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SUPPLEMENTAL CULTURAL RESOURCE SENSITIVITY STUDY AND PAST IMPACT ANALYSIS OF THE UNION SQUARE EAST PROJECT (BLOCK 870)

1985

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For:
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January 29, 1985

Allee, King, Rosen and Fleming, Inc.
114 East 32 Street
New York, N.Y. 10016

Dear Ed,

As per our discussion of Monday, January 28, 1985, I am enclosing herewith our revision of the Supplemental Union Square East Project Cultural Resource Sensitivity and Past Impact Study.

I appreciate your input and assistance in clarifying the parameters and details of this study. I will be available at your convenience, after February 4, 1985, for any follow-ups or discussions which may be necessary in the future.

Yours Sincerely,

Joel W. Grossman, Ph.D.
Principal Investigator

JWG:mw
cc: Mr. Howard Goldman

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ADDENDA:

Sources - Maps - Pictures
Boring Data

UNION SQUARE EAST PROJECT

This brief historic sensitivity study is being submitted to augment the draft Environmental Impact Statement of the Union Square East Project, situated between 14th and 15th Streets and between Union Square and Irving Place. In particular, the focus of this historic survey has been conducted to address two issues: 1) documentary and cartographic evidence for 18th and 19th century historic events and occupations on this block, and 2) the evaluation through the combination of historic accounts, recent building records and current site-specific boring logs, to identify the potential for surviving early historic surfaces or structural remains of archaeological or historical significance, beneath or between the most recent deep-basement building phase at the site.

In addition to the previously defined architectural history of the most recent 20th century buildings (addressed in the earlier EIS), this supplementary research has surveyed and will summarize available evidence for the 17th through 19th century activities at this site. Although in the final analysis it is unlikely that these earlier remains have survived the most recent deep basement construction activities of the 20th century construction phase, this overview has provided positive evidence that the block was the focus of early historic activity of the 17th century through to the present.

Additional to this documentary research, a major focus of this study involved the joint evaluation of recent 20th century building records in order to document basement depths together with a synthesis of recent on-site boring logs to establish modern demolition fill depth, for those basements which lack appropriate documentary evidence. As the appended overlay maps document, this combined documentary and boring data has confirmed that late-19th to mid-20th century structural alterations have intruded upon or obliterated all but a small fraction of the once-exposed backyard areas initially indicated both by historic views and by the 19th century Bromley and/or Perris Atlas sheets.

HISTORIC ACTIVITIES ON THE BLOCK - 17TH-19TH CENTURIES

Given the fact that early deeds for this block are not available or do not survive until after 1785, 17th century characterizations of this block must be based on the careful reading of often generalized historic accounts, as well as available evidence from surviving historic maps.

One of the central issues pertaining to 17th century activities for this site involved clarification of the relationship of this block and early references to Dutch West India Company farm holdings in particular the farm or bouwerie of Peter Stuyvesant, the Director-General of Nieuw Amsterdam from 1647 to 1664.

The earliest available map dealing with this period in any detail is the 1670 copy of the 1639 Manatus map. The captions associated with this map describe the "Company's bouwerie or farm", "with an excellent house" somewhere in the area. The issue of its precise location is not clarified by any 17th century records, and only becomes reconstructable after a 110 year gap in the cartographic record, with the 1766-67 military war map produced for the British by Ratzer, commonly referred to as the Ratzer Plan.

18TH CENTURY ACTIVITIES

The 1767 Ratzer Plan provides the first detailed evidence for the area's topography and colonial settlement pattern prior to the advent of surviving deeds in 1785. The Ratzer Plan clearly delineates roads, surface features, property boundaries and farmsteads in accurate scale both for contemporary historic features and for the more recent 19th century place markers. It clearly shows 1) the presence and ownership of the earliest farmsteads in the region and 2) the clear definition of property boundaries; the fact that the original Stuyvesant farm or bouwerie was located far to the east of the project area and that the additional Stuyvesant family holdings skirted around and outside of the block's present limits. At the same time, this detailed plan shows the earliest farmstead in the vicinity as belonging to I. Tiebout. The first deed for the project block, dated 1795, belonged to Mary Magdalene Tiebout, a relative of I. Tiebout. When overlaid to scale, the project block correlated with two undeveloped agricultural fields half-way between the farmstead of I. Tiebout to the north and the road to Stuyvesant's farm to the south (Fig. 1-2).

After this date, recorded deeds document the transfer of an acre of property within the project area, but no Lots, to a David Mann, and then subsequently in 1804 to R. Dawson, who then passed it to a David Dunham. Dunham then becomes visible and traceable with the next surviving historic maps dating to the first decade of the 19th century.

19TH CENTURY ACTIVITIES

The first of these 19th century cartographic sources is the 1807 Bridges map, a partially actualized planning document which projected the future layout of a north-south street grid system over the irregular colonial roadways and lot alignments. Although Union Square was shown extending down to 10th Street, (which was never formalized in subsequent construction activities), the map does show the clear relationship between the earlier property/lot alignments and locations to the general orientation and layout of New York's modern street system. Although the resolution is poor, these former street, structure and building locations are displayed as dots with the roads, shown as lines of parallel dots. Despite its low resolution,

this original overlay truly shows the property within the project block as containing a number of pre-1807 structures and parcels.

The next detailed map data relating historic properties to modern street lines is the 1811 Randel's Farm map. In general, this shows that the late 18-early 19th century lot lines ran perpendicular to the angled Union Square side of the lot and parallel to the most recent western lot lines, a pattern which continued through the 19th century. These properties were divided by a street then known as Tiebout Street which overlapped modern Lots 6 and 7. To the south of the street, the map shows long, rectangular lots belonging to David Seaman and Thomas C. Taylor, which overlapped the south-eastern half of the block in its present configuration. To the north of Tiebout Street, and overlapping 14th Street, was a large lot belonging to Cornelius T. Williams. Each of these properties overlapped with and extended beyond the modern boundaries of the project site. The 1811 Randel's Farm map also confirms the location of the former Stuyvesant properties as having their closest boundary a half a block away to the north-east and clearly outside of the project site.

This period of the first two decades of the 19th century corresponds in time to the initial plans and subsequent layout of Union Square or Union Place. As part of the general descriptions of the park's development are several references which generally describe this area as it was around 1815. In reference to the park itself, the Commission report of 1807 defines the layout of a small park "where fresh air might be obtained when the city block might be built up". It was called Union Place because it was located at the juncture of two principal thoroughfares. Finally, in 1815, by an act of the legislature, Union Place was formally designated as a public meeting place or commons for people in the city, but as Stokes in his "Iconography of Manhattan Island" noted, "for many years before that, it was occupied by squatters' shanties". He also noted that prior to 1815, the Union Square area was used as a potters' field or burial ground for the indigent. Only in 1845 after an initial investment of $116,000 was the park initially landscaped and only after this date, were the first major mansions of the area erected.

19TH CENTURY LAND ALTERATIONS

A number of early engravings and geological references provide a basis for characterizing the general nature of the terrain in the vicinity of Union Square prior to the early 19th century. A few specific references speak of soil and terrain conditions in the immediate project area at this time period, and several others refer to the general cutting and filling activities prior to 1833. One reference in particular is important because it appears to refer to the depth of soil above bedrock after the general filling activity but prior to the impacts of deep basement construction in the late 19th and early 20th centuries.

Although not a written characterization, the earliest perspective of the pre-fill topography and land forms in the immediate project area are indicated by the 1767 Ratzer Plan showing detailed drainage and lowland swamp area limits. This view (Fig. 5) shows the immediate project area north of the long roadway extending off the bouwerie as an undeveloped set of agricultural plots of grain fields and orchards. Both the Stuyvesant mansion and the project area are bounded to the north and southeast by two drainages. These open into the East River as low swampy estuary/tidal flats demarcated as salt marshes on this 18th century view. A similar irregular drainage running north and south, parallel and west of the historic bouwerie roadway, shows the former pre-Union Square area as a similar low, swampy drainage system with flat, higher land on each side of the road. Several small hills are evident halfway between the 18th century shore line and the bouwerie road, but they are neither prominent nor close to the immediate project area. A perspective ground view preserved as an engraving by James Smillie, entitled "The Junction of Broadway and Bouwerie" depicts the actual cutting and filling activities in the Union Square area to the left and isolated homesteads, and work crews in the process of cutting and filling the area in the approximate locale of 14th and 15th Streets to the east of Bouwerie. The caption associated with this photograph cites an 1833 guidebook which describes "the square having been recently altered and enlarged, to include, in addition to the part north of 14th Street, 'a large triangle to the east carved out of Bouwerie Hill'" (Stokes collection, N.Y. Public Library, Plate 8, engraved by James Smillie in Kouwenhoven, 1972). Thus, from this engraving alone, it is clear that this area had been heavily altered by cutting and filling, prior to 1833. This activity was also documented by Cozzens in his 1833 "Geology of New York City", in which he describes the truncating of hills to use as fill for swamps and low grounds (P. 35). Similarly, in his 1833 "Historic Tales of Old New York", Watson specifically noted "I observed great digging of the hills and removal of earth going on, all about the Stuyvesant mansion, house and farm. Mr. Nicholas Stuyvesant told me they often came to Indian graves, known as such by having oyster shells interred with the bones and sometimes some fragments of fragile pottery". This particular reference is important because the inclusion of the observation concerning disturbed Indian graves makes it clear that this land alteration activity impacted and cut away the original exposed Colonial and 18th century surfaces into which or on which prehistoric remains were found.

Finally, several references specifically address the composition of these areas of high ground with specific allusions to sandy hills (Gratacap 1901:6). Gratacap described the general area south of 21st Street as having almost no exposures of rock, but instead consisting of a diversified surface of hills of gravel, sand and earth intermingled and confusingly dotted over with large boulders (Gratacap 1909:10). He also described what appears to be the low area on Ratzer's 18th century map in the area of 5th Avenue (between 15th and 18th Streets) as mobile and

fluid quicksand. Thus, from these references it is apparent that the sandy matrix below the modern building foundations and above the bedrock consists of secondary fill, most probably comprised of glacial till cut away from the promontories of high sandy ground referred to in early 19th century accounts.

In addition to these general characterizations, one 19th century account provides concrete evidence to the post-filling depth of these secondary deposits in the immediate vicinity of 14th Street and Union Square. Cozzens' 1833 "Geology of New York City" provides a graphic section of the length of Manhattan Island with its access along Broadway. This document specifically shows between 10 and 13 feet of coarse sand fill above bedrock and below the 19th century surface. This historic reference is critical to the following impact analysis because it shows the depth of fill and provides a scale against which the more recent late 19th and early 20th century basement intrusions can be evaluated.

19TH CENTURY DEVELOPMENTS

Prior to the 1830's, contemporary observers described the vicinity of Union Square as a potters' field which was sprinkled with shacks and "completely neglected until 1831" (Stokes, Vol. 6, p.520). The driving force for the initial development of this area came from the investment efforts of Samuel B. Ruggles, famous in New York history for his efforts to provide open public spaces in the form of parks for the developing urban population. In addition to his efforts to establish a formal park at Union Square, Ruggles was responsible for the construction of the majority of substantial residences along the east side of Union Square, between the years 1838 and 1839. Ruggles moved his family to 24 Union Square in 1839. By 1849, the blocks surrounding Union Square, including the project site, were described as one of the finest residential districts in town. A contemporary guidebook spoke of the area as having "splendid private mansions, some of which are of costly magnificence". (Kouwenhoven 1972:241).

An 1849 perspective view of Union Square, drawn and lithographed by J. Bachman, in the southern portion of Manhattan shows the presence of mansion-like structures on the project site block (Kouwenhoven 1972). This perspective predates the earliest 1853 Atlas map of the block by 4 years and is important as it shows the use of interior block space in a particular open area relative to the then standing structures. This will be used as a baseline for characterizing subsequent alterations to the block. The 1849 view shows a line of four-storey structures facing Union Square, a four-storey building on the southern edge of the block facing 14th Street, a four-storey structure at the corner of Irving Place and 14th Street, and a similar four-storey structure on the northern, 15th Street side, to the west of the location of the later Steinway Building. It also clearly depicts the presence of extensive open backyard areas behind and between

these structures and little or no development in the Irving Place/15th Street area of the block.

Without reviewing the architectural history of each of these post-1850 structural developments, an overview of the changing block composition based on sequential atlas maps (Bromley and Perris) document a changing pattern of consecutively diminishing backyard areas over the next century of the block's occupation. Steinway and Irving Halls were constructed in the open areas at the center of the block and the northeast corner of Irving Place prior to 1867. After these two major structures were in place, the surviving open backyard areas were restricted to two areas of the block. The first of these was a series of irregular triangular backyard areas, situated in a line at the rear of the lots facing Union Square. The second major area of continued but diminishing open backyards was located at the central/eastern end of the block, bounded on the north by the Irving Place Theatre and on the south by Lots 16-20.

LATE 19TH AND EARLY 20TH CENTURY DEEP BASEMENT INTRUSIONS AND IMPACTS

As a prelude to the identification of recent impacts from deep basement construction, it is important to point out that the actual lot designations were undergoing alterations even prior to the Klein Building takeover in 1921. Variations in lot number designations were evident throughout the series of mid-late 19th century atlas sheets. By the 1940's, a number of formerly distinct lot numbers had been merged into larger units with singular number designations. Given this variation through time, this impact evaluation has utilized the most recent architectural site plan and lot boundaries with the inclusion of prior lot numbers which reflect the surviving building department lot designations, as well as additional lot number subdivisions from 19th century atlases.

As itemized on a lot-by-lot basis in the appended summary of building record data, for any one lot, the recorded depths often showed a 1-to-2 foot range of variation from the deepest recorded measurements. In some cases, these variations appear to reflect the sequential lamination of thicker basement floors. In other instances, the recorded variation appears to represent ambiguities as to the point of reference. Some measurements appear to refer to the base of the basement slab, and still others to the depth of the common wall foundation.

A total of 22 lots (see Fig. 3) were examined for evidence of basement depth. Documents were available for a total of 16 lots (Lot numbers 2-8, 12-15, 18-20, 68 and 71). Of these 22 lots, documentary evidence for deep basements between 9-12 feet could be established for 13 lots (Lots 2-5, 12-15, 18-20, 68 and 71). Documentary evidence points to a basement depth of 16' in Lot 8. Where available, the documents indicated shallow basement depths for 2 of the historic lots. As of 1922, Lots 6 and 7 appear to have been merged into one and both appear to contain relatively

shallow basements of 8'6" in front and only 6' in the rear. No documents could be located or appear to exist for 6 of the historic lots (Lots 10, 11, 16, 17, 62 and 63). Repeated attempts to identify their location at the Dept. of Building Records indicate that they have either been misplaced or no longer exist.

Of the 6 lots for which no documentary evidence was available, boring data relative to basement depths exists for 2 of the lots (Lots 17 and 63). Boring data showed basement depths of 13' for both. Neither documents nor boring data were available for 4 lots (Lots 10, 11, 16, 62). Where information is available from both sources, the 2 lines of evidence correlate with and confirm the presence of shallow bedrock immediately below the 10' basement depths. Historical Lots 12-15 merged and became Lots 14 and 68, running through the center of the block between 14th and 15th Streets. Prior to this integration, documentary evidence pertaining to Lot 14 shows 10' deep basement walls "laid on solid rock". The borings taken from below basement floors also confirm the presence of decomposed Manhattan schist throughout many areas of the block immediately below the rubble fill and brick or cement basement floors. These depth indications, furthermore, correlate with the historic geological description in Cozzens, indicating that the area consisted of 10'-13' of sand over bedrock.

As summarized in Figure 3, these two lines of evidence have been combined into a schematic overview of the block which superimposes the documented basement depths with the indicated boring data. This sketch also indicates those lots or backyard areas for which no data was encountered.

DIMINISHING BACKYARD AREAS

This synthesis of boring and documentary evidence clearly demonstrates that the majority of the block had been altered at least by the 1940's to incorporate uniformly deep basements within the boundaries of definable building dimensions. However, in addition to the interior of the structures, two areas of the site consistently showed the survival into the 19th century, of backyard areas which became progressively smaller as a result of building extensions until they were obliterated altogether. Two areas of the site block reflected this pattern, with the exception of two small rear yard areas to be discussed below.

These former rear yard areas were clustered at the western and eastern ends of the site, and will be individually addressed. The western line of former backyard areas indicated by the atlas sheets were consistently located at the rear of the lots facing Union Place (Union Square). These four former 19th century western lot areas were situated behind Lots 2, 4, 5 and 11.

LOT 2:

The northern most of these rear areas was originally a small triangular piece at the rear of Lot 2, which is shown existing on atlas sheets until 1921. As of 1948, this segment was covered over by a 5-storey structure and presumably obliterated by deep basement construction at that time.

LOT 4:

Prior to 1920, the rear of # 10 Union Square was shown to have had a 20'x2[illegible]' backyard area. This was subsequently taken over by a 4-storey building with a recorded basement depth of 12' 4 1/2".

LOT 5:

Sandwiched between the rear of Lot 5 and Lot 71 (the location of the hotel La Clede), was a small 25' triangle which was shown to have been open area as of 1930. After this time, the hotel structure was expanded to absorb this open area and documents record basement depths of 9.1'. Boring #B6 documents that the most recent basement depth within this structure's area was indicated by 12' of destruction debris fill and accordingly, this once open area can be assumed to have been destroyed as well.

LOT 11:

As of the 1880's, Lot 11, which was subsequently absorbed by the Klein building, was shown to have 2 small open areas of between 8-10' on each side, one at the rear of the Lot and one within the structure itself, which presumably functioned as a shaft for air or some other utility. As indicated above, no alteration records were on file for Lots 10 and 11 and none of the borings overlapped with either the former building outline or these two small squares of open area. However Lot 8, immediately to the west of Lot 11 shows documented basement depth of 16' as of 1907. In addition, two borings in Lot 8 show rubble fill to 13 and 15 feet. On the eastern side of Lot 11, the Steinway Hall lot, running the width of the block between 14th and 15th Streets (Lot 14) has documented basement depths from borings and other documents of between 10' and 12'. Based on the demonstrated existence of deep basements on all sides of Lots 10 and 11, it appears highly unlikely that the former exposed areas within and behind Lot 11 may have survived the subsequent site alteration and construction activities.

In addition to these former backyard areas in the western Irving Place end of the block, by the 1920-1943 era, only two,open areas could be demonstrated for the eastern and central part of the block immediately behind the Irving Place Theatre, Lot 63. Parallel with the rear wall of this large structure on the corner of Irving Place and 15th Street, the 20th century atlas sheets showed the existence of a 66'x7' rectangle, designated as courtyard. This 462 sq. ft. area was not covered by any documentary evidence, but does coincide with the location of

boring #7. This boring indicated the presence of an 8" cement slab ranging in depth between 11' and 12' below present grade. Based on the boring data alone, it appears that this former open rectangle was probably cut down below 19th century levels by recent construction activity associated with the Irving Place Theatre.

Finally, the only other open air and possible backyard area indicated by historic maps and shown to still exist as a rear yard area in the 20th century was located at the rear of Lot 16 and the southwest corner of the Irving Place Theatre. This rectangular yard measuring 29'x24' on either axis of the "L" and 6.5' wide, was not covered by any documentary evidence and is the only area in the site plot aside from the rear areas of 6 & 7 which may possibly contain some high ground relative to the surrounding deep basements. It was still shown as a 360 sq. ft. area on the 1984 demolition site plan. Immediately south of this small "L" shaped yard area, the plans show a one-storey, 19'x21' former structure. No documents or borings were available for this parcel.

The final parcel or lot on the block for which no data was available was Lot 62, or #3 Irving Place, situated in the center of the block, between the Irving Place Theatre and Lot 20 on Irving Place. Although no building records relating to Lot 62 (3 Irving Place) were available, it is clear from the multi-year review of the mid-late 19th century atlas sheets that this parcel contained standing structures at least as early as 1853. The 1853 atlas showed the presence of a contiguous brick and frame structure of unspecified elevation. By 1877, this parcel contained a rectangular, three-storey brick structure with no gaps between the Irving Hall building to the north and a five-storey brick structure on the corner of 14th Street and Irving Place, with no open spaces evident on any parcels facing Irving Place.

As of January 22, 1985, this and adjacent brick buildings are still standing in Lots 18-20, and extending back to the rear wall of the former Irving Hall with no open spaces for Lots 18, 19, 20 or 62. Thus, although mid-19th century atlas sheets showed an open space on Irving Place between Lots 20 and 62, by the late 19th century, this area had been altered by the addition of contiguous 3-storey and higher brick buildings.

SUMMARY OF RESULTS

A summary of historic documentary and early map sources indicates that in the 18th century, the project area was open farmland without any indications of structures or occupation. The first evidence of possible habitations becomes available through the 1811 Randel farm map, which shows the pre-grid street layout, the number of parcels and the general location of former structures.

Geological and contemporary descriptions document that this area was filled with sand and gravel sometime in the first quarter of the 19th century. These geological sources also indicate that subsequent to the filling operation, the 19th century ground surface was 10'-13' above bedrock. Despite the indications of mid-19th century rear yards on the atlas sheets, the utility of these maps was invalidated for the later period by subsequent deep basement construction between the end of the 19th century and the early 20th century. The depth of these subsequent basement intrusions which cut through the earlier deposits and appears to have cut away most rear yard areas, were accurately recorded in detail on a lot by lot basis and were on file at the New York City Department of Building Records. Where records exist, these recent documents demonstrate a predominant pattern of deep basement construction down to varying depths of 10'-13' below grade.

Aside from Lots 6, 7, 10, 11, 16 and 62, documents and/or boring data indicate the presence of deep basements and demolished rear yard areas for 16 of the 22 lots. In addition to these recent impacts, and combined with the documentary indications of the early 19th century site matrix consisting of re-deposited secondary sand and gravel fill, even if this small area survived as high ground, it appears highly unlikely that any primary undisturbed occupation surfaces or archaeological deposits with integrity could have survived the documented 20th century deep basement construction within these 16 lots.

Where documents were available recording the depths of the basements, only two, Lots 6 and 7, show indications of having relatively shallow basements in their rear sections. These are 3'-10' higher than the surrounding 9'-16' basement depths. No borings were available for these two areas to confirm or corroborate the accuracy of these documentary indications.

Based on this synthesis of available documentary evidence and boring results, it has been possible to demonstrate that most 19th century construction involved the addition of deep basements throughout the majority of the lots of the block. Where deep basements have been documented, both the presence and integrity of any former deposits have most probably been destroyed or heavily disturbed. Based on the demonstrated depth of the basement construction, the need for additional testing or work is not indicated. For those areas where no documentary or boring data is available, no determination of either the presence or possible integrity of any resources can be made.

SOURCES - MAPS

Manatus Map - 1639, with corrections added from Stokes' Iconography.

Ratzer - 1766-1767

B. Taylor & J. Roberts - 1796

Bridges Map - 1807 - Commissioned by City of New York

John Randel's Farm Map - 1811

The Blue Book - Maps of Farms - 1815

Goodrich Plan - 1827

Map of New York - 1782 (John Hills)

Rochambeau, Collection of Manuscripts

Foundation Conditions of Borough of Manhattan

Plan of the City of New York - English period - 1750-1775

Gaines Universal Register - 1775

New Metropolis Memorable Events of 3 Centuries 1600-1900 - E. Idell, 1899.

The Columbia Historical Portrait of New York - An Essay in Graphic History - John A. Kouwenhoven, 1972.

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Sanborn Manhattan Landbook - 1983-84

The Iconography of Manhattan Island (1498-1909), Stokes, Isaac Newton Phelps (1867-1944) 1915 (Vol. 1-6), Redraft of Castello Plan of Nieuw Amsterdam in 1660 (1916).

Perris Atlas, 1853, Vol. 4, Plate 52.

Perris Atlas, 1877, Plate 44.

Block Index Map - Indices and Conveyances - the City of New York, September 7, 1916, Vol. 97.

Robinson and Pidgeon Atlas, 1880, Vol. III

SOURCES - MAPS/PICTURES cont'd.

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Geology of the City of New York, Cozzens, Issachar, 1843

History of the City of New York, 1853, Valentine, David Thomas

History of Broadway, New York, 1864, Valentine, David Thomas

New York City Common Council, Valentine, David Thomas, Vol. I and II, 1841-42, Vol. I

Union Square Street Revitalization, January, 1976

New York City Department of Topography

New York City Department of Buildings

Municipal Archives (Tweed Archives)

Surrogate Court

New York Historical Society

New York Public Library

BORING DATA - UNION SQUARE EAST PROJECT

BORING #	SAMPLE #	DEPTH (IN FEET)	DESCRIPTION
6	2	5-7	same as above
6	3	10-12	Coarse brown sand with brick and wood fragments, 4 metal caps, 2 look modern, ie galvanized steel
6	4	14-15	grey brown coarse sand
9	1	0-2	Brown fine sand with brick and wood chips
9	2	5-7	same as above
9	3	10-12	Brown medium sand
9	4	15-17	coarse brown sand with pebbles
9	5	20-20.5	coarse brown sand
10	1	0-2	Fine brown sand with brick and wood chips
10	2	5-7	Medium brown sand with brick and wood chips
10	3	10-12	same as above
10	4?	12-14	decomposed micaceous schist
10	3?	14-15	micaceous schist (Manhattan schist)
B11	1	0-2	reddish brown coarse sand with brick and wood fragments
B11	2	5-7	same as above
B11	3	10-12	brown med. sand with wood fragments
B11	4	12-14	decomposed micaceous schist
B11	5	14-16	brown micaceous silt
B11	3	10-12	same as 3 above

BORING DATA - UNION SQUARE EAST PROJECT

BORING #	SAMPLE #	DEPTH (IN FEET)	DESCRIPTION
B11	4	12-14	same as 4 above
B11	5	14-16	same as 5 above
B12	1	0-2	reddish brown coarse sand with brick and wood fragments plus 2 frags of roofing slate
B12	2	5-7	reddish brown coarse sand with brick, wood, roofing slate and mortar frag with green paint
B12	3	10-12	grey brown coarse sand
B12	4	15-17	same as above
B12	5	20-22	same as above
B13	1	0-2	reddish brown med sand with brick and wood fragments
B13	2	5-7	same as above
B13	3	10-12	reddish brown coarse sand with brick and wood frags
B13	4	15-17	Manhattan schist frags
B24	1-2		empty
B24	3	18-21	decomposed micaceous schist
B25	1	0-2	reddish brown med. sand with brick and wood chips
B25	2	5-9	same as above
B25	3	9-10	coarse brown sand w/ wood chips and brick frags
B25	4	10-12	coarse brown micaceous sand with brick frags
B25	5	12-14	same as above
B25	6	14-16	same as above

UNION SQUARE EAST PROJECT

BORING #	DEPTH (IN FT)	ANALYSIS
10	12-14	micaceous schist, culturally sterile
10	14-15	same as above, sterile
11	10-12	micaceous silty sand, brick and wood frags, sterile
11	12-14	micaceous schist sterile
11	14-16	same as above

Micaceous schist: Munsell 10YR4/6, Strong Brown

BLOCK 870

LOT No.	STREET ADDRESS	DATE OF DOCUMENT	LOT DIMENSIONS	BUILDING DIMENSIONS	BACKYARD DIMENSIONS	BASEMENT DEPTHS	OCCUPATION USAGE	STRUCTURAL COMMENTS	WALLS	CITATIONS
2	14-18 Union Sq	7/23/1888	95'8" x 44'2" y	95'8" y 44'2"		10' foundation walls 2'4" thick of stone ground surface / hard	UNION SQ HOTEL	Brick foundation	upperwall brick 16" thick 120' deep 78' height	MICROFICHE
2	14-18 UNION SQ	7/16/1913		100' y 123' x 6 stories						MICROFICHE
2	SE Corner 15th St	1931				8'1" ceiling [illegible]	NEW UNION SQ HOTEL			MICROFICHE
2	14-18 Union Sq	1953	Slope 4'-1'		Soil sand [illegible]	"On ground"				Microfiche
2	14-18 Union Sq.	1957				"on ground"				[illegible]
2	15th St Union Sq	1931				11'6" [illegible]				Microfiche
2	[illegible] Union Sq	7/6/[illegible]			Soil [illegible]			[illegible] wall in cellar		Microfiche
2	15th St Union Sq	4/25/1960		[illegible] 8" drain undervault wood + concrete floor removed	Soil sand + gravel					microfiche
2	14-16 Union Sq	7/7/1929			Soil, hard dry clay	basement floor [illegible]		foundation brick [illegible] street level		Microfiche

BLOCK 870

LOT No.	STREET ADDRESS	DATE OF DOCUMENT	LOT DIMENSIONS	BUILDING DIMENSIONS	BACKYARD DIMENSIONS	BASEMENT DEPTHS	OCCUPATION USAGE	STRUCTURAL COMMENTS	WALLS	CITATIONS
2	18 UNION SQUARE 100 E 15th St.	1916, Sept. 7	123'x 43'10" 26'2"x 71'x 22'1"							BLOCK INDEX MAP - BLOCK 870 VOL. 97 (866-872
2		1877					UNION SQ. HOTEL			BERRIS PLATE 49 1877
2	102 E 15th St. 100 E 15th St. 14-16 UNION SQUARE	1932 FEB. 18				12' to bottom of footing	UNION SQ. HOTEL			MICROFICHE
2		1924 JUNE 5	123'x 43'.10" 80'x 71'x 24'4"							Microfiche
2		1879					UNION SQ HOTEL			DRIPPS
2		1871					UNION SQ HOTEL	BRICK FACADE		BROMLEY
2	16 UNION SQ	1879		6 STORIES			UNION SQ HOTEL	BRICK FACADE		BROMLEY
2	16-18 UNION SQ	1920		6 STORIES			UNION SQ HOTEL	BRICK FACADE	ELEVATOR	BROMLEY
2	16-18 UNION SQ	1984		6 STORY			STORE		ELEVATOR	SANBORN
2	100-102 E. 15th St.	Sept. 13, 1951	123'(E) x 44'.6"(S) x 26'2" (E) x 68'11" (E) x 71'(N) x 24'4"(N)	6 STORY			STORE + OFFICE S. Klein			MICROFICHE
2	100-102 E. 15th St. 14-16 UNION SQ	6/30/1949	123' x 43'3" x 123'	6 STORY		11'7" + sump 1' = 12'7"	STORE + OFFICE			Microfiche

BLOCK 870

LOT No.	STREET ADDRESS	DATE OF DOCUMENT	LOT DIMENSIONS	BUILDING DIMENSIONS	BACKYARD DIMENSIONS	BASEMENT DEPTHS	OCCUPATION USAGE	STRUCTURAL COMMENTS	WALLS	CITATIONS
3	10-12 UNION SQ	1929				10' 11", 12' 4½", 9' 6"				MICROFICHE
3	10-12 UNION SQ	1929				11' 1½", 12' 4½"		alterations		MICROFICHE
3	10-12 UNION SQ	1940				9' 1"	Store			MICROFICHE
3	102-106 East 15th St 10-12 UN SQ	OCT. 29 1940				10' 1" vault [illegible]	Sidewalk [illegible] basement & vault support	alterations to [illegible] [illegible]		MICROFICHE
3	10-12 UNION SQ	1947				9' 7"	CONSOLIDATED ED. CO OF NY	Vault under sidewalk		MICROFICHE
3	12 UNION SQ	1899		4 STORIES w/ BASEMENT	SOME YARDS			BRICK FACADE		BROMLEY
3	12 UNION SQUARE	1920		4 STORIES w/ BASEMENT 2 STORY REAR 1 STORY [illegible]	NO YARDS		STORE	BRICK FACADE		BROMLEY
3	12 UNION SQUARE	1984		5 STORY			STORE			SANBORN
3-4	10-12 UNION SQUARE	6/5/1953	95' E) / 75' 6" S) / 25' 2" W / 13' 3" / 25' / 96' 11" S) / 11' N / 63' 11" E) / 30' 6" E) / 43' 3" N	7 STORIES			[illegible]			

BLOCK 870

LOT No.	STREET ADDRESS	DATE OF DOCUMENT	LOT DIMENSIONS	BUILDING DIMENSIONS	BACKYARD DIMENSIONS	BASEMENT DEPTHS	OCCUPATION USAGE	STRUCTURAL COMMENTS	WALLS	CITATIONS
4	100 E 15th Street	1905				8' ARCHES UNDER BLDG SUPPORT FOUNDATION	STORE	ARCH SUPPORTS (CAST IRON)		MICROFICHE
4	10 UNION SQUARE	1899		4 STORIES W/ BASEMENT	SOME YARD			BRICK FACADE.		BROMLEY
4	10 UNION SQUARE	1920		4 STORIES W/ BASEMENT 50' DEEP LOT	NO YARD 2 STORY BLDG EXTENSION NO BASEMENT?		STORE	BRICK FACADE		BROMLEY
4	10 UNION SQUARE	1984		5 STORY W/ STORE			STORE			SANBORN

BLOCK 870

LOT No.	STREET ADDRESS	DATE OF DOCUMENT	LOT DIMENSIONS	BUILDING DIMENSIONS	BACKYARD DIMENSIONS	BASEMENT DEPTHS	OCCUPATION USAGE	STRUCTURAL COMMENTS	WALLS	CITATIONS
5	8 UNION SQ	1929				9'6"				MICROFICHE
5	8 UNION SQ	1932				8'0"				MICROFICHE
5	8 UNION SQ	1899		6 STORY	SMALL YARD ◁			BRICK FACADE		BROMLEY
5	8 UNION SQ	1920		5 STORY	SMALL YARD ◁		UNION SQ HALL	BRICK FACADE		BROMLEY
5	8 UNION SQ	1984		5 STORY						SANBORN

BLOCK 870

LOT No.	STREET ADDRESS	DATE OF DOCUMENT	LOT DIMENSIONS	BUILDING DIMENSIONS	BACKYARD DIMENSIONS	BASEMENT DEPTHS	OCCUPATION USAGE	STRUCTURAL COMMENTS	WALLS	CITATIONS
6			11'x95'x 93.9'				HOTEL			
6 (& 7)	6 UNION SQ	1922	[illegible]	4 stories		6'0" "excavate cellar"	STORE 4 story	Extension in rear		MIROFICHE

BLOCK 870

LOT No.	STREET ADDRESS	DATE OF DOCUMENT	LOT DIMENSIONS	BUILDING DIMENSIONS	BACKYARD DIMENSIONS	BASEMENT DEPTHS	OCCUPATION USAGE	STRUCTURAL COMMENTS	WALLS	CITATIONS
8	2 UNION SQ	1907	APPROX 65' X 23' 52'	LOT FOUNDATION WALLS 20" wide		16' NEW EXCAVATION "earth below and all around"		EXTENSION OF FOUNDATION TO LOT BOUNDARIES	NEW FOUNDATION WALLS 20" THICK BLUE STONE FILL	MICROFICHE

BLOCK 870

LOT No.	STREET ADDRESS	DATE OF DOCUMENT	LOT DIMENSIONS	BUILDING DIMENSIONS	BACKYARD DIMENSIONS	BASEMENT DEPTHS	OCCUPATION USAGE	STRUCTURAL COMMENTS	WALLS	CITATIONS
14	108 E. 15th St. Between Steinway Hall and Hotel Dam	5/3/1884	24'X24'X 100'	24'X24'X 27' 4 STORIES		FOUNDATION WALL 10' deep FOUNDATION WALL 24" thick MATERIAL - STONE	OFFICES and DRESSING ROOMS for STEINWAY HALL	BRICK FACADE		MICROFICHE
14	108 E 15th st, Between Steinway Hall & Hotel Dam	5/3/1884	24'X24'X 100'	24'X24'X 32' 8 stories		FOUNDATION WALL EXTENSION - BRICK 10' deep 24" thick all foundation laid on Solid Rock	ARTIST STUDIOS	ALTERATIONS TO ABOVE BLDG (1924's)		MICROFICHE
14	South side of E. 15th St 90½' E. of 4th AVE (108)	6/26/1907	25'X25'X 100'	25'X25'X 100' 7 STORIES		11'0" below curb level (BRICK) foundation walls front - 24" rear - 24" side - 2'4" party - 20"	PIANO WAREROOMS STEINWAY & SONS			MICROFICHE
14	105-109 E 14th st 103-119 E. 19th Street	7/4/1925	93'1½" X 98'10" X 206'6"	2 BUILDINGS ON LOT 6-7 STORIES		10' Below Curb Foundation on Rock built of Concrete	STORE + SALES ROOM + factory purposes SIKLEIN.	BRICK FACADE		MICROFICHE

BLOCK 870

LOT No.	STREET ADDRESS	DATE OF DOCUMENT	LOT DIMENSIONS	BUILDING DIMENSIONS	BACKYARD DIMENSIONS	BASEMENT DEPTHS	OCCUPATION USAGE	STRUCTURAL COMMENTS	WALLS	CITATIONS
14	108-112 E. 15th St.	6/16/1925		4-5 stories		12.0' & 10'7½"	S. KLEIN			MICROFICHE
14	114 E. 15th St.	6/16/25		6-7 STORIES		19'6" + 10'9" & 9'8"	S. KLEIN			MICROFICHE

BLOCK 870

LOT No.	STREET ADDRESS	DATE OF DOCUMENT	LOT DIMENSIONS	BUILDING DIMENSIONS	BACKYARD DIMENSIONS	BASEMENT DEPTHS	OCCUPATION/ USAGE	STRUCTURAL COMMENTS	WALLS	CITATIONS
18	115 E. 14th St.	5/8/1893	40'x 40'x 100'	40' y 90' y 80' 5 STORIES		foundation walls 8' Brownstone & STONE 20' thick(?)	STORE	BRICK + STONE FACADE		MICROFICHE
18	115 E. 14th St.	2/6/1942					RESTAURANT			MICROFICHE
18	117 E. 14th St.	3/8/1899	25' y 25' y 100'	25' y 25' y 83' 4 stories		foundation walls 10' y 20" BLUE STONE	STORES & HOTEL	BRICK FACADE		MICROFICHE
3-19	115+117 E. 14th St.	10/26/1911	25' y 25' y 131'6" 25' y 25' 121'6"	50' y 50' y 65' 5 STORIES incl. Basement		foundation retaining curb 10'0" y 24" STONE ?	HOTEL & STORES	BRICK GROUND STONE FACADE		MICROFICHE
18	115-117 E 14th St 3 IRVING PLACE	7/17/1935	75'0" x 131'4" x 50'2" y 103'3" y 25'2" y 28'1"							MICROFICHE
18		9/29/1957					HORN + HARDART AUTOMAT RESTAURANT			MICROFICHE
18	115-117 E. 14th ST.	5/16/1977	103'3" y 75' y 28'3" y 75' y 121'6" y	2 BLDGS 50 x 131'6" 2 STORIES			RESTAURANT OFFICE			MICROFICHE

BLOCK 870

LOT No.	STREET ADDRESS	DATE OF DOCUMENT	LOT DIMENSIONS	BUILDING DIMENSIONS	BACKYARD DIMENSIONS	BASEMENT DEPTHS	OCCUPATION USAGE	STRUCTURAL COMMENTS	WALLS	CITATIONS
18	117 E. 14th ST	8/9/1877		2 STORES 19'0" X 63'0"		10' 0"	STORE			MICROFICHE
3-19	115-117 E. 14th ST.	11/15/1917	131'6" X 25' (W) X 10' (N) X 25' (W) X 131'6" (S) Y 50' E) Building covers entire lot 131'6" by 50'	50' Y 131'6" X 50' Y 131'6" 4 STORIES 2 STORIES		10'	WAREHOUSE + LIVING QUARTERS TO Restaurant & Offices	Demolish small building in rear of lot... excavate basement for rear walk space, front walls & partial side walls to basement.		MICROFICHE

BLOCK 870

LOT No.	STREET ADDRESS	DATE OF DOCUMENT	LOT DIMENSIONS	BUILDING DIMENSIONS	BACKYARD DIMENSIONS	BASEMENT DEPTHS	OCCUPATION USAGE	STRUCTURAL COMMENTS	WALLS	CITATIONS
20	119 E. 14th St.	1/26/1920	24'8" X 24'8" Y 103'3"	OLD BLDG 5 STORIES 22' X 22' Y 91' 4 stories		10' below Curb STONE FOUNDATION resting on earth	STORES OFFICES NON-HOUSE KEEPING APTS. Restaurant + Bachelor Duplex.	BRICK FACADE	UPPER WALLS BRICK	MICROFICHE
20	119 E 14th STREET	12/19/1928		26'7" Y 26.7" / 13.3" 5 stories			STORES [illegible]			MICROFICHE
20	IRVING PL	10/16/1911				CONCRETE FLOOR TO MUNICIPAL CEILINGS 7'2" BASEMENT	ELEVATOR	VAULT UNDER SIDEWALK (BRICK)		MICROFICHE

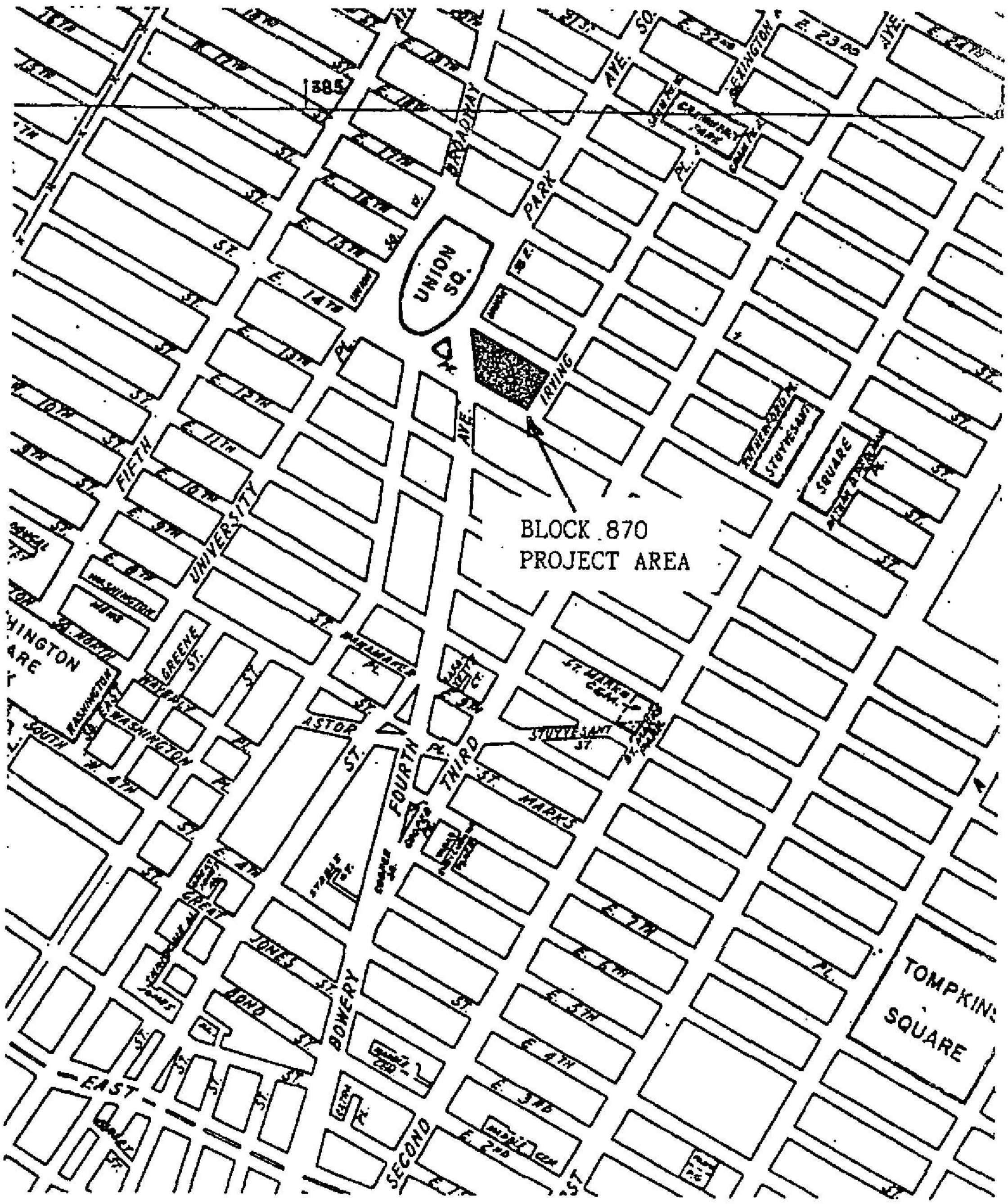
BLOCK 870
PROJECT AREA
385
UNION SQ.
BROADWAY
PARK
AVE.
IRVING
FIFTH
UNIVERSITY
GREENE ST.
ASTOR
FOURTH
THIRD
ST. MARKS
STUYVESANT ST.
JONES ST.
BOND ST.
BOWERY
SECOND
EAST
TOMPKINS
SQUARE

FIGURE 1

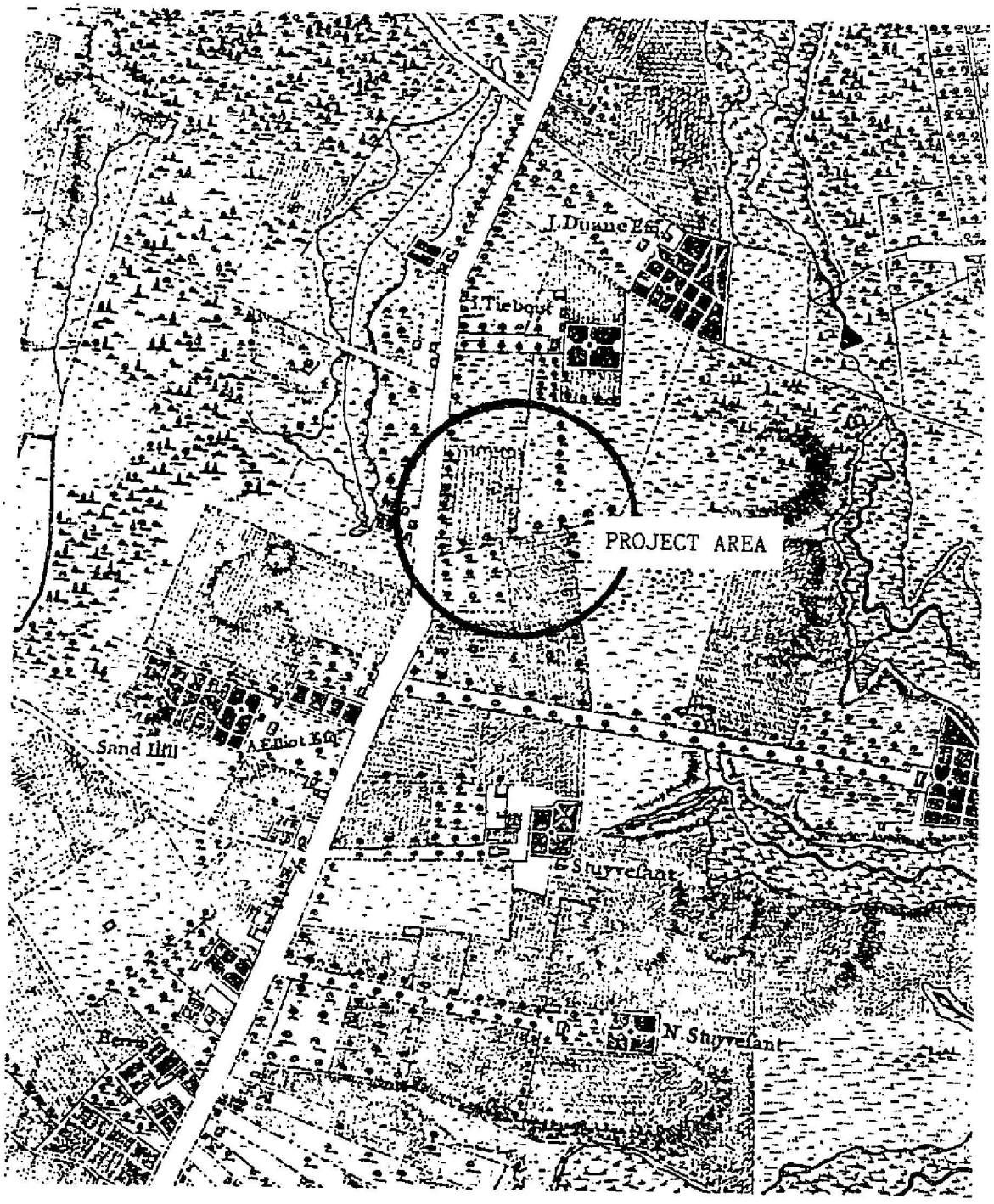

FIGURE 2 ENLARGED PORTION OF RATZER PLAN SHOWING APPROXIMATE LOCATION OF PROJECT AREA

BLOCK 870 SHOWING EVIDENCE FOR BASEMENT DEPTHS BELOW GRADE

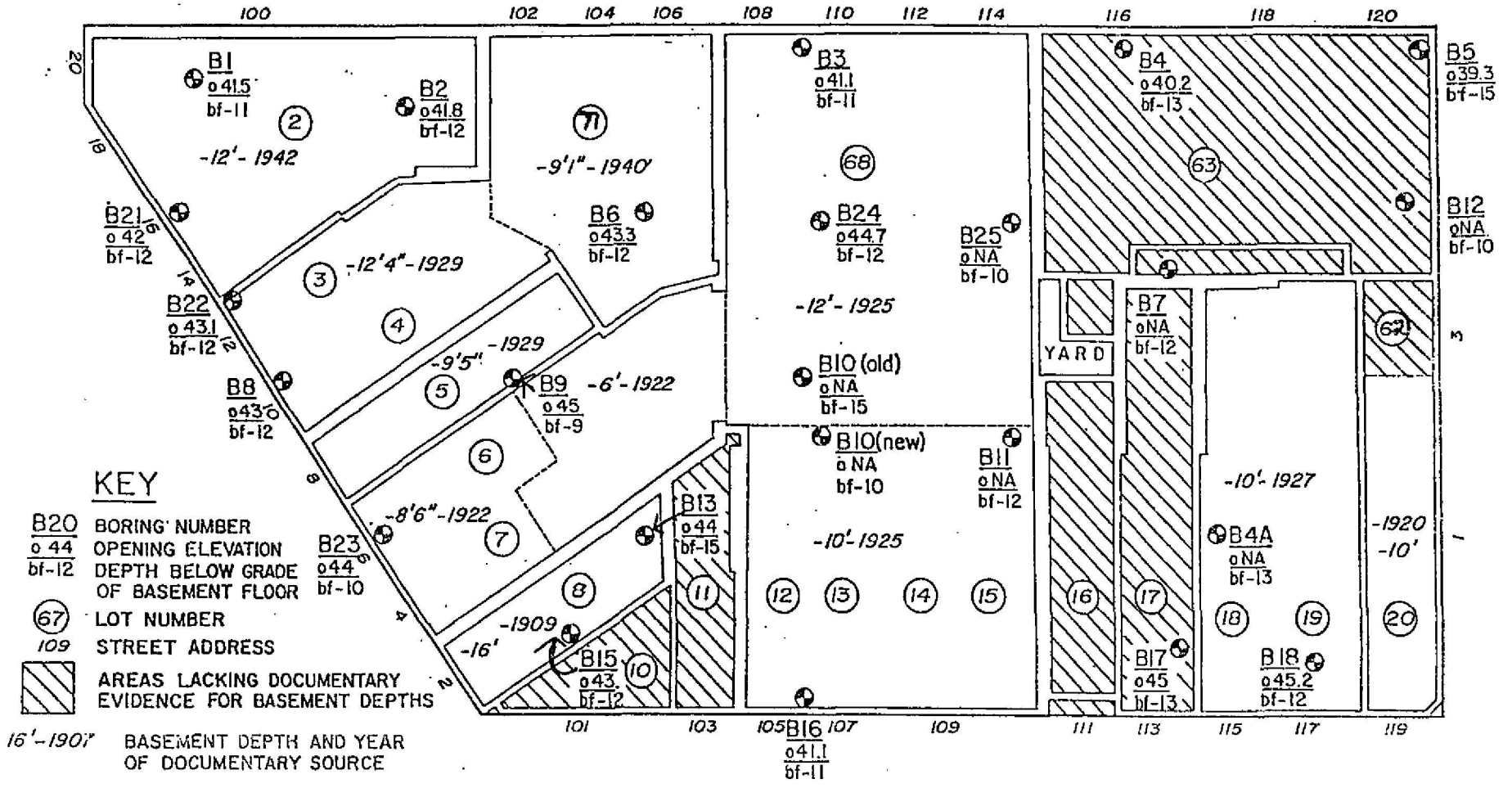

FIGURE 3

RANDEL'S FARM MAP (SEG.)

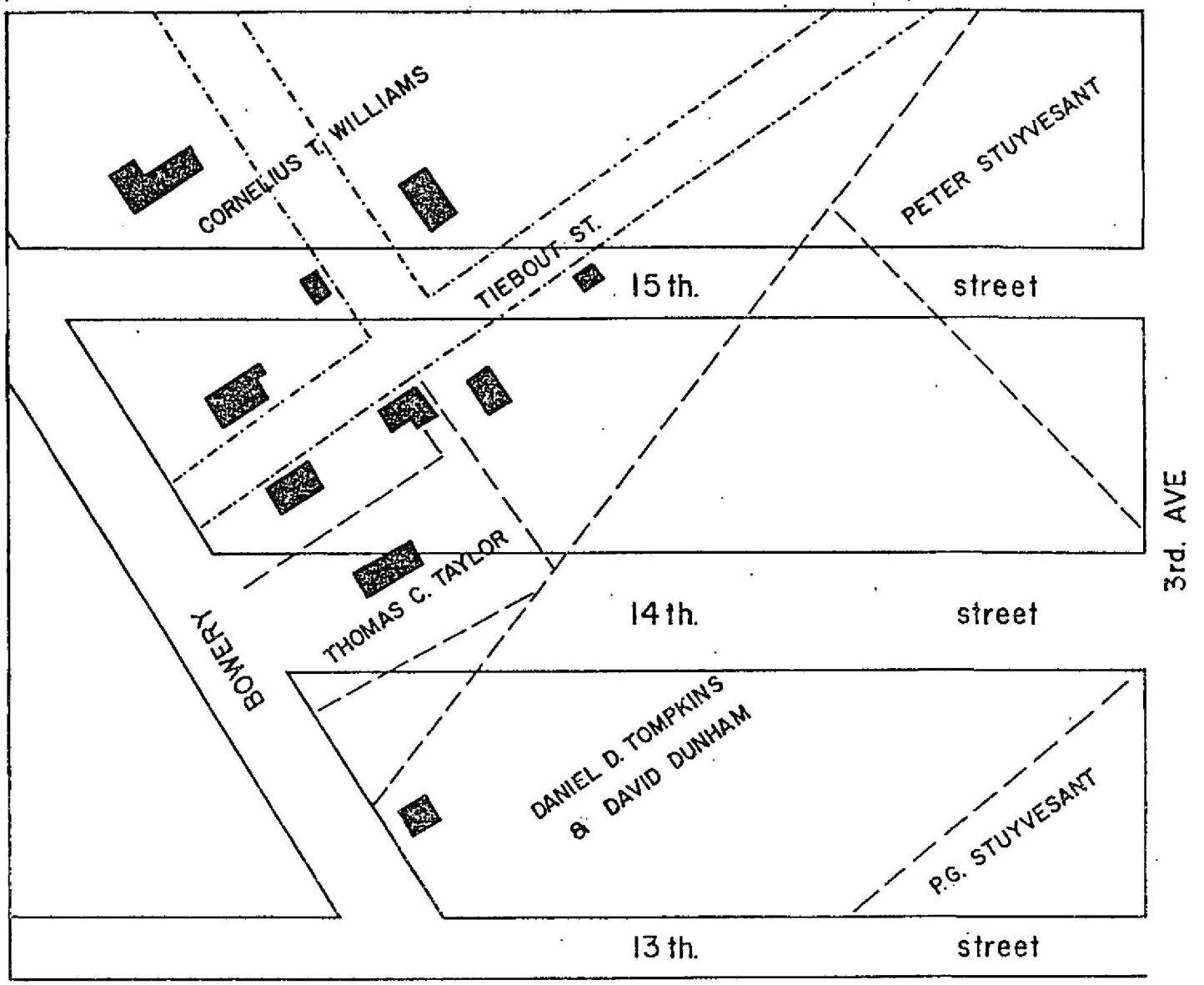

FIGURE 4.

FIGURE 5 SEGMENT OF RATZER PLAN SHOWING LOWER MANHATTAN

February 13, 1985

Dr. Sherene Baugher
Landmarks Preservation Commission
20 Vesey Street
New York, N.Y. 10006

50 Trinity Place
New York, New York
10006/212 514-9520

84-006M

Dear Sherene,

I am writing to you to address the primary points of our telephone conversation of February 13, 1985, and to provide a final assessment for the 14th Street, Union Square East Project Cultural Resource Evaluation. Per our discussion, this final evaluation will address three points: 1) clarifications relative to the few lots for which no documentary or boring data was available, 2) an evaluation concerning the potential survival and significance or research potential of any historic remains which may still be present at this time, and 3) a judgement based on the general patterns encountered from these above sources as to the need for further testing.

The focus of this work has been to address through our impact analysis 1) the potential presence and survival of any remains and 2) their integrity as a basic criteria for determining their significance or research potential. As has been documented, the extensive disturbance throughout most of the block indicates a low probability of survival where data from borings and documents is available. In the case of the three small rear lot areas for which no information is available, the issue is not simply one of presence or absence, but also of stratigraphic and chronological integrity. Given the documented historic indications of extensive cutting and filling throughout the area, particularly within this block prior to the 1830's, even if cultural materials were present, this evidence suggests a high probability of mixing and secondary deposition. These potentially disturbed conditions imply in turn a low probability of integrity, and thus a low probability of research significance, given the nature and time range of cultural activities within the block.

In general, it is clear from the body of evidence presented in our study, that this block can be characterized as follows:

1) Our documentary and cartographic analysis has indicated a lack of any strong evidence for either prehistoric, contact period or early 17th-18th century remains being present. The bulk of the data instead points to the block's major cultural activities in the 19th century.

2) That early geological accounts and views of the area suggest that whatever "early matrix" may be present most likely

represents pre-1800 fill deposits associated with the documented cut and fill activities for this area at that time.

3) With the exception of three lots for which no boring or documentary data exists, this study has demonstrated a generalized pattern of early 20th century deep basement construction for the majority of the lots within the block. Given the documented depth of bedrock, it is also clear from both the documents and boring records that the depth of basement construction was sufficient to have obliterated, removed or heavily disturbed the former sandy matrix which had once overlain the bedrock.

Finally, in reference to your specific comments pertaining to the undocumented rear areas of Lots 6 and 7, Lot 11, and the small L-shaped rear yard area of Lot 16, it is in my judgement unlikely that the extensive 20th century deep basement construction activities on all sides, would not have affected these small segments as well.

In summation, when documentary, boring data and explicit evidence of deep basement intrusions for the majority of the block are combined, it is in my estimation highly unlikely that either early or undisturbed deposits would have survived with integrity until the present. Based on this body of evidence and on the criteria of significance discussed above, I do not recommend additional testing within the block.

Yours Sincerely,

Joel W. Grossman, Ph.D.
Chief Archaeologist

JWG:mw
cc: Edith Fischer; Zeckendorf Corp.
A. Locke; Allee, King, Rosen and Fleming, Inc.
Mr. Howard Goldman; Patterson-Belknap

LANDMARKS PRESERVATION COMMISSION

20 VESEY STREET, NEW YORK, NEW YORK 10007

553-1100

February 22, 1985

Mr. Joseph Ketas, Director
Environmental Management Division
Department of City Planning
2 Lafayette Street
New York, New York 10007

Re: Union Square East

Dear Mr. Ketas:

The archaeologist handling the documentary research required as a condition on the Union Square East project has satisfactorily answered a number of concerns which we expressed regarding his conclusions.

Consequently, we are in agreement that no further documentary work is required and that no archaeological field work is indicated.

Sincerely,

Edwin Friedman

Edwin Friedman
Director of Planning & Field Services

EF/nb