

<b>SITE CONDITION: POOR</b>
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## Block 1997 Lot 33



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### LOCATION, USE, ZONING, AND OWNERSHIP

Lot 33 is located at 3249 Broadway between West 130<sup>th</sup> and West 131<sup>st</sup> Streets. The 2,500-sf site contains a vacant 2,500-gsf, one-story building that, according to the Department of Finance RPAD Master File, was constructed in 1930 with no subsequent recorded alterations (see photo A). Earth Tech surveyed the property (February 2008) and found the building to be vacated. At the time of the AKRF report, the building was being used as an auto repair shop. Earth Tech reviewed the NYC Department of Finance Automated City Register Information System (ACRIS) and found that Lot 33 was acquired by The Trustees of Columbia

University from Three Boroughs, LLC. on February 4, 2005 (date of deed transfer). At the time of the AKRF report, Lot 33 was zoned M1-2; however it has since been designated C6-1 as part of the Special Manhattanville Mixed Use District (MMU) rezoning (effective December 19, 2007).

### PHYSICAL AND STRUCTURAL CONCERNS

The building was evaluated by Thornton Tomasetti, and AKRF, as being in poor condition owing to a combination of “structural distress, substandard interior and exterior building conditions, and other site conditions, and safety concerns”. At the time this site was inspected by Earth Tech, on March 3, 2008, the physical or structural conditions that can be directly observed appeared generally consistent with the findings reported by AKRF and Thornton Tomasetti.

The building interior is open and continuous, about 25 feet by 100 feet in plan with a concrete slab-on-grade floor. The building consists of two distinct structural units: to the east, a timber joist roof (“low roof”) spans north-south between concrete bearing walls; and to the west, the roof is approximately 4 feet higher (“high roof”), spans north-south between brick bearing walls, and is made up of metal deck on steel channels (see photo B). The underside of the high roof is exposed, whereas the low roof is covered with a sheet metal ceiling, with timber joists and sheathing visible only through a few small openings in the metal ceiling channels (see photos C and D).

Most surfaces of the interior structural elements and finishes are deteriorated, soiled and in a poor state of repair (see photos E and F). The slab-on-grade exhibits surface deterioration, e.g., cracks, spalls and non-level areas, and the brick and concrete bearing walls also have cracks and a few spalls (see photos G, H, I and J). The sidewalks along Broadway appear to be relatively new (see photo K).

The conditions that deserve immediate attention are the state of the low timber roof, and the steel high roof. Where exposed, the timber roof structure exhibits severe water damage (see photo L), and received an appropriate condition rating of poor by Thornton Tomasetti. Little of the building's timber roof is exposed, but the water stains, corrosion and sagging panels on the sheet metal ceiling suggest that the observed timber damage is prevalent (see photo C). Unless the remainder of the roof is exposed and found to be structurally sound, casual access upon the low roof should be prohibited until the roof's ability to sustain pedestrian loads or the design roof live load is confirmed. The high steel roof, as observed from grade, also exhibited widespread evidence of water infiltration such as stains and corrosion on the metal deck soffits and supporting framing (see photo D). Much of the metal deck sags between supporting beams, and the entire roof deck seemed excessively flexible in response to pedestrian loading (see photo M). If this building is to remain in service, a thorough, hands-on inspection of the roof members is warranted to measure the extent of corrosion damage, followed by stress analyses to confirm the roof's load capacity.

Based upon what is currently known and observable about the building's structural conditions, Earth Tech concurs with the overall assessment by AKRF and Thornton Tomasetti of this building's condition as poor.

## **HEALTH AND SAFETY CONCERNS**

Earth Tech concurs with the health and safety concerns noted in the AKRF report. Although the building has been vacated by the former tenant, no repairs to the building structure or finishes have been made. At the time of the Earth Tech survey, several health and safety hazards were noted, including:

- The building has two overhead roll-up doors on the Broadway façade and no man door/ fire exits whatsoever (see photo A).
- The timber stair from mezzanine is not code compliant with a handrail on one side and a splice at a stringer that is potentially unsafe (see photos N and O).
- Interior wall surfaces exhibit miscellaneous examples of water damage with paint spalling and peeling off throughout the building (photo P); (see photo J).
- The floor slab is in poor condition, uneven (in one location, the difference is about 3 inches) and has miscellaneous cracks and spalls; this presents a safety (tripping) hazard (see photos Q and P).
- The electrical wiring is haphazard, with open panels and exposed wires (see photo R).
- The mezzanine at the western portion of the building exhibits signs of corrosion (see photo M); the metal deck is sagging several inches at every span, and noticeably bounces when walking on the roof (see photo S). The eastern portion of the roof is

about 4 feet lower, creating a roof pocket without any access ladder, and has only one drain for the whole roof area (see photo T). The parapet masonry wall at the eastern side (facing Broadway) has a wide crack and is potentially unsafe for pedestrians below.

## **BUILDING CODE VIOLATIONS**

Earth Tech reviewed DOB Building Information System files and confirms the AKRF report findings of no open building code violations for Lot 33. Earth Tech found no additional open violations issued subsequent to the release of the AKRF report.

## **UNDERUTILIZATION**

Subsequent to the release of the AKRF report, Lot 33 was rezoned from an M1-2 (FAR 2.0) to C6-1 (FAR 6.0) district (effective December 19, 2007). Earth Tech confirms the AKRF utilization findings under the prior M1-2 designation including lot area (2,500-sf), maximum allowable floor area (5,000-zsf), and a 50 percent site utilization with the existing 2,500-gsf building.

Under the new C6-1 designation (FAR 6.0) there is now a maximum allowable floor area potential of 15,000-zsf. Therefore, with an existing 2,500-gsf building, Lot 33 utilizes only 17 percent of its development potential under C6-1.

## **ENVIRONMENTAL ISSUES**

The AKRF report indicated that a Phase I investigation was conducted on Lot 33. All hazardous material and environmental contamination issues relevant to the site should have been identified in the FEIS in Appendix F.1: Environmental Issues in Project Area. A Phase II investigation was not conducted for this site because access to this proposed sampling location was denied at the time of the Phase II study. They further add in Section 7.0 that sampling at these locations will be performed when site access is available.

Earth Tech reviewed Appendix F.1 and confirms that most environmental issues documented in the FEIS were included in the AKRF report. The Phase I ESA found the potential for subsurface contamination associated with the following environmental issues: current and former use as an auto repair shop, chemical storage, hydraulic lifts, and an open-status spill. Earth Tech found the property listed in EPA's Air Releases (AIRS/AFS) database for potential air emissions.

## **SUMMARY EVALUATION**

Earth Tech's inspection of the site noted no improvements subsequent to the inspection by Thornton Tomasetti. Earth Tech confirms the existence of previously noted structural

distress, substandard interior and exterior conditions, and a variety of health and safety concerns. More specifically, where visible, these deficiencies include: most of the interior structural elements and finishes in a poor state of repair; the slab-on-grade exhibits cracks, spalls and non-level areas; and the brick and concrete bearing walls also exhibit cracks. The state of the timber and the steel roofs are both in poor condition from severe water damage, although little of the building's timber roof is exposed, water stains, corrosion and sagging panels on the sheet metal ceiling suggest that the observed timber damage is prevalent. The metal deck sags between supporting beams, and the entire roof deck is excessively flexible.

Additional health and safety hazards were noted by Earth Tech, including: no fire exits; non-compliant stairs; peeling paint throughout the building; dangerously uneven floor surface with cracks and spalls; haphazard electrical wiring with exposed wires and panels; and a cracked parapet presenting a potential danger to pedestrians below. Other environmental concerns relate to the site's past use as an auto repair shop, with a history chemical storage, hydraulic lifts, and an open-status spill. As a result of its inspection and findings, Earth tech confirms the site as being poor condition.

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Photograph 1997-33-A



Photograph 1997-33-B



**Photograph 1997-33-C**



**Photograph 1997-33-D**



Photograph 1997-33-E



Photograph 1997-33-F



**Photograph 1997-33-G**



**Photograph 1997-33-H**



Photograph 1997-33-I



Photograph 1997-33-J



Photograph 1997-33-K



Photograph 1997-33-L



Photograph 1997-33-M



Photograph 1997-33-N



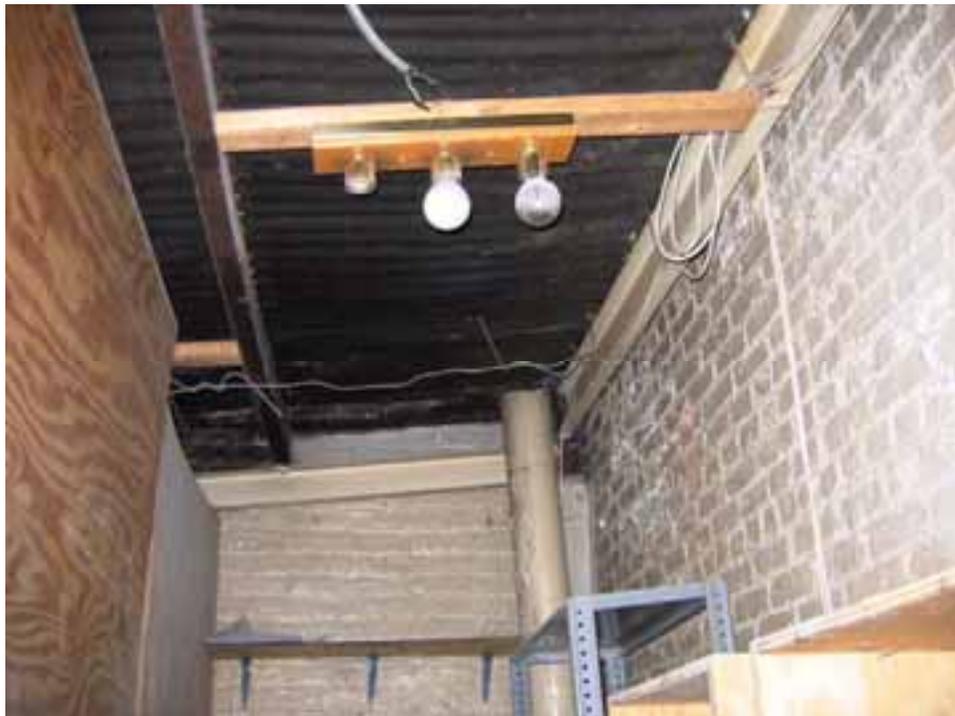
Photograph 1997-33-O



Photograph 1997-33-P



**Photograph 1997-33-Q**



**Photograph 1997-33-R**



**Photograph 1997-33-S**



**Photograph 1997-33-T**

<b>SITE CONDITION: CRITICAL</b>
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## Block 1997 Lot 34



Source: MapPluto copyrighted by the New York City Department of City Planning, 2007

### LOCATION, USE, ZONING, AND OWNERSHIP

Lot 34 is located at 3251-3253 Broadway (and 602 West 131<sup>st</sup> Street) on the corner of West 131<sup>st</sup> Street. There are three buildings on the 9,975-sf lot that, according to the Department of Finance RPAD Master File, were built in 1910 with no subsequent recorded alterations. The main building is a five-story brick structure (see photo A). There are also two smaller, one-story brick buildings: one south of the main building fronting Broadway (see photo B) and the other west of the main building fronting West 131<sup>st</sup> Street (see photo C). The total building area on the lot is 43,600 gsf. The AKRF report indicated the three buildings' presence

on a historic Sanborn map from 1893, indicating that they were likely constructed prior to this date. Earth Tech reviewed the NYC Department of Finance Automated City Register Information System (ACRIS) and found that Lot 34 was acquired by The Trustees of Columbia University on February 3, 2006 (date of deed transfer). Earth Tech's survey of February 2008 found two auto related businesses at the site and an unrelated tenant in the basement. At the time of the AKRF report, Lot 34 was zoned M1-2; however it has since been designated C6-1 as part of the Special Manhattanville Mixed Use District (MMU) rezoning (effective December 19, 2007).

### PHYSICAL AND STRUCTURAL CONCERNS

As evaluated by Thornton Tomasetti, and later reported by AKRF, the building is in critical condition owing to a combination of structural distress, especially to the timber floor and roof decks, and other deficient interior and exterior building conditions.

At the time this site was inspected by Earth Tech, on February 25, 2008, the observed instances of structural damage and distress that can be directly observed, or indirectly deduced (e.g. structural elements covered with damaged finishes), appeared consistent with the findings reported by AKRF and Thornton Tomasetti. Significant water damage to the various building elements is evident throughout. Damage to the brick bearing walls, appeared somewhat more prevalent than reported by AKRF (e.g. vertical cracks from the roof to mid-height, on the east end of the north wall described as undamaged, see photo D). Following the acquisition of the building by Columbia University in 2006,

sidewalk sheds were installed in 2006 along Broadway and West 130<sup>th</sup> Street in response to complaints about cracked masonry (see photo E).

Following the inspections by Thornton Tomasetti, local repairs (see Photo F) had been performed in both fire exit stairs (replaced skylight glass at the SE stair and a replaced flight of steel steps at the NW stair, fifth floor) of the five story building, but no substantial repairs or reconstruction of primary or secondary structural elements. Significant reported deficiencies, including widespread water damage (see Photo G), racked and spalled concrete wearing courses on timber floor decks (see Photo H), cracked masonry bearing walls (see Photo I) and deteriorated roofing, remained evident.

A reported fire on the fourth floor of the main building in April of 2006 led to damage and subsequent replacement of the majority of glass windows on 4<sup>th</sup> and 5<sup>th</sup> floor with the Plexiglas sheets and/or plywood.

The most intractable deficiencies, water damage to the timber floor and roof decks and the supporting timber structures, appear attributable to long standing water infiltration through the buildings' roofs, exterior walls, and possibly the reported practice of washing automobiles inside the five-story building when it was used for parking and auto repairs. Where observable, timber floor structures exhibit severe water damage (see Photo J), which, judging from the corroded condition of the sheet metal ceilings (see Photo K) that typically cover structures, is probably widespread. The vacated areas should not be returned to active service unless additional investigations are conducted to confirm the long term safety and stability of the timber floor and roof structures. This could include exposure of hidden structure to enable hands-on inspection, material sampling and testing, and analysis to estimate the residual strength of structures.

Earth Tech concurs with the assessment by Thornton Tomasetti and AKRF as to the critical nature of the building's physical and structural systems.

## **HEALTH AND SAFETY CONCERNS**

Since the AKRF report, all tenants from the upper floors have been vacated from the building. Most of the litter from the vacated floors has been removed. The most heavily corroded stair treads in the north/west stairwell, which were reported by AKRF as serious concerns, have been replaced with a new flight of metal stairs. The dog feces in the same stairwell have been removed. However, both north/west and south/east exit stairwells do not meet fire exit code requirements and present an apparent safety hazard. In the south/east stairwell issues include: an exposed timber structure with damaged/ missing fire protection (see photo L and M); an unused water heater stored in the stairwell blocking the exit path (see photo N); at the time of Earth Tech's survey an exit door from the 5<sup>th</sup> floor was padlocked from the stairwell side (see photo O); and wooden treads and risers are deteriorated throughout. In the north/west stairwell issues include: under the skylight, areas of cementitious plaster are about to collapse (see photo P); there is a hole in the masonry of the fire-rated stair enclosure (see photo Q ); the exit path is blocked by

debris inside the stairwell (see photo R); the exit door on first floor that opens to a platform over the fenced areaway leads to a door in the fence that is blocked by both a poorly installed sidewalk bridge and a large piece of plastic (previously a news stand roof?) installed prior to Columbia University ownership (see photos S and W)

At all floors, the freight elevator platform is poorly aligned with floor slabs and the floor slabs are dangerously deteriorated/ spalled at elevator door (see photo T).

In the automotive repair shop on the first floor (West 131<sup>st</sup> Street) cars are being spray-painted without proper ventilation (see photo U).

The tenant in the basement floor stores furniture haphazardly without maintaining proper exit passageways (see photo V). The electrical wiring is exposed and hazardous throughout. The same tenant has littered the areaway north of the building (see photo W).

## **BUILDING CODE VIOLATIONS**

Earth Tech checked DOB Building Information System files for Lot 34 and confirms much of the data reported by AKRF. However, there are minor differences between Earth Tech's recent findings and the AKRF report. These include one dismissed violation issued subsequent to the release of the report, one AKRF reported violation that was not listed on the DOB website, and two open violations issued subsequent to the report.

Earth Tech found 25 open building code violations for Lot 34 issued between 1974 and 2007. Currently, half of the violations (13 of 25) are related to the main building's elevator, citing work without a permit, elevator safety test, and failure to maintain an elevator. One elevator violation issued on October 1, 2005 was dismissed subsequent to the AKRF report on November 22, 2006. There were also two new elevator violations issued subsequent to the report on January 15, 2007 (elevator) and April 2, 2007 (elevator safety test). Of the 13 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. Of the eight violations reported by AKRF (Appendix A Table A-1) where no further information was provided by the DOB Building Information System, there was one violation reported for 3251 Broadway that could not be confirmed in the DOB database.

## **UNDERUTILIZATION**

There was no Underutilization section write-up completed in the AKRF report for Lot 34 but Appendix A Table A-2 reports the site utilization data. Subsequent to the release of the AKRF report, Lot 34 was rezoned from an M1-2 (FAR 2.0) to C6-1 (FAR 6.0)

district (effective December 19, 2007). Earth Tech confirms the AKRF utilization findings under the prior M1-2 designation including lot area (9,975 sf), maximum allowable floor area (19,950 zsf), and a 219 percent site utilization with the existing 43,600-gsf building. The site is overbuilt by 23,650 sf.

Under the new C6-1 designation (FAR 6.0) there is now a maximum allowable floor area potential of 59,850 zsf. Therefore, with an existing 43,600-gsf building, Lot 34 utilizes only 73 percent of its development potential under C6-1.

## **ENVIRONMENTAL ISSUES**

The AKRF report indicated that a Phase I investigation was conducted on Lot 34. All hazardous material and environmental contamination issues relevant to the site should have been identified in the FEIS in Appendix F.1: Environmental Issues in Project Area. There was no Subsurface (Phase II) investigation conducted for this site.

Earth Tech reviewed Appendix F.1 and confirms that all environmental issues documented in the FEIS were included in the AKRF report. Environmental issues identified by the Phase I include: 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. It was also noted that the site is listed in the RCRA database as a large quantity generator of hazardous waste.

## **SUMMARY EVALUATION**

Earth Tech's inspection of the site was consistent with the findings reported by AKRF and Thornton Tomasetti. Significant water damage to the various building elements is evident throughout, while damage to the brick bearing walls appeared more prevalent than reported by AKRF. In 2007, subsequent to Columbia University's acquisition of the building, sidewalk sheds were installed along Broadway and West 130<sup>th</sup> Street. While some localized repairs have been made to fire exit stairs since the Thornton Tomasetti inspection, no substantial repairs or reconstruction of primary or secondary structural elements has occurred. Significant deficiencies, including widespread water damage, racked and spalled concrete, cracked masonry bearing walls, and deteriorated roofing, remained evident. The majority of windows on the 4<sup>th</sup> and 5<sup>th</sup> floors are covered with the Plexiglas and/or plywood, the result of a fire in 2006. Since the AKRF report, all tenants from the upper floors have been vacated from the building, these vacant areas should not be returned to active service unless additional investigations are conducted to confirm the long term safety and stability of the timber floor and roof structures.

As noted, some localized repairs and litter clean-up have been made, including a new flight of metal stairs. However, both north/west and south/east exit stairwells do not meet fire exit code requirements and continue to present apparent safety hazards, including the

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exit door on first floor being blocked. Tenant behavior contributes to safety concerns, including: the automotive repair shop on West 131<sup>st</sup> Street, which has spray-painting of automobiles without proper ventilation; and the basement tenant stores furniture haphazardly without maintaining proper exit passageways, while electrical wiring is exposed and hazardous throughout. Twenty-five outstanding building code violations are open against the building, including seven rated as high, serious or hazardous by DOB or ECB. The site's past and current history as an auto repair facility with a waste oil AST, waste oil drums, hydraulic car lifts, discarded automotive batteries, heavy petroleum staining on the concrete ground surface, and possible petroleum UST, are causes of environmental concern. The site is listed in the RCRA database as a large quantity generator of hazardous waste.

As a result of its inspection and findings, Earth Tech confirms the ranking of the site condition as critical.

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Photograph 1997-34-A



Photograph 1997-34-B



Photograph 1997-34-C



Photograph 1997-34-D



Photograph 1997-34-E



Photograph 1997-34-F



Photograph 1997-34-G



Photograph 1997-34-H



**Photograph 1997-34-I**



**Photograph 1997-34-J**



**Photograph 1997-34-K**



**Photograph 1997-34-L**



**Photograph 1997-34-M**



**Photograph 1997-34-N**



Photograph 1997-34-O



Photograph 1997-34-P



**Photograph 1997-34-Q**



**Photograph 1997-34-R**



Photograph 1997-34-S



Photograph 1997-34-T



Photograph 1997-34-U



Photograph 1997-34-V



**Photograph 1997-34-W**

## Block 1997 Lot 40

<b>SITE CONDITION: POOR</b>
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Source: MapPluto copyrighted by the New York City Department of City Planning, 2007

### LOCATION, USE, ZONING, AND OWNERSHIP

Lot 40 is located at 604 West 131<sup>st</sup> Street between Broadway and Twelfth Avenue with lot area fronting both West 130<sup>th</sup> and West 131<sup>st</sup> Streets (see photos A and B). The lot is 19,984-sf and accommodates three inter-connected buildings for a total building area of 22,465-gsf. The main building is two stories and located at the northwest section of the lot, and two one-story buildings are to the east and south. There is also a paved yard used as a storage and loading/unloading area on the lot's southwest portion. According to the Department of Finance RPAD Master File the building was constructed in 1940 and subsequently altered in

2000. Earth Tech surveyed the site (March, 2008) and found the buildings occupied by a building maintenance and contractor supplier. Earth Tech reviewed the NYC Department of Finance Automated City Register Information System (ACRIS) and found that Lot 40 was acquired by Danmike, LLC in July 2005 (date of deed transfer). The Trustees of Columbia University are in contract to acquire the lot from the current owner. At the time of the AKRF report, Lot 40 was zoned M1-2, however, it has since been designated C6-1 as part of the Special Manhattanville Mixed Use District (MMU) rezoning (effective December 19, 2007).

### PHYSICAL AND STRUCTURAL CONCERNS

This complex of three interconnected buildings serves a construction and maintenance supplies vendor (see photo B). The central two-story building that houses office and warehouse space was built in 1940 (see photo C), while the two single-story warehouse annexes (see photo D and E) were constructed within the past 10 years. The two-story building consists of brick masonry bearing walls that carry a second floor deck of CIP concrete slabs and concrete-encased steel beams (see photo F), and timber roof trusses (see photo G). The timber trusses and the roof deck above are covered with sheet metal finishes that conceal the condition of the truss members, and the composition and condition of the roof deck. The newer, single-story annex buildings consist of masonry bearing walls that carry steel-framed metal deck roofs (see photo H). There are concrete slabs on grade at the ground floors of each building and a partial basement below the two-story building.

Based on visual observations during site inspections by Thornton Tomasetti in September 2006, October 2006, and April 2007, this building and site was evaluated as being in poor condition overall, due to “structural distress, some substandard exterior, interior and site conditions, and health and fire safety concerns”, primarily with reference to the older two-story building. The newer single-story buildings were described as being in fair condition, with no signs of significant structural distress.

Thornton Tomasetti’s evaluation cited moisture damage and cracking in the two-story building’s masonry walls and concrete encased steel members as significant structural concerns. According to their condition rating system, various building and site features were described as being in poor condition such as the exterior masonry walls (vertical, horizontal and diagonal cracks and water stains (see photos I, J and K), sidewalk cracks and spalls (see photo L), the west side security fence (out of plumb), and the vehicle ramp between grade and the second floor (corroded, encased steel beams and concrete reinforcement, cracked encasement). The remaining site features were described as no worse than fair but typically exhibiting deficiencies attributable to moisture damage or the wear and tear expected from a warehousing operation.

When inspected on March 12, 2008, Earth Tech’s observations were consistent with the conditions reported in detail by Thornton Tomasetti. From a standpoint of structural integrity, the two-story building appears generally serviceable at this time, but as Thornton Tomasetti’s position implies, their concerns include the future safety and stability of the masonry bearing walls. Since record plans of these buildings were not available, and information limited to that derived from walk-thru, visual inspections, the proportions and construction of the walls, and the supports for the second floor and roof decks (apparently brick pilasters, but possibly encased steel columns, see photo M) is unknown. Given the observed prevalence of wide cracks in the walls and water damage (see photo N and O) throughout other building elements, the integrity of the walls cannot be taken for granted or endorsed for unlimited future service.

The unknown condition and construction of the timber roof trusses and the roof deck carried by the trusses is a similar concern. The deck and each timber truss member is covered with sheet metal (see photo O), which at several locations is stained with corrosion (see photo P), indicating possible, hidden water damage.

Based upon observable conditions and available information, Earth Tech concurs with the evaluation by Thornton Tomasetti for this building as poor. If extended service for this property is desired, additional investigations must be performed to confirm the present integrity, and long term prospects for the uncertain structural systems, the roof structure and masonry bearing walls. This would likely entail document searches and/or surveys, exposure and probes for hidden structure, material sampling and testing, and capacity analysis.

## **HEALTH AND SAFETY CONCERNS**

Earth Tech concurs with the health and safety concerns noted in the AKRF report, which all relate to the means of egress. At the time of the Earth Tech survey, several health and safety hazards were noted:

- The exit door on the south side of the northern building was obstructed from inside by stored goods, locked, and obstructed from outside with a closed shutter door and tightly stored goods (see photos Q and R).
- Inside the south building (a recently constructed one) there is an exit door in the southwest corner. The exit sign above this door was reportedly moved to the wall next to it to be visible from the isle, however, on the day of the survey this exit sign was completely blocked by stored goods (see photos S and T). The floor level at this door is higher than the yard level outside; without a warning sign, this is a tripping hazard (see photo U). On the day of Earth Tech's survey, stored goods obstructed the exit at this door from outside as well (see photo V).
- In the same building, Earth Tech observed an exit sign placed next to the overhead roll-up door, which the building code does not consider as an exit door (see photo W).
- There is a gate in the fence to provide exit from the yard to the sidewalk when the overhead roll-up door is closed. However, on the day of Earth Tech's survey, this gate was obstructed by stored goods and locked (see photo X).
- The sidewalk at West 131<sup>st</sup> Street is in fair to poor condition (see photos Y and Z). However, the sidewalk at West 130<sup>th</sup> Street is in poor to critical condition with wide open cracks and spalling concrete; this is a hazard for pedestrians (see photos AA, AB and L).

## **BUILDING CODE VIOLATIONS**

Earth Tech checked DOB Building Information System files and confirms the AKRF report findings of no open building code violations for Lot 47. Earth Tech found no additional open violations issued subsequent to the release of the AKRF report.

## **UNDERUTILIZATION**

Subsequent to the release of the AKRF report, Lot 40 was rezoned from an M1-2 (FAR 2.0) to C6-1 (FAR 6.0) district (effective December 19, 2007). Earth Tech confirms the AKRF utilization findings under the prior M1-2 designation including lot area (19,984-sf), maximum allowable floor area (39,968-zsf), and a 56 percent site utilization with the existing 22,465-gsf building.

Under the new C6-1 designation (FAR 6.0) there is now a maximum allowable floor area potential of 119,904-zsf. Therefore, with an existing 22,465-gsf building, Lot 40 utilizes only 19 percent of its development potential under C6-1.

## **ENVIRONMENTAL ISSUES**

The AKRF report indicated that a Phase I investigation was conducted on Lot 40. All hazardous material and environmental contamination issues relevant to the site should

have been identified in the FEIS in Appendix F.1: Environmental Issues in Project Area. There was no Subsurface (Phase II) investigation conducted at this site.

Earth Tech reviewed Appendix F.1 and confirms that most environmental issues documented in the FEIS were included in the AKRF report. The Phase I ESA identified the following environmental issues: former use for auto repair and as a garage, former gasoline USTs, and possible former fuel oil storage.

Additional issues that were not mentioned in the AKRF report include: current use as a hardware store, previous use as a warehouse and a previous fuel oil permit. The site reconnaissance notes indicated that there was no evidence of storage tanks on the site. Earth Tech found the site to be listed in RCRA Info for chemicals handling.

## **SUMMARY EVALUATION**

Earth Tech confirms the findings of Thornton Tomasetti's inspection of this site, noting the moisture damage and cracking in the two-story building's masonry walls and concrete encased steel members as significant structural concerns. Other conditions rated as poor include: cracks and stains to the exterior masonry walls, sidewalk cracks and spalls; out of plumb security fence; and the vehicle ramp to the second floor with corroded encased steel beams and concrete reinforcement, and cracked encasement. The hidden condition and construction of the roof trusses and deck is of concern because of stains and corrosion, indicating possible water damage. Health and safety concerns focus especially on inadequate egress and include: blocked and locked exit doors; hidden exit sign; and the inappropriate designation of an overhead roll-up door as an exit door. Additional concerns relate to the sidewalks, which at West 130<sup>th</sup> Street are in poor to critical condition, and at West 131<sup>st</sup> Street are in fair to poor condition. Environmental concerns associate with the site's former use for auto repair and as a garage, former gasoline USTs, and possible former fuel oil storage. Based on its inspection and findings, Earth Tech continue to rate this site's overall condition as poor.

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Photograph 1997-40-A



Photograph 1997-40-B



Photograph 1997-40-C



Photograph 1997-40-D



Photograph 1997-40-E



Photograph 1997-40-F



**Photograph 1997-40-G**



**Photograph 1997-40-H**



**Photograph 1997-40-I**



**Photograph 1997-40-J**



**Photograph 1997-40-K**



**Photograph 1997-40-L**



Photograph 1997-40-M



Photograph 1997-40-N



Photograph 1997-40-O



Photograph 1997-40-P



Photograph 1997-40-Q



Photograph 1997-40-R



Photograph 1997-40-S



Photograph 1997-40-T



Photograph 1997-40-U



Photograph 1997-40-V



**Photograph 1997-40-W**



**Photograph 1997-40-X**



Photograph 1997-40-Y



Photograph 1997-40-Z



Photograph 1997-40-AA



Photograph 1997-40-AB

<b>SITE CONDITION: FAIR</b>
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## Block 1997 Lot 44



Source: MapPluto copyrighted by the New York City Department of City Planning, 2007

### LOCATION, USE, ZONING, AND OWNERSHIP

Lot 44 is located at 614 West 131st Street between Twelfth Avenue and Broadway. The 7,494-sf lot contains a five-story 35,595-gsf brick warehouse building occupied by a Tuck-It-Away self-storage facility (see photo A). According to the Department of Finance RPAD Master File, the building was constructed in 1930 with no subsequent recorded alterations. However, the AKRF report notes the building's presence on a historic Sanborn map from 1909, indicating that it was likely constructed prior to 1909. Earth Tech reviewed the NYC Department of Finance Automated City Register Information System (ACRIS) and found

that Tuck-It-Away Inc. acquired the property in 1982. At the time of the AKRF report, Lot 44 was zoned M1-2; however it has since been designated C6-1 as part of the Special Manhattanville Mixed Use District (MMU) rezoning (effective December 19, 2007).

### PHYSICAL AND STRUCTURAL CONCERNS

As evaluated by Thornton Tomasetti, and later reported by AKRF, the exterior of the building is in fair condition due to some substandard exterior and site condition, and safety concerns. The interior of the building was not available for inspection.

At the time this site was inspected by Earth Tech on April 17, 2008, the interior of the building was not available for inspection. No interim or permanent repairs to correct or mitigate the previously reported instances of structural damage, distress or instability were found. The deficiencies and structural damage observed by Earth Tech are generally consistent with the findings reported by AKRF and Thornton Tomasetti.

The east exterior wall has a wide vertical crack that extends from the roof to the second floor and rust marks between windows at all floors (see photos B and C). The south exterior wall shows signs of rust and spalling towards the top of the wall (see photos D and C). The west exterior wall has minor paint deterioration towards the roof area. The north exterior wall has severe paint deterioration typically around the windows, and possible water damage at those locations (see photos E and F). It also has stepped cracks (see photos F and G), a vertical crack at the rollup personnel door (see photo H), displaced bricks (see photo I), and a damaged possible parapet coping (see photo J). The

roof membrane was observed from the roof of the adjacent building, it appears to be in good condition (see photo E). The sidewalks are in fair condition (see photo K and L).

Since the previous inspection there are no significant changes in the physical condition of the building and Earth Tech concurs with the assessment by Thornton Tomasetti and AKRF as to the building being in fair condition.

## HEALTH AND SAFETY CONCERNS

The property was available for exterior survey only; the property was observed from the sidewalk and the roof of a neighboring building.

AKRF reported several health and safety concerns for this building. Earth Tech notes the following observations:

- Earth Tech concurs with the AKRF evaluation of sidewalks and curbs as fair and good, respectively (see photos K and L).
- Earth Tech did not observe hazardous *“spalling stucco on the south exterior wall”* as reported by AKRF (see photos M and N).
- Earth Tech concurs with the AKRF/Thornton Tomasetti’s evaluation of a 4’ wide gap at the south of the lot as *“an unsafe condition for those in the yard of building to the south as there is no barrier between the yard and the gap”* (see photo O). However, Earth Tech must note that providing a safety barrier at the level change might not necessarily be the responsibility of the owner of Lot 44.
- Earth Tech observed from the roof across the street that the height of the roof parapet is much lower than 3 ft-6 in required by the building code of the City of New York. It appears that the corrective work on raising parapet height started at some point, but has never been finished (see photos E and J).

## BUILDING CODE VIOLATIONS

Earth Tech reviewed DOB Building Information System files and confirms the AKRF report findings of 17 open building code violation for Lot 44. Earth Tech found one additional open violation subsequent to the release of the AKRF report resulting in a total of 18 violations for the property to date.

Lot 44 has 18 open building code violations issued between 1977 and 2005. Eleven of the violations, issued by DOB or ECB between 1990 and 2005, are for elevator issues including elevator safety test, work without a permit, and failure to maintain an elevator. Earth Tech found an additional DOB elevator related violation issued January 2007 subsequent to the AKRF report. The remaining six violations were issued by DOB, four between 1977 and 1986, and two at unknown dates. No additional information is provided for the violations in the DOB Building Information System.

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## **UNDERUTILIZATION**

There was no Underutilization section write-up completed in the AKRF report for Lot 44 but Appendix A Table A-2 reports the site utilization data. Subsequent to the release of the AKRF report, Lot 31 was rezoned from an M1-2 (FAR 2.0) to C6-1 (FAR 6.0) district (effective December 19, 2007). Earth Tech confirms the AKRF utilization findings under the prior M1-2 designation, including: lot area (7,494 sf), maximum allowable floor area (14,988 zsf), and a 237 percent site utilization with the existing 35,595-gsf building. Under the previous zoning, the site was overbuilt by 20,607-sf.

Under the new C6-1 designation (FAR 6.0) there is now a maximum allowable floor area potential of 44,964 zsf. Therefore, with an existing 35,595-gsf building, Lot 44 utilizes 79 percent of its development potential under C6-1.

## **ENVIRONMENTAL ISSUES**

The AKRF report indicated that no Phase I or II investigations were conducted on Lot 44. However, all environmental issues identified by the area-wide PESA should have been identified in the FEIS Appendix F.1: Environmental Issues in Project Area.

Earth Tech reviewed Appendix F.1 and confirms that all environmental issues documented in the FEIS were included in the AKRF report. Environmental issues identified by the PESA include: former use as a garage, former gasoline USTs, and possible fuel oil storage. No evidence of current storage tanks was noted in the preliminary inspection

## **SUMMARY EVALUATION**

AKRF reported the exterior of the building as in fair condition. Earth Tech was also able to conduct only exterior inspection of the building. The deficiencies and structural damage observed by Earth Tech are generally consistent with the findings reported by AKRF and Thornton Tomasetti., including a wall with a wide vertical crack from the roof to the second floor, additional step cracks, rust marks between windows at all floors, paint deterioration, and displaced bricks. Earth Tech notes that the height of the roof parapet is much lower than that required. There have been no significant changes in the physical condition of the building since the previous inspection and Earth Tech maintains the rating of the site's overall condition as fair

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**Photograph 1997-44-A**



**Photograph 1997-44-B**



**Photograph 1997-44-C**



**Photograph 1997-44-D**



**Photograph 1997-44-E**



**Photograph 1997-44-F**



Photograph 1997-44-G



Photograph 1997-44-H



**Photograph 1997-44-I**



**Photograph 1997-44-J**



**Photograph 1997-44-K**



**Photograph 1997-44-L**



**Photograph 1997-44-M**



**Photograph 1997-44-N**



**Photograph 1997-44-O**

<b>SITE CONDITION: POOR</b>
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## Block 1997 Lot 47



Source: MapPluto copyrighted by the New York City Department of City Planning, 2007

### LOCATION, USE, ZONING, AND OWNERSHIP

Lot 47 is located at 620 West 131<sup>st</sup> Street between Broadway and Twelfth Avenue. The 2,498-sf site is fully covered by a one-story, 2,498-gsf building that, according to the Department of Finance RPAD Master File, was constructed in 1920 with no subsequent recorded alterations (see photo A). Earth Tech surveyed the site (February 2008) and found it used as an auto repair shop. AKRF noted that the building was vacant at the time of their report; the current tenant was relocated from 3251 Broadway to its current location on Lot 47. Earth Tech confirms the AKRF finding that the north façade of the building extends beyond the lot

line to the adjacent building on Lot 48. Earth Tech checked the NYC Department of Finance Automated City Register Information System (ACRIS) and found that Lot 47 was acquired by The Trustees of Columbia University from Three Boroughs, LLC on February 4, 2005 (date of deed transfer). At the time of the AKRF report, Lot 47 was zoned M1-2; however it has since been designated C6-1 as part of the Special Manhattanville Mixed Use District (MMU) rezoning (effective December 19, 2007).

### PHYSICAL AND STRUCTURAL CONCERNS

This building was evaluated by Thornton Tomasetti, and was later reported by AKRF, as being in poor condition due to a combination of local structural distress, subpar exterior and interior conditions, and other hazardous site conditions.

The most significant structural concerns were the numerous wide cracks in exterior masonry walls (see photo B, C), and water and probably fire damage to the timber roof (see photo D). Other reported non-structural deficiencies, such as missing parapet coping and cracked and spalled sidewalks (see photo E, F), were mostly corrected subsequent to the 2007 inspections by Thornton Tomasetti. Other extensive but mainly superficial cosmetic repairs have been made to ready the space for the present occupant, an auto body shop (see G). These repairs included repointing or caulking open cracks in the interior and exterior faces of the exterior brick and CMU walls, painting these walls and painting the sheet metal ceiling. When inspected on March 6, 2008 by Earth Tech, the

openings reported by Thornton Tomasetti in the ceiling had been closed and the timber roof was visible through one small opening only.

At the time this site was inspected by Earth Tech, the observable instances of deteriorated or damaged structural features still appeared consistent with the findings reported by Thornton Tomasetti. Where visible, the timber roof joists appeared water damaged and charred as had been reported. The reported cracks in masonry wall could be located, and where filled, many had re-cracked (see photo H). The sheet metal ceiling mounted on the timber roof joists, reportedly stained and water damaged, is beginning to again exhibit broad areas of corrosion, indicating the use of inappropriate paints or poor surface preparation before painting (see photo I). The usual, ongoing mechanisms of structural deterioration seemed unaffected by the 2007 repairs. The conditions of both the exterior bearing walls and the timber roof structure remain as concerns.

According to a representative of Columbia University at the time inspections were conducted by Thornton Tomasetti in 2007, there were a greater number of openings in the sheet metal ceiling through which the timber roof structure could be viewed, and other ceiling panels were removed for this purpose. A structural engineer, unrelated to Thornton Tomasetti, was engaged at that time by Columbia University to evaluate the roof. Whether this advice included recommendations for any particular duration of safe service or follow up inspections and studies is unknown to Earth Tech.

If this building is to remain in extended service, any findings and recommendations documented in 2007 by Columbia University's structural engineer should be reviewed, and if inconclusive, another hands-on inspection of the roof structure be conducted, with material testing and analysis as required, to confirm structural integrity and identify any repairs that may be necessary. If extended service is contemplated, more positive remedies to stabilize the masonry bearing walls should also be considered, such as structural bonding and reinforcement for active cracks, and stress relief joints to minimize future cracking. The superficial repairs observed by Earth Tech are unlikely to seal or stabilize the walls for any extended period.

In view of the building's age (more than 80 years), and the uncertain condition of the roof structure and bearing walls, Earth Tech concurs with the assessment by Thornton Tomasetti and AKRF as to the poor nature of the building's physical and structural systems.

## **HEALTH AND SAFETY CONCERNS**

AKRF report did not list any health and safety concerns for this building other than citing "subpar exterior and interior conditions, and other hazardous site conditions". There is now a tenant with an automotive repair shop in possession. According to Columbia University personnel, some repairs have been done by Columbia University to the building's structure and/or finishes, namely: some roof repairs; coping stone installed

where it was missing on West 131<sup>st</sup> Street façade (see photo J); sheet metal ceiling patched and painted; ceiling and interior and exterior walls painted (see photo G, K); new overhead shutter door installed; new heater installed (photo L). The sidewalk also appears to have been recently replaced and is in fair condition (see photo E).

Nonetheless, at the time of the Earth Tech survey, several health and safety hazards were noted:

- The fire exit door on the northwest corner of the building leads to the passageway on another lot (Lot 48), which in turn has a gate, leading to the street. This gate does not have the required exit hardware and was observed being locked on the day of Earth Tech’s survey. The door does not have the required hardware, does not have an exit sign, and was blocked by a dumpster on the day of Earth Tech’s survey (photo M).
- The steep stair leading to storage on the mezzanine level above the office lacks handrails- a safety concern (see photo N).
- The entry gate to the passageway and the awning above it are technically located on a different lot (Lot 48); however, they are part of the building’s West 131<sup>st</sup> Street façade. The awning above the entrance is hanging in a tilted position and might be hazardous to pedestrians (see photo O).

## **BUILDING CODE VIOLATIONS**

Earth Tech checked DOB Building Information System files and confirms the AKRF report findings of no open building code violations for Lot 47. Earth Tech found no additional open violations issued subsequent to the release of the AKRF report.

## **UNDERUTILIZATION**

Subsequent to the release of the AKRF report, Lot 47 was rezoned from an M1-2 (FAR 2.0) to C6-1 (FAR 6.0) district (effective December 19, 2007). Earth Tech confirms the AKRF utilization findings under the prior M1-2 designation including lot area (2,498 sf), maximum allowable floor area (4,996 zsf), and a 50 percent site utilization with the existing 2,498-gsf building.

Under the new C6-1 designation (FAR 6.0) there is now a maximum allowable floor area potential of 14,988 zsf. Therefore, with an existing 2,498-gsf building, Lot 47 utilizes only 17 percent of its development potential under C6-1.

## **ENVIRONMENTAL ISSUES**

The AKRF report indicated that a Phase I investigation was conducted on Lot 47. All hazardous material and environmental contamination issues relevant to the site should

have been identified in the FEIS in Appendix F.1: Environmental Issues in Project Area. There was no Subsurface (Phase II) investigation conducted on this site as access to the proposed sampling location was unavailable.

Earth Tech reviewed Appendix F.1 and confirms that all environmental issues documented in the FEIS were included in the AKRF report. The Phase I ESA identified the following environmental issues: former use as an auto repair shop, a former gasoline UST, a waste oil AST, and hydraulic lifts.

## **SUMMARY EVALUATION**

On the basis of Earth Tech's site inspection and findings, a rating of the site as in poor overall condition is maintained. Although extensive cosmetic repairs have been made by Columbia University to accommodate the new tenant, the underlying structural deficiencies remain. Cracks in the masonry walls that had been filled were re-cracking. The new sheet metal ceiling mounted on the timber roof joists is again exhibiting broad areas of corrosion. The conditions of both the exterior bearing walls and the timber roof structure remain as concerns and, where visible, the timber roof joists appeared water damaged and charred. Earth Tech recommends material testing and analysis, as required, to confirm the structural integrity of the roof, and that more positive remedies to stabilize the masonry bearing walls should also be considered. Although AKRF did not cite specific health and safety hazards at this site, Earth Tech noted several, including: a blocked fire door without the proper hardware and signage; a steep stair without handrail; and a hazardously skewed awning over the sidewalk. The site's past history as an automobile repair shop with a former gasoline UST, a waste oil AST, and hydraulic lifts add to its environmental concerns. In view of the building's age (more than 80 years), and the uncertain condition of the roof structure and bearing walls, Earth Tech concurs with the rating of the overall condition of the site as poor.

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Photograph 1997-47-A



Photograph 1997-47-B



**Photograph 1997-47-C**



**Photograph 1997-47-D**



**Photograph 1997-47-E**



**Photograph 1997-47-F**



Photograph 1997-47-G



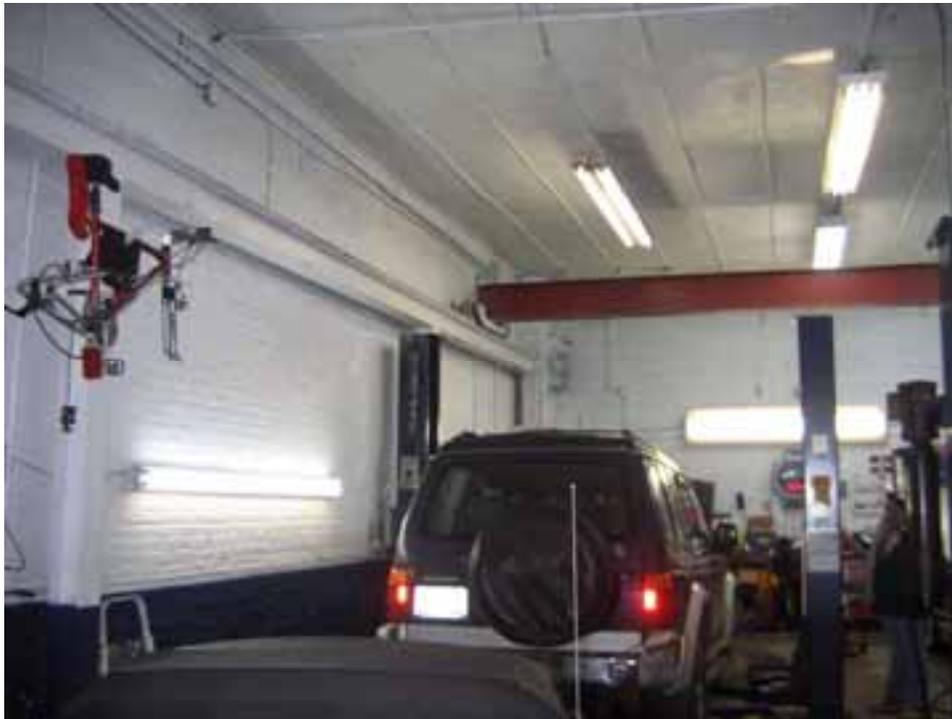
Photograph 1997-47-H



Photograph 1997-47-I



Photograph 1997-47-J



Photograph 1997-47-K



Photograph 1997-47-L



Photograph 1997-47-M



Photograph 1997-47-N



Photograph 1997-47-O