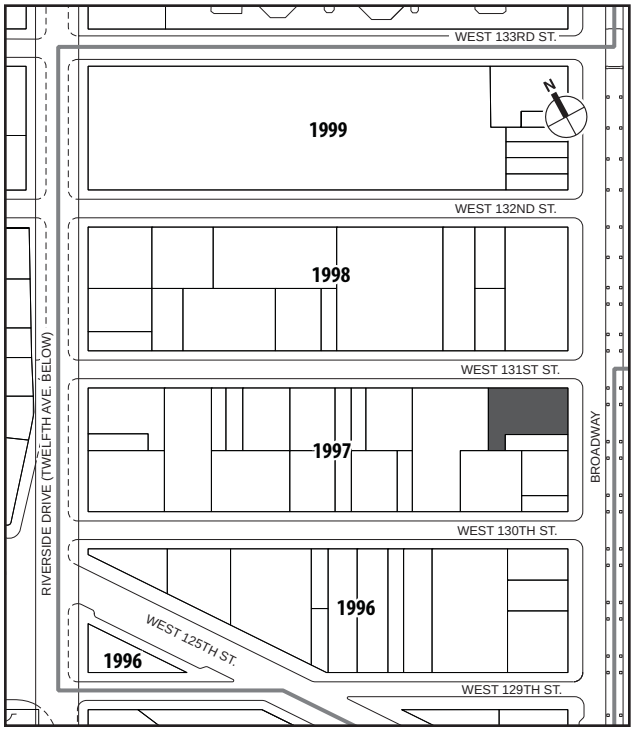
Block 1997 Lot 34

SITE CONDITION: CRITICAL



LOCATION, USE, ZONING, AND OWNERSHIP

Within an M1-2 zoning district, Lot 34 is located at 3251 Broadway at the corner of Broadway and West 131st Street (see Photographs A and B). The lot, which was acquired by the Trustees of Columbia University on January 23, 2006, contains three structures primarily occupied by auto-related tenants. The main building is a five-story brick structure. There are also two smaller, one-story brick buildings: one south of the main building fronting Broadway and the other west of the main building fronting West 131st Street. The total building area on the lot is 43,600 gsf. DOB records list the buildings' construction year as 1910; however, the three buildings' construction type and their presence on a historic Sanborn map from 1893 indicate that they were likely constructed prior to 1893.

PHYSICAL AND STRUCTURALCONCERNS

Overall, Lot 34 was evaluated by Thornton Tomasetti, Inc. to be in critical condition due to a combination of structural distress, substandard interior and exterior building conditions, and other hazardous site conditions.

Structural distress in the five-story building is significant and widespread. As shown in Photographs C and D, there are several wide cracks and signs of deterioration on the exterior masonry walls. In the south exterior wall, wide cracks are evidence that the structure is deteriorating and that local failure of the masonry bearing wall could occur (see Photograph E). Additional distress in the building includes water damage to the timber joists, masonry walls, and window headers and sills (see Photographs F, G, and H, respectively); a rotting timber column (see Photograph I); corroded steal beams (see Photograph J); and cracked, spalling, and deflecting floor slabs (see Photograph K). Deterioration of the timber joists has already caused local collapses of the floor slab in several locations (see Photograph L). In addition, ceilings throughout the building are corroded and, in some cases, have collapsed (see Photographs M and N). Structural distress is likely worsening due to continued water infiltration through the damaged roof membrane (see Photograph O), cracks in the exterior walls, improperly sealed windows (see Photographs A, B, and P), and a deteriorated door. Also, cars are washed inside the building without an adequate drainage system, which is likely causing water infiltration to the timber joists below and has likely caused or exacerbated the deterioration of the timber joists (see Photographs P and Q). If not addressed, this water infiltration will eventually lead to local collapses of the timber floor and roof joists systems.

The one-story building fronting West 131st Street is generally in poor condition, with cracking and spalling of the floor slab in several locations (see Photograph R), cracks in the interior walls, and local

Block 1997 Lot 34

corrosion stains visible on a portion of the ceiling. The interior roof structure is concealed and could not be observed; however, it is likely that the roof structure is constructed of timber joists and is deteriorating from water infiltration, as signaled by the ceiling corrosion. As shown in Photograph S, the exterior north wall has deteriorated bricks and missing mortar, and vegetation is growing through the masonry, signaling likely water infiltration through the exterior wall. The wooden garage door is in poor condition as a result of water damage. The roof membrane appears to be in poor condition, with signs of deterioration observed.

The condition of the one-story south building fronting Broadway appears to be fair, with minor cracks in the floor slab, exterior masonry, and interior walls, which are likely the consequence of water infiltration. The roof structure itself is concealed and could not be observed, although it has likely deteriorated from water infiltration as well. The roof membrane appears to be in fair condition, with no signs of major damage (see Photograph T).

The sidewalk and the curb cut in front of all three buildings are in fair condition with minor cracking.

HEALTH AND SAFETY CONCERNS

There are several health and safety items that create an unsafe environment for tenants and/or customers in the five-story building, most notably the hazardous condition of the freight elevator, which is used to transport cars and people to all five floors and the basement. The elevator is out of alignment with the floor planes, as shown in Photograph U, and the elevator shaft masonry has several cracks (see Photographs V and W). The elevator currently has several open building code violations, as detailed in the next section. Other safety concerns include auto-painting materials that are sprayed in the building without proper ventilation systems and are stored improperly (see Photograph X); haphazardly stored garbage and debris throughout the five-story building, presenting a safety hazard to workers (see Photograph Y); and some evidence of vermin in the stairwell.

Fire safety is of particular concern in the five-story building. Concrete encasing, necessary to fireproof the building's structural system, is missing from a portion of three second-floor timber columns and from several steel floor beams on the first level (see Photographs Z and AA). In addition, auto body and auto repair tenants throughout the building use paints and solvents and collect waste oil that could accelerate a potential fire in the building. Further, a portion of the building's southeast emergency stairway is an exposed timber structure without fireproofing, and the timber roof joists and stair risers are deteriorated from water infiltration. A fire stair on the western side of the building has heavily corroded stair treads (see Photograph BB), a severely deteriorated second-floor exit door with the potential for debris to fall from the lintel (see Photograph CC), and a significant amount of dog feces, which, in addition to being an unsanitary condition, presents a slipping hazard (see Photograph DD). The first-floor exit door from this western stairwell was blocked by a piece of wood during the site visit and the gate in a chain-linked fence leading to the street from this egress route was padlocked. In addition, means of egress via the fire escape on the east façade is restricted by the presence of plexiglass and plywood in windows leading to the fire escape, as well as numerous cars parked in close proximity to the exit windows (see Photograph EE).

In the one-story building fronting Broadway, an opening to a stairwell leading from the basement to the first floor has been covered over, preventing this stair from being used in an emergency.

Block 1997 Lot 34

BUILDING CODE VIOLATIONS

Lot 34 has 25 open building code violations, the second highest number of violations in the study area, which were issued by DOB and ECB between 1974 and 2005. Nearly half of the violations (12 of 25) are related to the main building's elevator, citing work without a permit, elevator safety test, and failure to maintain an elevator. Of the 12 open violations for the elevator, six were considered to be hazardous and of high severity by ECB and one was considered to be hazardous by DOB. One violation, dated 2002, was issued for altering a building without a valid certificate of occupancy. This violation stated that an auto repair shop created a spray booth with an exposed partition wall made of wood studs and plywood on the second floor. Four of the violations, dated 1991, were cited for electric sign issues. No further information was provided for the remaining eight violations by the DOB Building Information System.

ENVIRONMENTAL ISSUES

The Phase I ESA identified the following environmental issues: current and former use as a body shop and auto repair facility, large quantity generator of hazardous waste, possible former gasoline UST, a waste oil AST, waste oil drums, hydraulic car lifts, discarded automotive batteries, and heavy petroleum staining on the concrete ground surface. No Phase II investigation has been performed for this lot.

Block 1997 Lot 34

Photograph 1997-34-A

Photograph 1997-34-B

Block 1997 Lot 34

Photograph 1997-34-C

Photograph 1997-34-D

Block 1997 Lot 34

Photograph 1997-34-E

Photograph 1997-34-F

Block 1997 Lot 34

Photograph 1997-34-G

Photograph 1997-34-H

Block 1997 Lot 34

Photograph 1997-34-I

Photograph 1997-34-J

Block 1997 Lot 34

Photograph 1997-34-K

Photograph 1997-34-L

Block 1997 Lot 34

Photograph 1997-34-M

Photograph 1997-34-N

Block 1997 Lot 34

Photograph 1997-34-O

Photograph 1997-34-P

Block 1997 Lot 34

Photograph 1997-34-Q

Photograph 1997-34-R

Block 1997 Lot 34

Photograph 1997-34-S

Photograph 1997-34-T

Block 1997 Lot 34

Photograph 1997-34-U

Photograph 1997-34-V

Block 1997 Lot 34

Photograph 1997-34-W

Photograph 1997-34-X

Block 1997 Lot 34

Photograph 1997-34-Y

Photograph 1997-34-Z

Block 1997 Lot 34

Photograph 1997-34-BB

Photograph 1997-34-AA

Block 1997 Lot 34

Photograph 1997-34-CC

Photograph 1997-34-DD

Block 1997 Lot 34

Photograph 1997-34-EE