront in order to enhance the quality of life in Lower Manhattan and contribute toward the restoration, stabilization, and enhancement of the community. The median improvements would provide recreational space and amenities, improve the overall visual character of the Slips, and serve as a gateway to the East River Esplanade from interior blocks. The specific goals of the median improvements are to provide:

- Open spaces for passive recreation;
- A strengthened connection and universal access to the East River waterfront for pedestrians and cyclists;
- Outdoor spaces that embrace the diversity of the city and unique characters of the adjacent neighborhoods;
- Uniquely lit spaces with opportunities for integration in graphics, signage, and interpretive materials;
- An expression of a broad landscape narrative reflecting natural history with upland planted areas of trees and grass gardens; and
- A reference to cultural, industrial, and maritime heritage with the thoughtful use of appropriate materials.

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DATA COLLECTED AND COMMUNITY INVOLVEMENT

To perform a traffic analyses, traffic counts were conducted in June 2008.

To perform a parking analyses, on-street parking utilization and capacities were surveyed on Catherine Street between Henry and South Streets, on Market Street between Cherry and South Streets, and on Water and Cherry Streets between Catherine and Market Streets.

Under the National Environmental Policy Act (NEPA), Federal agencies are required to encourage early and meaningful public participation in the decision-making process. Therefore, the LMDC and the New York City Department of Parks and Recreation held a number of meetings with the local community board, local preservation groups, and other local stakeholder groups. Also, the East River Waterfront Access Environmental Assessment was available for public review and comment.

RESULTS, RECOMMENDATIONS, AND NEXT STEPS

Probable impacts of the Proposed Action (the Build conditions) were compared to No Build conditions. Build conditions would include the elimination of vehicular traffic on northbound Catherine Street between Cherry and Water Streets, the narrowing of southbound Catherine Street at Cherry, Water and South Streets, narrowing westbound Cherry Street and eastbound Water Street at Catherine Street, and modifications to crosswalks. As a result of the closure of northbound Catherine Street between Cherry and Water Streets, localized traffic diversions would occur.

Traffic Conditions

During the weekday peak hours, the study intersections are projected to operate at overall LOS C or better under Build conditions. The individual traffic movements are also projected to operate at acceptable LOS C or better conditions with the exception of the eastbound shared left-turn/through movement on South Street at Catherine Street during the PM peak hour. This intersection is projected to operate at a marginally unacceptable LOS D under both No Build and Build conditions. The unsignalized intersections are projected to continue operating at LOS B or better conditions under Build conditions. Based on the comparison of No Build versus Build traffic levels of service, the reconstruction of the Catherine, Rutgers, and Montgomery Slips would not result in significant adverse traffic impacts.

Pedestrian Conditions

Pedestrian level of service analyses were conducted on the crosswalks and crossings observed at the intersections of northbound and southbound Catherine Street and Cherry and Water Streets. The intersection of southbound Catherine Street at Cherry Street is signalized and the other three pedestrian study locations are unsignalized.

The reconstruction of the Catherine, Rutgers, and Montgomery Slips would reduce the crossing distances across southbound Catherine Street from about 45 to 50 feet to about 30 feet at Cherry Street and from 45 feet to 22 feet at Water Street. At the intersection of northbound Catherine Street and Water Street, the south crosswalk crossing distance would decrease from 28 feet to 22 feet. The crossing distances across Cherry and Water Streets would be reduced from about 30 to 40 feet to about 24 to 27 feet at the intersections with Catherine Street.

Also, several of the crosswalk widths would be increased under the reconstruction of the Catherine, Rutgers, and Montgomery Slips. With these improvements, Build conditions are projected to operate at the same or better than No Build conditions with the exception of the north crosswalk on southbound Catherine Street at Cherry Street. This crosswalk is currently 15 feet wide and would be

reduced to 12 feet wide. This would decrease the level of service from LOS B to LOS C which is still acceptable for pedestrian conditions. Therefore, no significant adverse impacts would result from the reconstruction of the Catherine, Rutgers, and Montgomery Slips.

In terms of pedestrian safety, none of the intersections in the study area experienced five or more pedestrian accidents in a one-year period according to the three year accident data available from 2003 through 2005.

Parking Conditions

The reconstruction of the Catherine, Rutgers, and Montgomery Slips would add parallel parking on the east side of Catherine Street between Madison and Henry Streets. It would also eliminate parking on the west side of southbound Catherine Street between Madison and Cherry Streets and on the east side between Cherry and Water Street. Parking would be eliminated on both sides of southbound Catherine Street between Water and South Streets under the future Build conditions.

The reconstruction of the Catherine, Rutgers, and Montgomery Slips would not affect parking on northbound Catherine Street between South and Water Streets. Parking would be eliminated on both sides of northbound Catherine Street between Water and Cherry Streets due to its closure. The net decrease in parking from the reconstruction of the Catherine, Rutgers, and Montgomery Slips would be 25 spaces in each of the weekday peak hours.

Therefore, the overall utilization including illegal parking in the study area would be about 125 to 150 percent with the reconstruction of the Catherine, Rutgers, and Montgomery Slips compared to 105 to 130 percent without the reconstruction of the Catherine, Rutgers, and Montgomery Slips. According to the CEQR Technical Manual, the inability of the proposed action or the surrounding area to accommodate projected future parking demands would generally be considered a parking shortfall for proposed actions in Manhattan south of 61st Street. However, this is not deemed to be a significant impact because vehicles could potentially find parking further away.

Status

A finding of No Significant Impact and Negative Declaration was filed on October 6, 2009.

APPLICABILITY TO CHINATOWN CURBSIDE MANAGEMENT STUDY

The 2008 parking regulations, capacity, and occupancy could be incorporated as part of the existing conditions of the CCMS, and the results of the future parking conditions should be incorporated to understand future parking demand. For example, north of Cherry Street, the existing parallel parking on the eastern side of Catherine Street will be restriped and converted to diagonal parking. Also, the improvements at both the Rutgers and Montgomery Slips include the addition of a neck-down on the east and west sides of the slip to formalize the parking lane.

In addition, through the meetings with the local community board, local preservation groups, and other local stakeholder groups, the public outreach favored the provision of connectivity to the East River waterfront.

PROJECT UPDATE

All three slips projects are currently in construction by the Department of Parks and Recreation. The estimated time of completion is late 2011 or early 2012.

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LITERATURE REVIEW REPORT

14 CANAL AREA TRANSPORTATION STUDY TRACK II (2011)

AGENCY, PREPARER, AND DATE

New York Metropolitan Transportation Council (NYMTC)

AECOM / Parsons Brinckerhoff Joint Venture

Completed February 2011

STUDY AREA

The study area focuses on the Canal Street corridor bounded by Houston Street to the north, the East River to the east, Chambers Street to the south, and the Hudson River to the west.

OVERLAP WITH CCMS STUDY AREA

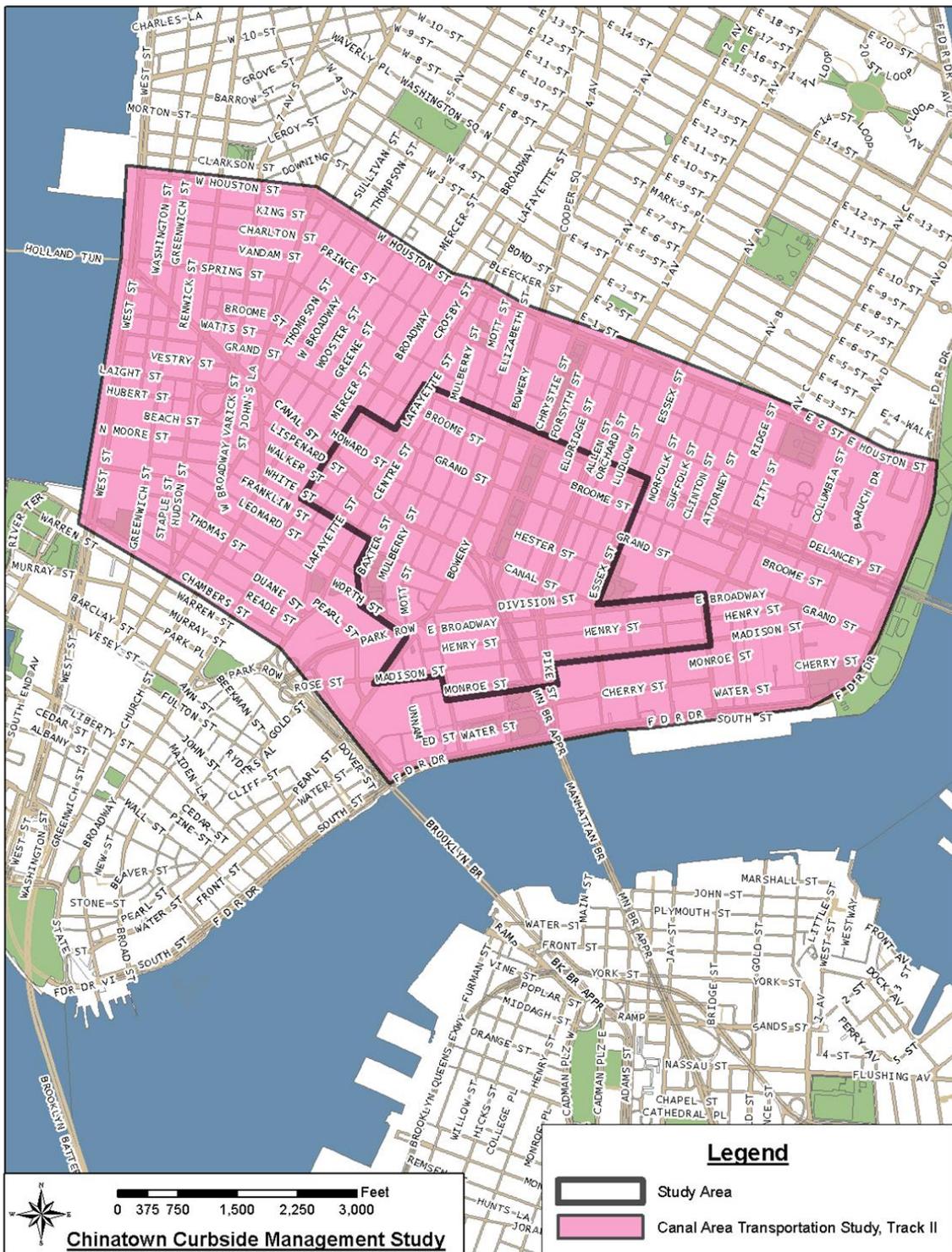
The CATS study area encompasses the entire CCMS study area, as shown in Figure 14.

PURPOSE

CATS Track II was sponsored by the New York Metropolitan Transportation Council (NYMTC), a regional council of governments comprising the metropolitan planning organization for New York City, Long Island, and the lower Hudson Valley, as a continuing effort to define solutions to transportation problems in the Canal Street area in lower Manhattan. The first phase (Track I) of CATS, which was initiated in 2002, identified and coordinated implementation of short-term, localized improvements. Track II was born out of Track I, which involved outreach to the community and the relevant agencies to identify significant short-term measures to improve safety, infrastructure, and mobility within the study area. Track II encompasses a more regional and multi-modal study of the transportation issues affecting the area to identify and develop medium- and long-term transportation investments and improvements.

CATS Track II, initiated in 2005, included examining existing conditions in the study area, holding public meetings within the community as well as with a Stakeholders Committee, and developing and utilizing a detailed planning and technical analysis process to identify and screen potential actions to improve traffic, pedestrian, and mobility conditions. Several measures were taken subsequent to Track I including repaving Canal Street with high visibility crosswalks; retiming traffic signals and repairing and cleaning streetlights along Canal Street; addressing signage issues at the Holland Tunnel and Manhattan Bridge; exploring improvements to traffic enforcement; defining the transportation elements of the new triangle park near Varick Street; and defining short-term improvements along Allen Street.

Figure 14: Canal Area Transportation Study Track II Study Area



TASK 1

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As observed and identified in previous studies (including CATS I), Canal Street is a major east-west arterial in Lower Manhattan that serves vehicular and non-motorized (pedestrian and bicycle) transportation modes. To improve traffic and pedestrian conditions within the study area, preliminary scenarios that have the potential to significantly divert traffic from the Canal Street corridor and provide greater opportunity and flexibility in identifying potential pedestrian, traffic operations, and safety improvements were identified.

The following four future improvement scenarios were selected for evaluation, using a screening process, based on their potential to reduce future traffic volumes in the study area, which was judged as critically important to the Guiding Principles defined for the study. The four improvement scenarios are:

- Implementing a High-Occupancy Vehicle (HOV) lane that would allow access for buses and vehicles with three or more passengers in the Holland Tunnel, while continuing the Tunnel's truck restrictions, which were enacted by the Port Authority of New York and New Jersey during the period of the CATS effort.
- Implementing HOV lanes on the Manhattan Bridge that would allow access for buses and vehicles with two or more passengers.
- Altering traffic regulations to create a one-way pair between Canal Street and Grand Street, with Canal Street converted to eastbound-only lanes between the Avenue of the Americas and the Bowery, and Grand Street to westbound-only lanes between Chrystie Street and Avenue of the Americas.
- Using variable message signage and other traffic management measures to notify drivers in Brooklyn destined for the Holland Tunnel and the west side of Manhattan of travel times, and encourage them to consider using the Brooklyn Battery Tunnel as an alternative to the Manhattan and Brooklyn Bridges, with a reciprocal arrangement in Manhattan.

These scenarios were quantitatively evaluated using NYMTC's regional, multi-modal travel demand model, the New York Best Practice Model (BUM), to simulate traffic conditions and impacts in the study area for the 2030 horizon year of the study. The Brooklyn/Manhattan traffic diversion scenario could not be quantitatively evaluated with the BPM, but was assessed qualitatively.

In addition to traffic scenario analysis, CATS Track II examined the travel and parking patterns of residents and visitors to the study area for various trip purposes. Parking was studied in order to provide a more accurate representation of the distribution of parking demand in the study area to guide initiatives related to parking supply.

Parking accumulation projections were developed for the commercial and residential development identified in the current New York City Department of City Planning (NYCDCP) Primary Land Use Tax Lot Output (PLUTO) database using census data and other standard trip generation references. Using these projections, parking demand was derived for a Baseline Land Use Forecast, which represents the NYMTC 2030 socioeconomic forecast with adjustments and is based on a review of current trends in land use patterns within the study area in coordination with NYMTC and the NYCDCP. Two additional future alternatives were considered: Alternative Land Use Scenario #1, which adds a total of approximately 4,200 dwelling units to the adjusted baseline forecast; and Alternative Land Use Scenario #2, which adds a total of approximately 4,800 dwelling units and 1,290,000 square feet of office space to the adjusted baseline forecast.

In addition to estimating parking demand, the CATS Track II developed shorter term parking management processes and strategies to increase the availability and better use of on-street and

off-street parking. As a first step, goals and objectives were identified to become the base to establish policies and criteria for a more effective, efficient, and comprehensive parking management program. Next, parking resources were prioritized by identifying priority target markets such as retail customers, commercial vehicles, residents, or employees. To create a better understanding of the local conditions, parking inventory and occupancy data were collected in May and June 2009. Parking strategies were then developed based on demand, then location, then time, and finally price and supply strategies.

DATA COLLECTED AND COMMUNITY INVOLVEMENT

Extensive data were collected from the study area as part of Track II. This data included traffic and pedestrian counts, travel time and delay information, aerial congestion mapping, an origin-destination survey, on- and off-street parking surveys, and accident data. Specifically, data were compiled and aggregated for each of the 28 census tracts in the CATS study area, as follows:

- Land use data from the PLUTO database were aggregated by office, retail, and residential land uses.
- Journey-to-work and reverse journey-to-work data (auto modal splits and vehicle occupancy rates for residential and commercial land uses, respectively) and vehicle ownership rates for residential uses by census tract were collected from the 2000 Census.
- 2009 Parking demand was projected on an hour-by-hour basis by land use utilizing patterns derived in the No. 7 Subway Extension-Hudson Yards Rezoning and Development Program FGEIS, which includes daily trip generation rates, 24-hour temporal distributions, in/out splits and parking accumulation for residential, office and retail land uses, adjusted as necessary for the difference between Saturday and Sunday patterns.
- Peak weekday, Saturday midday, and weekday overnight parking accumulation for each tract was totaled for the study area and calculated for each tract on a relative basis to the overall study area accumulation for these three time periods.
- Land use anticipated to be in place by the year 2030 within each census tract was utilized to derive peak weekday, Saturday midday, and weekday overnight parking demand for each alternative land use scenario.

In addition, two forms of surveys were conducted to gather travel characteristics (i.e. mode, origin, purpose, frequency, and chaining) and parking data:

- In-site surveys with questionnaires at 46 locations (stores, offices, community facilities, etc.) from December 9 through December 17, 2007.
- On-street intercept interviews with pedestrians at seven locations in SoHo, Chinatown/Little Italy, and the Lower East Side on two weekend days and two weekdays (December 9, 13, 15, and 16, 2007).

Approximately 1,000 surveys total were completed, of which about ninety percent were on-street intercept interviews.

To supplement data collection efforts, as with Track I, a community involvement program was conducted throughout Track II to gather and share information and build consensus on potential improvements. A series of public meetings and workshops were held in the area to give the community an opportunity to provide input to help produce a vision for Canal Street, including developing the study's Guiding Principles; establishing and confirming relevant concerns to be

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addressed; and identifying and reviewing potential improvement options. Additionally, members of a diverse Stakeholders Committee provided valuable insight into community issues and concerns from the perspective of their constituencies.

RESULTS, RECOMMENDATIONS, AND NEXT STEPS

The CATS Track II included various components as described in the Purpose and Data Collected and Public Involvement sections. A summary of the results, recommendations, and next steps of these project elements are described below.

SURVEY RESULTS

Based on the surveys conducted to gather travel characteristics and parking data, the following conclusions can be made:

Where do respondents travel from?

A large proportion of respondents in all surveyed neighborhoods were from Manhattan, Brooklyn, and Queens. The number of respondents from outside of New York City increased on the weekends.

How do respondents travel?

Subway was the most popular of all travel modes. Chinatown/Little Italy had more respondents driving in their personal vehicles than other neighborhoods within the study area.

Why do respondents travel?

Work was the more prominent reason for travel to the study area, during weekdays. Many respondents also came to the neighborhoods for shopping or recreation/entertaining/dining purposes, especially during weekends. Respondents coming to Chinatown/Little Italy on both weekdays and weekends had a tendency for combined trip purposes not involving work, school, or personal business.

How often do respondents travel?

More respondents came to the study area on a daily basis during weekdays, which coincides with work being the prominent trip purpose on those days. More visitors came to the study area during weekends.

How many places do respondents visit during one trip?

The number of locations respondents visited appears to be related to the land use of the neighborhood. A greater proportion of respondents visited five or more locations on weekends than on weekdays.

Current off-street and on-street parking usage

More respondents parked on-street on both weekdays and weekends. Fifteen percent more respondents parked off-street on weekends than on weekdays, corresponding with more non work/school/personal business purposes trips.

A significantly higher percentage of off-street parkers paid more than ten dollars, and a significantly higher percentage of on-street parkers paid less than five dollars.

On-street parkers spent longer time searching for a parking space than off-street parkers on both weekdays and weekends. Nearly fifty percent of on-street parkers searched for more than twenty minutes before finding a parking space on weekdays.

Potential parking usage

Approximately 25 percent of non-driver respondents expressed a willingness to switch to driving if more parking spaces were provided. Of these respondents, a majority were current subway riders. Pedestrians were the second largest mode group willing to switch.

Of all subway riders, 37 percent on weekdays and 35 percent on weekends indicated their willingness to switch to driving, and of all bus riders, 30 percent on weekdays and 38 percent on weekends were willing to switch to driving.

Of respondents willing to switch to driving, a higher percentage was willing to pay less than five dollars for parking on weekdays; however, on the weekends, a higher percentage was willing to pay more than twenty dollars.

PARKING DEMAND

Based on the CATS Track II parking demand estimation, during the weekday Midday period, parking is heavily concentrated in Census tracts 21, 29, 31, and 33. Of these, only tract 29 is within the CCMS study area. Tract 29 is bounded by Canal Street to the north, Bowery Street to the east, Division Street, Park Row, and Worth Street to the south, and Centre Street to the west. This increased demand is related to the concentration of office use in the area. The distribution of parking demand is more evenly spread among census tracts during the weekday overnight and Saturday midday periods, as residential land uses are the primary generators during these time periods and residential development is spread more evenly throughout the study. To accommodate for the differences in parking demand, short term improvements for the CCMS may incorporate different parking regulations along Baxter, Mulberry, Mott, Elizabeth, and Bayard Streets during the weekday Midday period.

Parking demand generated by each tract would remain similar to existing conditions under the 2030 NYMTC baseline forecast in most tracts with a more appreciable increase in demand as a result of the alternative land use scenarios.

PARKING MANAGEMENT

The parking strategies developed based on demand, location, time, and price and supply strategies include the following:

- Create a 90 percent curb parking utilization criteria as a trigger to implement parking management strategies;
- Continue to reduce impact of government parking placards on the adjacent community;
- Convert underutilized commercial on-street parking spaces into on-street customer spaces;
- Examine potential peripheral parking opportunities outside of the core study area;
- Improve wayfinding and signage to make it easier to travel between parking facilities and destinations in the Canal Street Area; and
- Use advanced parking reservation and Park Smart systems to better use parking supply.

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CATS Track II recommends that this Parking Management Plan be used by the NYCDOT in their ongoing parking management efforts. As such, these strategies will be considered when developing short term improvements for the twenty blockfaces in the CCMS.

IMPROVEMENT SCENARIOS

Based on the micro-simulation analysis of the four preliminary scenarios, implementation of an AM peak period HOV3+ lane in the Holland Tunnel would significantly change crossing traffic characteristics and volumes through the tunnel, and moderately change crossing volumes at other Hudson River crossings and on study area streets in the vicinity of the tunnel. Study findings also indicate that a significant change in AM peak period crossing traffic characteristics would occur on the Manhattan Bridge inbound to Manhattan under the Manhattan Bridge HOV 2+ Preliminary Scenario, but little change in volume would occur on the bridge and on study area streets. Study findings regarding the one-way pair comprising Canal Street eastbound and Grand Street westbound indicate that a significant redistribution of traffic on study area streets would occur, but little change in bridge and tunnel crossing volumes.

A variant of one of these scenarios - the Manhattan Bridge HOV scenario, was implemented by the NYCDOT subsequent to the evaluation and remains in place. In addition, based on outcomes of the modeling, the one-way pair scenario for Canal Street was selected for more detailed traffic analysis using a micro-simulation model relative to an adjusted two-way alternative. The scenario and its alternative were also evaluated against a No-Action scenario, which projected future conditions with no significant modifications to roadway or pedestrian facilities in the study area.

A qualitative assessment of the results of the detailed traffic analysis for the one-way pair scenario, adjusted two-way alternative, and No-Action scenario was conducted relative to the study guiding principles. Based upon this assessment, the adjusted two-way alternative, which incorporates left-turn restrictions, urban design, and parking management elements, was selected as the preferred alternative for further consideration in the Canal Street reconstruction project. This scenario would be in conjunction with the large truck restrictions enacted by the Port Authority in the Holland Tunnel, with the Manhattan Bridge HOV lane, and with the traffic management measures to encourage more optimal use of the available river crossings.

In summary, CATS Track II recommends the adjusted Canal Street two-way alternative be progressed for further consideration in the pending Canal Street reconstruction project. As part of this preferred alternative, it is recommended that large truck restrictions in the Holland Tunnel (enacted by the Port Authority of New York and New Jersey) be continued, in conjunction with the Manhattan Bridge HOV lane and additional traffic management measures to encourage more optimal use of the available water crossings. In addition, the Urban Design Framework Plan should be considered as planning for the reconstruction project is initiated. The preferred alternative also envisions the continuation of the interagency planning coordination that has taken place as part of CATS beyond the end of this extensive study effort to implement the preferred alternative and address the range of functions that Canal Street serves.

APPLICABILITY TO CHINATOWN CURBSIDE MANAGEMENT STUDY

In addition to the points related to the applicability to the CCMS made above in the Results, Recommendations, and Next Steps section, some of the collected data could be useful for the scope of the CCMS. As described in the Data Collected and Public Involvement section, data collected as part of CATS Track II documents existing on-street and off-street parking conditions. On-street parking utilization rates, including placard parking usage, will be utilized in the CCMS during the

selection of pilot blockfaces and the Placard Parking Reduction Technical Memorandum. In addition, off-street parking data collection, as a part of CATS Track II, gathered parking accumulation rates at several off-street parking facilities within the CCMS Study Area. These data will assist in documenting existing conditions for off-street parking facilities.

In addition, the results of the collected travel characteristics (mode, origin, purpose, frequency, and chaining) and willingness to shift to driving with increased availability of parking data could be incorporated as part of the existing conditions. When developing the recommended improvements for the CCMS blockfaces, the collected public input will be considered. Finally, due to the planned improvements along Canal Street, this street was eliminated from consideration in the selection of the sixty blockfaces.

PROJECT UPDATE

Thirteen actions identified in CATS Track II to improve traffic, pedestrian, and mobility conditions in the study area have been implemented or programmed for implementation. Thirty-four additional actions have been referred to implementing agencies for further consideration.

15 THE RECONSTRUCTION OF THE ALLEN AND PIKE STREET MALLS PROJECT EA (2010)

AGENCY, PREPARER, AND DATE

New York City Department of Parks and Recreation

Lower Manhattan Development Corporation

April 2010

STUDY AREA

The study area includes six existing sections of the median malls on Allen Street between Delancey and Hester Streets. The study area also included Pike Street between Madison and South Streets.

OVERLAP WITH CCMS STUDY AREA

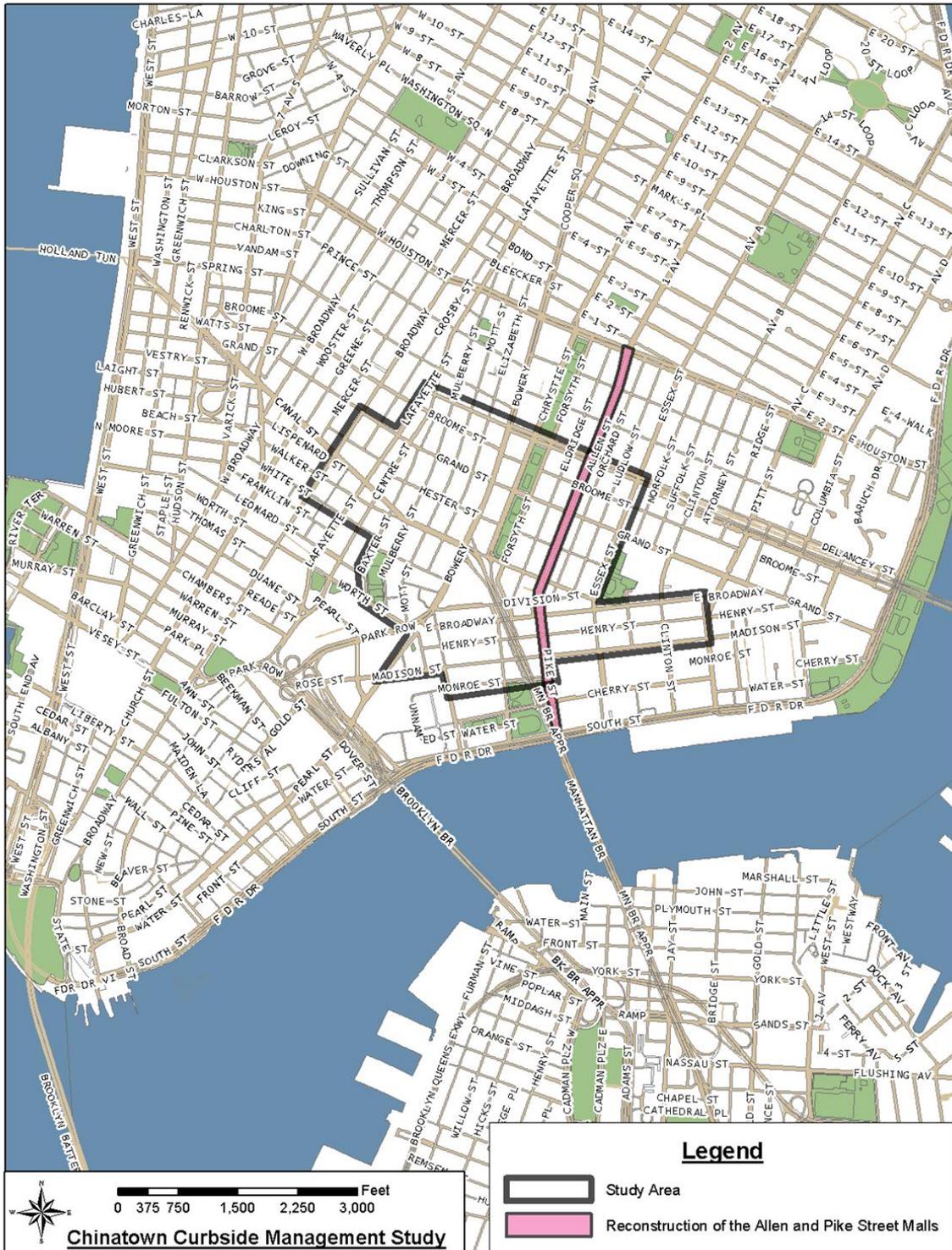
Allen and Pike Streets traverse the CCMS study area, as shown in Figure 15.

PURPOSE

The median sections are currently narrow and paved with some trees and benches. The improvements would involve reconstruction to provide a unique pedestrian park promenade serving as a linear community park linking the adjacent Lower East Side, Two Bridges, and Chinatown neighborhoods to the East River. The median improvements would provide public green space, recreational space, and amenities in an area that has a strong demand for open space south of Delancey Street. The design intends to bring a new sense of life and a heightened sense of place to the adjacent neighborhoods taking its aesthetic cues from their history and diversity and connection to the East River waterfront. The specific goals are:

- Creation of connections between the upland and East River waterfront neighborhoods;
- Creation of a series of green, social, and neighborhood spaces, doubling the width of the existing center plots on Allen and Pike Streets;

Figure 15: The Reconstruction of the Allen and Pike Street Malls Project Study Area



- Provision of new seating and flexible community gathering spaces;

- Creation and enhancement of separated corridors for pedestrians and bicyclists; and
- Increased site sustainability through removal of excess paving, increased planting areas, and introduction of continuous tree pits.

The reconstruction of the six median sections was scheduled to begin in the fall of 2010 and be completed by 2012.

DATA COLLECTED AND COMMUNITY INVOLVEMENT

Traffic data were collected in November 2009 including manual intersection turning movement counts, 24-hour Automatic Traffic Recorder (ATR) machine counts, physical inventory, signal timings, and level of service observations. Traffic counts were conducted during the weekday AM, midday and PM peak periods. The weekday AM, midday, and PM peak hours were selected to be 7:45-8:45 AM, 12:00-1:00 PM, and 4:15-5:15 PM, respectively.

In terms of public involvement, the Reconstruction of the Allen and Pike Street Malls Project Environmental Assessment was available for public review and comment.

RESULTS, RECOMMENDATIONS, AND NEXT STEPS

Overall, the median improvements would not result in any significant adverse impacts to traffic or parking or pedestrian/bicycle circulation.

Traffic Conditions

Removal of the pedestrian space would allow vehicular traffic to travel through and make left turns from the medians. As a result, the number of conflicts at the study intersections, i.e. conflicts between southbound left turns and northbound through vehicles, would increase and would potentially adversely affect intersection levels of service and make it less safe.

Removal of the pedestrian space between the medians would shift more pedestrians to the crosswalks across Pike and Allen Streets and the cross streets. As a result, the levels of service of eastbound left and right turns and northbound right turns, which would have to yield to the increased number of pedestrians in the crosswalks, would be potentially adversely affected at the study intersections under the alternative conditions.

APPLICABILITY TO CHINATOWN CURBSIDE MANAGEMENT STUDY

The median improvements should be included in considering the future conditions of the study area, identifying key topics and issues, and developing the short-term improvements for the twenty CCMS blockfaces.

PROJECT UPDATE

This project is currently under construction by the Department of Parks and Recreation with an estimated completion of Spring 2012.

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16 TRAFFIC, TRANSPORTATION AND SAFETY PRELIMINARY ACTION PLAN (2010)

AGENCY, PREPARER, AND DATE

Chinatown Working Group

June 2010

STUDY AREA

The study area includes the Canal Street Corridor.

OVERLAP WITH CCMS STUDY AREA

Canal Street traverses the CCMS study area, as shown in Figure 16.

PURPOSE

The Chinatown Working Group held a town hall meeting on June 8, 2010 to discuss traffic, transportation, and safety issue.

DATA COLLECTED AND COMMUNITY INVOLVEMENT

None

RESULTS, RECOMMENDATIONS, AND NEXT STEPS

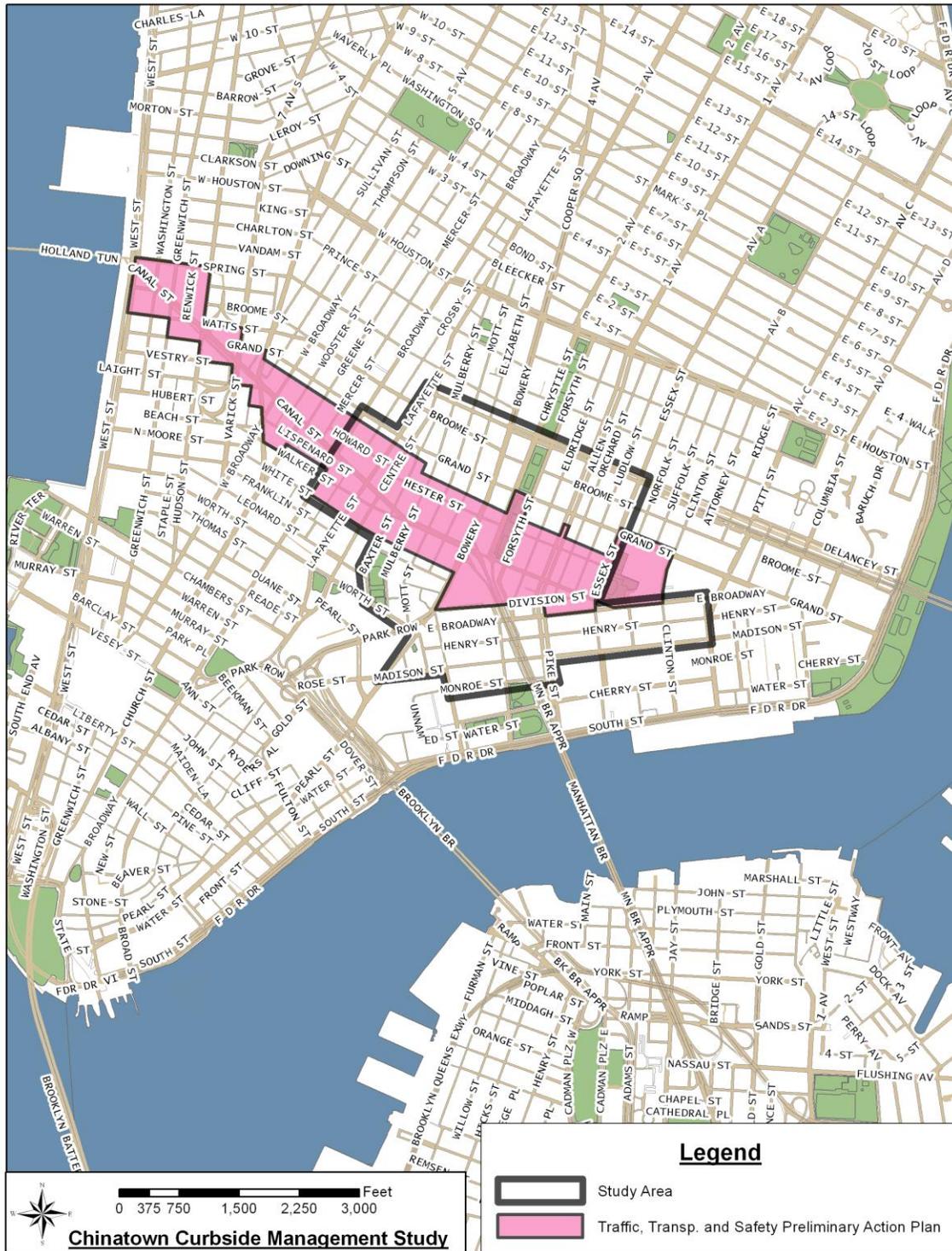
The following guiding principles were identified in relation to parking, transportation, circulation, and safety:

- Strive for a balance in transportation, parking, and security;
- Foster community input and involvement in vehicular and pedestrian traffic planning and monitoring with an ongoing transparent process;
- Advocate for “natural” [holistic] designs and flows; develop improvements to physical layout by taking small steps toward goals that measure the effectiveness/success/failure at each step and provide opportunity to reassess the path accordingly; and
- Resolving parking and transportation issues.

Recommendations include the following:

- Create better pedestrian spaces;
- Plan for a central transportation portal/hub for Chinatown;
- Local shuttle buses;
- Crosstown buses;
- Shuttle buses/vans;
- Interstate buses;
- Re-open Park Row;
- Relocate police headquarters;
- Follow up on Community Board 3 Chatham Square Taskforce;

Figure 16: Traffic, Transportation and Safety Preliminary Action Plan Study Area



TASK 1

LITERATURE REVIEW REPORT

- Create a flexible traffic routing system;
- Re-establish municipal parking;
- Provide mandated taxi-stand areas; and
- Change toll structure on Verrazano Bridge.

APPLICABILITY TO CHINATOWN CURBSIDE MANAGEMENT STUDY

The goals should be reviewed in coordination with the public involvement efforts for the CCMS and incorporated as key topics and issues, if applicable. In addition, the recommendations should be reviewed when developing the short-term improvements for the twenty CCMS blockfaces.