

EXECUTIVE SUMMARY

OVERVIEW

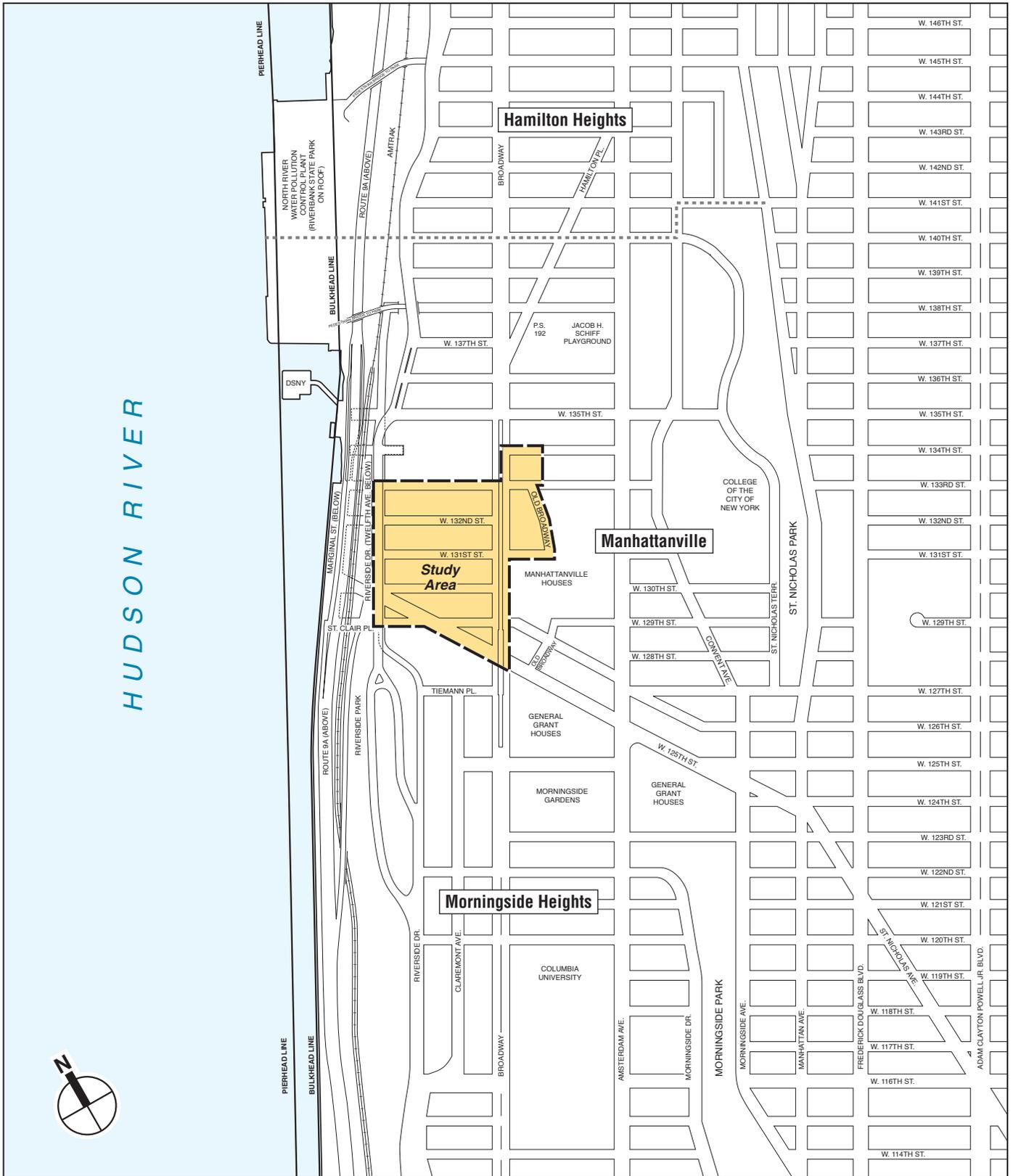
The Manhattanville Neighborhood Conditions Study was commissioned by the Empire State Development Corporation to evaluate physical conditions in a study area approximately coterminous with the area proposed for the development of a new campus by Columbia University. Analysis of neighborhood conditions for this study was begun in September 2006 and continued through April 2007.

The study area encompasses approximately 17 acres in the Manhattanville neighborhood in New York County, roughly bounded by Twelfth Avenue to the west, Broadway and Old Broadway to the east, West 133rd Street to the north, and West 125th Street to the south (see Figure 1). Physical conditions in the study area are mainly characterized by aging, poorly maintained, and functionally obsolete industrial buildings, with little indication of recent reinvestment to reverse their generally deteriorated conditions, particularly in industrial properties. In fact, the last two buildings to be newly constructed in the study area were the Metropolitan Transportation Authority (MTA) Manhattanville Bus Depot in 1991 and a one-story industrial building of less than 2,000 square feet in 1975. There are a few substantial renovation projects underway or recently completed, including the rehabilitation by private owners of several residential buildings along Broadway in the northern part of the study area, the renovation of an industrial building at the corner of West 131st Street and Twelfth Avenue into a mixed-use office and restaurant space, and Columbia University's renovation of the "Studebaker Building" at 615 West 131st Street largely for office use.

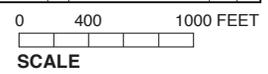
The age of the structures is also a factor in the study area's generally deteriorated conditions. Approximately 87 percent of the buildings in the study area were built more than 50 years ago and, of this 87 percent, about 16 percent were built more than a century ago. Structures of this age typically require more maintenance and diligent upkeep to avoid the costly cumulative effects of water infiltration and to maintain safe building standards. Overall, properties in the study area are characterized by substandard building maintenance over a long period of time, unsafe and unhealthy building conditions, hazardous sidewalk conditions, excessive open building code violations, and numerous underutilized lots.

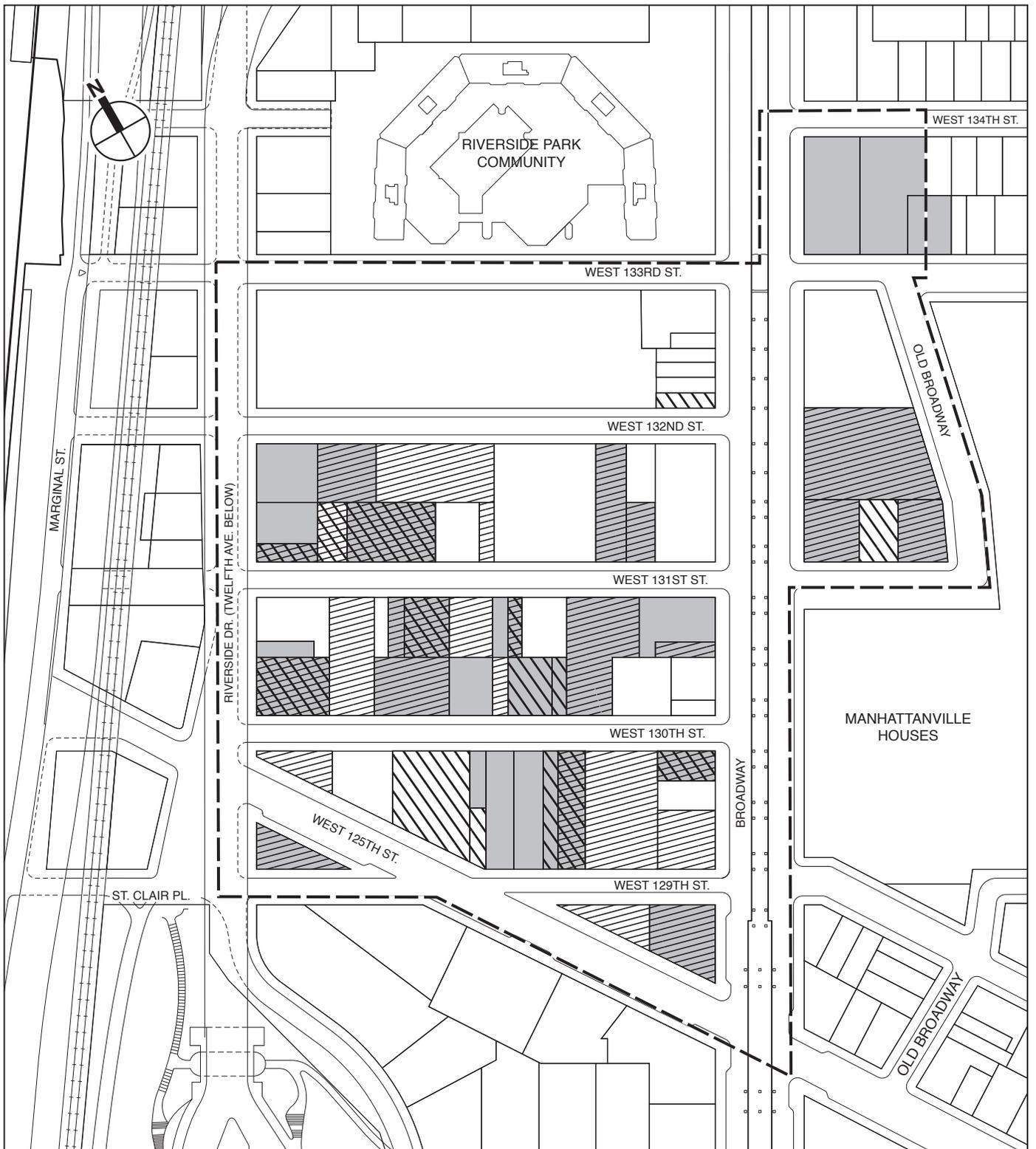
Some of the unsafe dangerous building conditions pose a threat to occupants, such as potential local collapses of roofs or floors, or inaccessible or blocked fire exits, and spray painting automobiles without proper ventilation systems. In some cases, deteriorated structural conditions, such as leaning parapets or damaged masonry walls, pose a threat to pedestrians as well. Likewise, unhealthy building conditions, such as rampant mold growth and vermin infestation, pose a threat to occupants and customers. Other non-structural factors contribute to the generally deteriorated conditions in the study area, including the presence of large-scale transportation facilities that serve to isolate the study area from the rest of the Manhattanville neighborhood, diverse ownership that thwarts property assemblage and reinvestment to meet the demands of a contemporary industrial market, and environmental concerns in an area of concentrated auto maintenance and repair businesses.

Cumulatively, these adverse conditions make the study area as a whole substantially unsafe, unsanitary, substandard, and deteriorated. As illustrated in Figure 2, 48 of the 67 lots in the study area (or 72 percent of the total lots) have one or more substandard condition, including poor or critical physical



 Study Area





-  Study Area Boundary
-  Poor or Critical Physical Condition
-  Vacancy 25% or More
-  Site Utilization 60% or Less

0 200 400 FEET
SCALE

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lot conditions, a vacancy rate of 25 percent or more, or site utilization of 60 percent or less. Based on physical conditions alone, 34 of the 67 lots in the study area (or 51 percent of the total lots) were assessed as being in poor or critical condition. The presence of such a high proportion of properties with multiple substandard conditions suggests that the study area has been suffering from a long-term trend of poor maintenance and disinvestment, leading to the overall condition of deterioration that exists today.

BUILDING CONDITIONS

Detailed field investigations were conducted by Thornton Tomasetti, Inc., a nationally prominent structural engineering firm, to evaluate the physical condition of properties in the study area.¹ In several cases, the physical conditions assessment found unsafe conditions on the exterior and/or interior of buildings that pose a threat to public health and safety. Numerous safety concerns were identified on building exteriors, such as deteriorated and rusted supports and columns, large cracks, missing or loose bricks, missing mortar, or crumbling façade material. The severity of these conditions, particularly those resulting from water infiltration, indicates that building deterioration has occurred over a long period of time. In some cases, these exterior safety hazards were also identified by the New York City Environmental Control Board (ECB), which cited several buildings in the study area for severely hazardous violations, such as the failure to maintain an exterior wall. Additional observations found a cement-like coating or improper paint causing deterioration to exterior walls, improperly sealed former windows or entrances. Severely rusted or damaged sidewalk vaults and poor pavement conditions in front of buildings, including wide cracks and spalling, were found to be hazardous to pedestrians. Also, a prevalence of sidewalk parking in the study area is exacerbating the already substandard sidewalk conditions and forcing pedestrians into the street.

The rundown appearance of building exteriors in the study area, though not a threat to public safety, contributes to a perception of isolation and desolation in the area, manifested by the lack of maintenance and long-term disinvestment among property owners. These aesthetic factors include a persistent graffiti problem, chipping paint, rusty or dented rolling gates, boarded-up and bricked-in windows, and a general lack of trees or other sidewalk amenities. The prevalence of roll-down gates and bricked-in and boarded up windows effectively eliminates transparency to persons or vehicles traversing the site, making the area appear unsafe and uninviting to both pedestrians and automobiles. The new zoning would allow a mix of land uses not currently permitted in the study area that would likely result in more transparent space at the ground level and greater pedestrian activity.

Unsafe conditions within buildings are also common, often posing a threat to employees and/or customers. Structural damage was identified in the interior of several properties, such as rotting, deteriorated, and collapsing beams; severely cracked walls; and rusted, crumbling, and uneven stairs. In many cases, poor roof maintenance over many years has and is causing interior water infiltration. Signs of water damage to ceilings, walls, and floors in study area structures are widespread, including large holes or missing patches in ceilings, water stains, and unhealthy mold infestation. At some properties, missing or broken windows exacerbate problems caused by water infiltration, especially in several properties where water infiltration is close to exposed electrical wiring and therefore creates a safety

1 Thornton Tomasetti, Inc. did not assess the condition of Block 1999 Lot 1, the MTA Manhattanville Bus Depot

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hazard. Further, severely damaged or cracked interior flooring is a safety concern at some properties as well.

Fire safety and access to clear, unobstructed emergency exits are concerns at several properties where exit doors are locked, blocked, or broken; wooden fire stairs are worn and metal fire stairs are corroded; handrails are missing; and fire escapes are severely rusted. Though some of these buildings were constructed before building or fire codes, minimal attempts appear to have been made to remedy situations that are clearly unsafe.

At some locations, unsanitary and unhealthy conditions are apparent, including evidence of vermin, poor pest control, and excessive accumulation of garbage and debris inside buildings. In addition, the open spraying of automotive paint at four properties without proper ventilation poses a health hazard to workers, customers, and pedestrians. Many of the deteriorated and unsafe interior conditions observed during site surveys are the result of abuse and poor upkeep by tenants occupying the buildings, such as blocked fire exits, missing windows, and accumulated garbage and debris.

BUILDING CODE VIOLATIONS

Widespread and numerous open building code violations are also indicative of disinvestment in an area. The Neighborhood Conditions Study found that 75 percent of structures in the study area had open building code violations issued by the New York City Department of Buildings (DOB) and the ECB as of July 2006. The tendency for property owners or tenants to defer maintenance is further illustrated by the number of lots that have multiple open violations. A review of DOB and ECB records indicates that approximately 27 percent of the properties had 10 or more open building code violations, many of which are longstanding, supporting Thornton Tomasetti's findings that a substantial portion of structures have been inadequately maintained for many years.

Boiler and elevator violations were the most prevalent, some requiring elevators to be closed because of unsafe conditions. Other violations included non-compliance with Certificates of Occupancy (C of O), where tenants are operating businesses not permitted by the C of O, which can be a safety concern. Making alterations to buildings without a permit was also cited at one property—another potential safety hazard.

Perhaps more important are the number of properties that have hazardous violations. Eight properties in the study area had one or more violations considered by DOB or ECB to be hazardous, in total 23 hazardous violations (defined as “variations from plans that significantly diminish structural stability, fire rating, fire suppression, or means of egress, and general construction safety and unsafe site conditions that cannot be immediately corrected” for an exterior wall violation) or for boiler violations (“any part of the boiler is considered an ‘unsafe condition’ by the issuing officer.”)¹ Open hazardous violations in the study area also include the failure to maintain an exterior wall, elevator, plumbing, or boiler, as well as work without a permit—all conditions that may compromise the safety of employees and the general public. The study area's high number of open building code violations reveals a lack of effort by property owners or tenants to resolve outstanding building issues, and is yet another indicator of the overall deteriorated and unsafe conditions as well as disinvestment in the study area.

¹ New York City Department of Buildings, *ECB Violation Reference Guide Part II- Certification Requirements for the Top 25 Violations*. (Available at <http://www.nyc.gov/html/dob/html/violations/ecbviorefguide.shtml>). [Accessed on June 25, 2007].

INFRASTRUCTURE, ZONING, AND LAND USE

In addition to the substandard physical condition of many study area properties, other factors, such as the location and condition of the transportation viaducts, topographic features, zoning, and the land use itself, affect the neighborhood's character. The deteriorated and substandard conditions identified in the study area are in part due to its physical isolation from the surrounding neighborhoods of Manhattanville to the north and Morningside Heights to the south. This isolation, both physical and visual, is largely the result of the transportation facilities that block or otherwise impede the flow of pedestrian and vehicular traffic through the study area, particularly the Manhattan Valley IRT viaduct to the east and the MTA Manhattanville Bus Depot to the north. More specifically, the poor maintenance and bleak appearance of the 13-block-long Manhattan Valley IRT viaduct contribute to the perception of isolation and disinvestment in the study area. This highly visible viaduct is a prominent feature for those living or working in the area. However, the prevalence of rust and peeling paint on the viaduct, as well as graffiti and dirt on the stone casing in its northernmost section, casts a negative image on the study area.

Pedestrian movement through the study area is also affected by changes in topography across the study area from north to south and east to west, a condition exacerbated by the absence of significant business or recreational destinations within the study area and a lack of sidewalk amenities. This physical and visual isolation, together with the types of land uses in the study area, results in limited use of the area by pedestrians, particularly after dusk. The area is essentially treeless, uninviting to pedestrians, and bleak. This lack of street activity encourages certain illegal activities, particularly graffiti, which was reported by the New York City Police Department (NYPD) to be a significant problem in the study area.

The longstanding M1-2 and M2-3 zoning has resulted in a pocket of industrial use that is now largely bordered by high-density residential, commercial and institutional uses. The low-density manufacturing zoning serves to further isolate the neighborhood by restricting opportunities for a new type of development that might better integrate the study area into the surrounding neighborhood, enhancing pedestrian flow and neighborhood life in general. The study area is largely devoid of retail, entertainment, and other commercial activities, particularly along Broadway, and the existing auto-related use, transportation, moving and storage, and wholesale trade do not generally attract or cater to the needs of the surrounding residential community.

The existing mix of businesses in the study area also does not promote an active street life, particularly in comparison to the very urban and active environment along Broadway and West 125th Street adjacent to the study area. In fact, the Department of City Planning is currently engaged in a program to rezone 125th Street from Second Avenue to Broadway to strengthen its river-to-river continuity and its viability as a premier arts, cultural, and entertainment destination for residents and visitors. The rezoning would encourage specialty retail, restaurants, cafes and clubs, particularly in the ground floor fronting on 125th Street, and would help remedy the isolating conditions that exist. The strategic planning for the rezoning specifically recommends that visitors be encouraged to move north and south of 125th Street. However, in its current condition the portion of Broadway within the study area lacks

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the retail and commercial activity necessary to encourage pedestrians to move north of 125th Street, except for Mi Flordita.

The types of land uses found in the study area have changed very little over the past 100 years, even though manufacturing employment suffered significant declines in New York City in the second half of the 20th century. At one time, the study area had been a manufacturing, warehousing, and trade-related hub, benefiting from its location along the waterfront, near subway and rail lines, and, more recently, highways. Unfortunately, the area's last surge of business development was in the 1920s, when several five- to six-story loft structures were built in the unrestricted zoning area to house automobile showrooms and service centers where cars were sold, repaired, and stored. Employment in Manhattanville in 1941 was reported to be 3,500 workers.¹ During the 1940s, new car showrooms and large service stations were replaced by used-car dealers and independent repair shops, due largely to World War II. At the same time, non-auto-related industrial firms increased their presence in the area. The shift from a manufacturing-based economy to a service-based economy in the city as a whole was reflected in the industrial zones in Manhattanville. In 1965, Manhattanville contained 111 businesses, employing a total of 5,395 workers. By 1984, the number of businesses decreased to 91, and employment dropped to 1,916—a job loss of 64 percent.

Since the early 1990s, the study area has experienced a moderate growth in office and service-related firms, as well as public sector uses. As of February 2007, the study area's employment was approximately 2,100 workers in both the public and private sectors. The public sector is now the largest employer in the study area with New York City Transit bus operations the largest portion thereof. Employees of the New York City Department of Housing Preservation and Development (HPD) and the NYPD, located in the former Warren Nash Service Station building at 3280 Broadway, comprise the next largest group of public employees. Manufacturing jobs represent slightly less than 10 percent of the total employment in the study area. Despite this concentration of public sector employment, particularly in service-related jobs, there are few buildings in the study area that can accommodate contemporary office or multi-purpose use.

Auto-related businesses continue to dominate the mix of light manufacturing and heavy commercial firms operating in the study area. Currently, there are 27 auto-related businesses, including gas stations, auto repair, auto body and paint shops, and parking lots and garages, which account for about 31 percent of all businesses in the study area, but only about 6 percent of the study area's total employment.

In summary, the historic large automobile showrooms and service centers have given way to small auto service shops that frequently illegally park automobiles on the sidewalk, storage warehouses, and parking garages. While the public sector and office- and service-related employment has grown, the mix of land uses seems to have assembled at random with no dominant user. And despite its advantageous location close to Manhattan's core, the study area has not served as a resource for industrial uses that have vacated more expensive real estate, such as the printers that left Tribeca and Hudson Square or the apparel manufacturers that left the Garment District. In fact, the study area has not seen the transition from industry to arts that other manufacturing districts have experienced around the city,

¹ Historic Preservation Program, Graduate School of Architecture, Columbia University. "A Preservation Plan for Hamilton Heights and Manhattanville." 1996-1997.

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such as SoHo and Williamsburg. Overall, the economy of the study area has been relatively stagnant since the post-war era.

NEIGHBORHOOD REVITALIZATION INITIATIVES

The current condition of the study area reflects a half a century of limited private sector investment, in terms of either new development or rehabilitation of existing structures. Only six buildings have been constructed in the study area since 1960, the latest being the MTA Manhattanville Bus Depot constructed in 1991 on the block bounded by West 132nd and 133rd Streets between Broadway and Twelfth Avenue.¹ Only a handful of property owners in the study area appear to have invested in maintaining their buildings, such as three prominent moving and storage firms (including self-storage), seven residential buildings owned by HPD and a few private entities, as well as Columbia University. As noted above, there are only a few properties that have been recently or are currently being renovated by private owners.

To remedy the long-term absence of private investment in the study area, the public sector responded with several revitalization initiatives. The earliest attempts at urban renewal were made in the 1960s, but no plan was ever implemented. More recently, the study area has been targeted in five public planning initiatives, demonstrating a lack of satisfaction by many with the area in its present form, and showing a continued need for improvement and investment. These plans include the Upper Manhattan Empowerment Zone (UMEZ) beginning in 1994, the Harlem on the River Plan (2000), New York City Economic Development Corporation's (EDC) West Harlem Master Plan (2002), New York City Department of City Planning's (DCP) 125th Street River-to-River Study, and the 197-a Plan proposed by Community Board 9. While UMEZ, which provides public funds and tax incentives as catalysts for private investment in distressed areas, has assisted several businesses and projects in other parts of the empowerment zone, little activity or investment has occurred within the study area. The remaining plans have focused on reconnecting the study area to the waterfront, addressing underutilization, and rezoning efforts to allow a greater mix of uses. To date, none of these initiatives has been implemented, and, as a result, physical conditions in the study area continue to deteriorate.

PROPERTY OWNERSHIP

Multiple property ownership has traditionally been a hindrance to implementation of public initiatives and private redevelopment efforts alike. Plans for revitalizing the study area proposed in 1965 and then again in 1976 were never implemented likely due in part to the high level of multiple property ownership in the area. To facilitate the implementation of its plan to develop a new campus and overcome the pitfalls of multiple property ownership in the study area, Columbia University has purchased 31 tax lots from willing sellers since 2000 and currently owns or has contracted to buy 48 of the 67 tax lots (72 percent) in the study area.² However, the remaining 19 tax lots are owned by the Metropolitan Transportation Authority (MTA), City of New York, and 10 different property owners. As discussed above, there has been no significant independent private investment in individual properties in the study area for several decades, and public sector initiatives to revitalize the study area have not been fruitful. While Columbia University has made significant strides in acquiring properties to implement

¹ The build year for four lots in the study area was not available from the New York City Department of Finance's Real Property Assessment Data database.

² Property ownership information is current as of the date of the last site visit on April 30, 2007.

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its development plans for the study area, the continued ownership of nearly 30 percent of the study area by 12 independent entities or individuals makes revitalization of the area and elimination of deteriorated and substandard conditions problematic for both the public and private sector.

UNDERUTILIZATION

The utilization of lots in the study area was also analyzed for this report to help identify the underlying causes of the generally poor physical and structural conditions in the study area. The underutilization of properties is in part manifested in the extensive deferred maintenance that was observed throughout the study area. About 40 percent of the lots in the study area use less than 60 percent of the floor-area ratio (FAR) permitted under existing zoning. Underutilization creates an economic condition that serves as a disincentive to properly maintaining properties, i.e. incomes streams are limited by the relatively small size of many buildings in the study area and therefore maintenance has been deferred over the long term to improve the economics of ownership.

Underutilization in the study area is associated in part with the size and age of the buildings and their utility for contemporary industrial or commercial uses. An analysis of New York City Department of Finance Real Property Assessment Data (RPAD) indicates that 22 of the 67 lots in the study area (or about 33 percent) are occupied by one-story buildings, which by their very nature use no more than 50 percent of the allowable FAR. Notably, 16 of these one-story buildings (or about 73 percent) were found to be in poor or critical condition, and most of these were built during or before 1930. The combination of low-density, aging structures in poor or critical condition yields space that is generally deficient and substandard to meet the needs of most contemporary industrial and commercial enterprises, except perhaps for auto-related businesses, such as parking and repair. Even some auto-related uses cannot efficiently operate within many of the existing buildings because of their outdated design and engineering, such as low floor-to-ceiling heights and dense column spacing.

In general, the current demand for industrial space in New York City ranges from large lots or buildings that can meet the needs of trucking and distribution companies or construction and recycling businesses, for example, to small buildings better suited to specialty manufacturers in metals, furniture, jewelry or food, among others. Despite the trend toward smaller industrial tenants throughout the city, the deteriorated condition of buildings in the study area makes them unattractive to these users. In addition, the small footprints and gross square footage of many buildings in the study area make them functionally obsolete for most contemporary commercial uses, particularly offices. Furthermore, the extensive history of auto-related and other industrial uses at a majority of lots in the study area raises environmental concerns that may make adaptive reuse cost prohibitive.

The relatively small size of many lots in the study area exacerbates the low utilization rate. Twenty-three lots (34 percent) are less than 5,000 square feet. Of these, 7 are occupied by one-story buildings—resulting again in a utilization rate of no more than 50 percent. While it may have been economically feasible to build on lots of less than 5,000 square feet in Manhattan during the 19th and most of the 20th century, redevelopment of lots with less than 5,000 square feet is not generally attractive to developers today. Thus the utilization rate remains low.

The Manhattanville community itself recognizes underutilization as a problem, with both the West Harlem Master Plan and Community Board 9's 197-a Plan identifying underutilization as an opportunity to be addressed in new development efforts.

ENVIRONMENTAL ISSUES

Due largely to the study area's long-term industrial history, including numerous auto repair facilities, numerous gasoline stations, a bus depot, and a former manufactured gas plant (MGP), nearly all the properties were reported to have environmental issues. Numerous aboveground storage tanks (ASTs), underground storage tanks (USTs), and petroleum spills were documented throughout the study area. Phase II soil samples from several lots had concentrations of metals and/or semi-volatile organic compounds (SVOCs) detected at concentrations greater than regulatory guidance values. The groundwater samples in the study area did not indicate significant widespread contamination; however, as expected, petroleum-related contaminants were identified in some samples. Concentrations of volatile organic compounds (VOCs), SVOCs, and/or metals were detected at concentrations greater than the regulatory standards in all the groundwater samples collected as part of the Phase II investigation. Due to the size, complexity, and age of the study area, and limited Phase II information, there is a potential for impacts in the soil, groundwater, and/or soil vapor throughout the area. The Phase II investigation concluded that the contaminants identified in soil and groundwater do not pose a threat to human health unless they are disturbed. However, the New York City Department of Environmental Protection would require additional investigation and, potentially, remediation or mitigation on all lots in the study area if the area were to be redeveloped. As mentioned above, the potential for necessary remediation or mitigation during construction can be cost prohibitive for smaller, individual redevelopment efforts.

CONCLUSION

As illustrated in Figure 2, the Manhattanville Neighborhood Conditions Study identified 48 of the 67 lots in the study area (or approximately 72 percent) as substantially deteriorated or substandard as a result of poor or critical structural conditions; other unsafe, unsanitary, and/or unhealthy building conditions; underutilization; and high vacancy. In addition, the advanced age and small size of many of the structures in the study area render a substantial portion of the existing building stock functionally obsolete for many types of community facilities, retail and other commercial uses, amusement uses, and some light manufacturing uses permitted under the existing zoning. The current preponderance of automotive service establishments in the study area, as well as other types of general service establishments (such as vehicle storage, warehousing, and moving and storage companies), are among a limited array of businesses that could use these properties without undue expense for necessary renovations. Finally, the effective isolation of the study area by large-scale transportation facilities, such as the NYCT bus garage and the Manhattan Valley IRT viaduct, casts a bleak pall and unsafe image on the study area that limits integration with and connectivity to the surrounding neighborhoods, dampens pedestrian activity and urban street life found in surrounding neighborhoods, and creates opportunities for graffiti, which only adds to the sense of deterioration and disinvestment in the study area.

But the statistics hardly convey the palpable, pervasive presence of the physical deterioration and substandard environment that is clearly visible to any who visit, work or live in the study area. The exteriors of many of the buildings show obvious signs of deterioration, lack of maintenance over a prolonged period of time, wear and tear, and in some cases hazardous structural conditions. Large cracks are visible in several facades, some extending multiple stories from the street to the roof. Missing bricks and mortar are also visible in many facades. Windows are missing or cracked. Lintels and parapets

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are leaning and threatening. Sidewalks are cracked and crumbling in many locations throughout the study area. In addition, many of those who are employed in the study area face unsafe and unsanitary conditions in the workplace on a daily basis, including vermin, standing water, and unhealthy mold. They work in buildings that have inoperable or unsafe elevators, exposed wiring, cracked or crumbling ceilings and floor slabs, and missing or corroded stair treads. Their health and safety are threatened by inaccessible or blocked fire exits or fire escapes that lead to dead ends or provide no egress to a public way. Overall, the physical conditions observed in the study area clearly indicate that this portion of the Manhattanville neighborhood is suffering from long-term deterioration and disinvestment.