

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

FOR NPS USE ONLY

RECEIVED FEB 29 1980

DATE ENTERED MAY 23 1980

NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORMSEE INSTRUCTIONS IN HOW TO COMPLETE NATIONAL REGISTER FORMS
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS**1 NAME**HISTORIC
Municipal Asphalt Plant

AND/OR COMMON

2 LOCATIONSTREET & NUMBER
Between 90th and 91st Streets at the East River

NOT FOR PUBLICATION

CITY, TOWN
New York

CONGRESSIONAL DISTRICT

19

STATE
New York

VICINITY OF

CODE
036COUNTY
N.Y.CODE
061**3 CLASSIFICATION**

CATEGORY

☐ DISTRICT
☒ BUILDING(S)
☐ STRUCTURE
☐ SITE
☐ OBJECT

OWNERSHIP

☒ PUBLIC
☐ PRIVATE
☐ BOTH
PUBLIC ACQUISITION
☐ IN PROCESS
☐ BEING CONSIDERED

STATUS

☐ OCCUPIED
☒ UNOCCUPIED
☐ WORK IN PROGRESS
ACCESSIBLE
☐ YES: RESTRICTED
☒ YES: UNRESTRICTED
☐ NO

PRESENT USE

☐ AGRICULTURE
☐ COMMERCIAL
☐ EDUCATIONAL
☐ ENTERTAINMENT
☐ GOVERNMENT
☐ INDUSTRIAL
☐ MILITARY
☐ MUSEUM
☐ PARK
☐ PRIVATE RESIDENCE
☐ RELIGIOUS
☐ SCIENTIFIC
☐ TRANSPORTATION
☒ OTHER: vacant**4 OWNER OF PROPERTY**NAME
See Continuation Sheet

STREET & NUMBER

CITY, TOWN
New York

VICINITY OF

STATE
New York**5 LOCATION OF LEGAL DESCRIPTION**COURTHOUSE,
REGISTRY OF DEEDS, ETC. New York County Register, Hall of RecordsSTREET & NUMBER
31 Chambers StreetCITY, TOWN
New YorkSTATE
New York**6 REPRESENTATION IN EXISTING SURVEYS**TITLE
Municipal Asphalt PlantDATE
January 27, 1976☐ FEDERAL ☐ STATE ☐ COUNTY ☒ LOCALDEPOSITORY FOR
SURVEY RECORDS Landmarks Preservation Commission, 305 BroadwayCITY, TOWN
New YorkSTATE
New York

7 DESCRIPTION

CONDITION

—EXCELLENT
☒ GOOD
—FAIR

—DETERIORATED
—RUINS
—UNEXPOSED

CHECK ONE

☒ UNALTERED
—ALTERED

CHECK ONE

☒ ORIGINAL SITE
—MOVED DATE _____

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The Municipal Asphalt Plant, built in 1941-44, was designed by the prominent New York City architects Ely Jacques Kahn and Robert Allan Jacobs for the Office of the Borough President of Manhattan. The asphalt plant originally consisted of the mixing plant--the main building which is still standing--and storage buildings for raw materials which were transported by means of a conveyor to the mixing plant. The parabolic arch form of the mixing plant building, constructed of reinforced concrete, is an exciting visual highlight for motorists traveling along the East River Drive.

Located on the edge of the East River Drive, the building is surrounded by a youth sports and recreational center which is now known as "Asphalt Green." It includes a grass playing field for football, soccer, and softball, and outdoor basketball courts. Asphalt Green is just north of Carl Schurz Park which contains Gracie Mansion, the official residence of the Mayor of New York. The immediate area is predominantly residential with both large apartment buildings and groups of lower-scaled row houses.

The building consists of four arched ribs spaced 22 feet apart centers, each rising to a height of 84 feet 6 inches at the intrados and with a clear span of 90 feet, supporting a series of barrel vaults constructed of concrete panels. The side walls are pierced by steel sash windows about a third of the way up the walls. Originally the architects had planned to use conventional formwork to pour the concrete; this would have made it impossible to install the equipment before completion of the concrete work and also would have been slow and expensive. At the suggestion of the contractor, structural steel ribs served as both form and reinforcement; this centering was worked out as an integral part of the rib, eliminating the majority of reinforcing bars. The steel ribs, reinforced by light angle trusses, were prefabricated in three sections and shipped to the site for erection. Concrete was poured simultaneously from both sides, maintaining balanced pressure on the exposed steel framework. The end walls were stiffened by vertical members supported on horizontal girders, one of which forms part of the projecting canopy which shelters the entrance.

Three complete sets of asphalt mixing equipment were installed in the plant, set between the arched ribs. Many automatic mixing controls, complete electric heating to keep the liquid asphalt from congealing, automatic thermostatic controls, and a dust collecting system were among the advanced features of the system. Plant operations ceased in 1968, and the mixing equipment has been removed. The interior is currently empty but plans are underway to turn the building into a community sports center to be known as Asphalt Green. The entire piece of land on which the Asphalt complex stood is being nominated. It provides a setting for the structure and is all part of the new Asphalt Green plan.

FHR-8-300A
(11/78)

UNITED STATES DEPARTMENT OF THE INTERIOR
HERITAGE CONSERVATION AND RECREATION SERVICE

FOR HCRS USE ONLY

RECEIVED FEB 29 1980

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MAY 23 1980

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

Municipal Asphalt Plant
New York, New York County

CONTINUATION SHEET

ITEM NUMBER 4

PAGE 1

Department of Real Estate /
2 Lafayette Street
New York, NY 10007

Contact: Mr. Perry Soskin, Acting Deputy Commissioner

NYC Department of General Services Administration
1800 Municipal Building
New York, NY 10007

Contact: Jeremiah Walsh, Acting Commissioner

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW			
☐ PREHISTORIC	☐ ARCHEOLOGY-PREHISTORIC	☐ COMMUNITY PLANNING	☐ LANDSCAPE ARCHITECTURE	☐ RELIGION
☐ 1400-1499	☐ ARCHEOLOGY-HISTORIC	☐ CONSERVATION	☐ LAW	☐ SCIENCE
☐ 1500-1599	☐ AGRICULTURE	☐ ECONOMICS	☐ LITERATURE	☐ SCULPTURE
☐ 1600-1699	☒ ARCHITECTURE	☐ EDUCATION	☐ MILITARY	☐ SOCIAL/HUMANITARIAN
☐ 1700-1799	☐ ART	☒ ENGINEERING	☐ MUSIC	☐ THEATER
☐ 1800-1899	☐ COMMERCE	☐ EXPLORATION/SETTLEMENT	☐ PHILOSOPHY	☐ TRANSPORTATION
☒ 1900-	☐ COMMUNICATIONS	☐ INDUSTRY	☐ POLITICS/GOVERNMENT	☐ OTHER (SPECIFY)
		☐ INVENTION		

SPECIFIC DATES 1941-44

BUILDER/ARCHITECT

Ely Jacques Kahn and
Robert Allan Jacobs

STATEMENT OF SIGNIFICANCE

The Municipal Asphalt Plant was an innovative and radical design when built--the first of its kind in the United States. The reinforced concrete construction is admirably suited to the parabolic arch form of the building.

This plant replaced another asphalt plant on the site which had opened in 1914 to produce asphalt for the streets of Manhattan. The site on the East River at 91st Street had been originally selected because it provided a waterfront location near the geographical center of the borough, thus minimizing the trucking of raw materials through the streets. By the late 1930s, the original asphalt plant was outmoded. The character of the surrounding neighborhood had changed from semi-commercial to residential, but the location was still felt to be the most appropriate site for a new asphalt plant. A new facility, planned as part of a project to upgrade the East River Drive, was initiated by Borough President Stanley M. Isaacs. Although it was to be an industrial structure, a standard industrial design was not desired; the Borough President wanted the new Municipal Asphalt Plant to be given an architectural treatment that would blend harmoniously with the East River Drive and the residential developments in the vicinity. The internal design and arrangement of the machinery was planned by the Department of Borough Works of the Office of the Borough President of Manhattan. This design was presented to architects Ely Jacques Kahn and Robert Allan Jacobs who felt that the parabolic arch of the mixing plant was the most efficient form to house the plant equipment.

Ely Jacques Kahn (1884-1972) and Robert Allan Jacobs (b. 1905), who formed the partnership of Kahn & Jacobs in 1940, became noted for their commercial, industrial, and institutional structures. Building upon European precedent, they were leaders among American architects who introduced new architectural forms to this country. As a result of his work under Le Corbusier in Paris in 1934-35, Jacobs had acquired a breadth of experience which he imaginatively adapted to American requirements.

The unusual form of the mixing plant building of the Municipal Asphalt Plant was made possible through the use of reinforced concrete, still at that time a somewhat novel building material in the United States. Although

9 MAJOR BIBLIOGRAPHICAL REFERENCES

See attached sheet

UTM NOT VERIFIED

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY less than 1 acre

ACREAGE NOT VERIFIED

UTM REFERENCES

A 1 8 5 8 9 1 0 0 4 5 1 4 4 6 0
ZONE EASTING NORTHING
C

B
ZONE EASTING NORTHING
D

VERBAL BOUNDARY DESCRIPTION

The nominated property occupies Borough of Manhattan Tax Map Block 1587, Lot 1 in part; bounded on the south by East 90th Street; on the west by York Avenue; on the southeast by the East River Drive; and on the northwest by the roadway ramp over the East River Drive. (See attached maps, 1944 and Asphalt Green plan.)

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE

Contact: Elizabeth Spencer-Ralph
(518) 474-0479

Marjorie Pearson, Director of Research

ORGANIZATION
Landmarks Preservation Commission

DATE
October 5, 1978

STREET & NUMBER
305 Broadway

TELEPHONE
566-7577

CITY OR TOWN
New York

STATE
New York

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL X

STATE

LOCAL

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

Alfred W. Mark

TITLE Director, Historic Preservation Field Services Bureau

DATE 2/20/80

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
ATTEST: *[Signature]*

DATE 5/23/80

DATE 5/2/80

KEEPER OF THE NATIONAL REGISTER

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

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NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORM

CONTINUATION SHEET Municipal Asphalt Plant ITEM NUMBER 8 PAGE 2

experiments were made with the material in the second half of the 19th century in England, France, and the United States, it did not come into widespread use until the 20th century. Buildings by Frank Lloyd Wright in the United States and by Auguste Perret and Toni Garnier in France utilized reinforced concrete in new ways and for new building types early in the 20th century. Despite such pioneering examples, reinforced concrete was not in general use in the United States until World War II, partially because of the expense and difficulty of erecting the necessary formwork for concrete casting. Due to the high price of structural steel during World War II, reinforced concrete became a more competitive building material. Jacobs had become aware of the varied uses of this material while working for Le Corbusier in France. The dirigible hangars at Orly, designed by Eugene Freyssinet in 1916, were studied by Jacobs during his year in France and provided precedent for the Municipal Asphalt Plant in form, although not in exact construction technique.

The parabolic arch form used in the Municipal Asphalt Plant reduces bending stresses to a minimum and thus requires less steel reinforcement, making the use of such arch rib construction economical both in material and in construction of formwork. Francis S. Onderdonk, Jr., in The Ferro-Concrete Style describes the special qualities of the parabolic arch in these words: "The parabolic arch is characteristic of Ferro-concrete which in its absolute freedom to accept any form is well adapted to the ever changing curvature of the parabola. The parabola in turn expresses the monolithic quality of reinforced concrete by merging sides and top in one unbroken curve." The parabolic arch form in reinforced concrete has been most often used for hall-type structures and bridges, but it can also be admirably adapted to industrial structures as the Municipal Asphalt Plant which require large amounts of open, unobstructed interior space.

The arched form of the mixing plant caused considerable controversy when it was under construction. Robert Moses, then Parks Commissioner, derided it as a "Cathedral of Asphalt." The structure was warmly defended in the New York Times by Walter D. Binger, Commissioner of Borough Works, who claimed responsibility for accepting the design. Other letters in the Times objected to the siting. Despite such negative reactions, the design was acclaimed by the Museum of Modern Art when it was exhibited in the show "Built in the U.S.A. 1932-1944" in the spring of 1944. The Municipal Asphalt Plant was also published in the March 1944 issue of Architectural Forum and praised for its functionalism. Dedication ceremonies for the plant were held on May 24, 1944; Mayor Fiorello LaGuardia stressed the value of the plant both for its current use and as a part of post-war planning.

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Municipal Asphalt
CONTINUATION SHEET Plant ITEM NUMBER 8 PAGE 3

Robert Allan Jacobs, who was responsible for the design, gave a detailed description of the construction of the mixing plant in Architectural Concrete (vol. 9, no. 2, 1943). He stated that novelty was not the basis for the design. The architects began with the idea of a conventional rectangular building for the mixing plant, but a study of the equipment layout revealed that a parabolic curve would be the most economical form, since a rectangular structure would have resulted in a large volume of unused space in the upper portion of the building, and would have required interior columns which would have interfered with the plant operation. The architects felt that an arch structure was the frankest approach: "the form literally follows the function."

In 1968, operations at the plant ceased when asphalt production for all five boroughs was consolidated at a plant in Queens. The conveyor and storage buildings were torn down, but the mixing plant successfully resisted repeated assaults for three weeks by the demolition ball. A number of uses were proposed for the site, including a housing project and a new school. In 1972, a grass roots community organization began raising funds to convert the site into a much needed youth sports and recreational center which is now known as "Asphalt Green." The Neighborhood Committee for Asphalt Green, Inc. now hopes to convert the mixing plant to a three-level indoor recreation center, including a full-sized gymnasium and an arts center (see diagram), keyed primarily to the needs of all schools in the area and also to the community at large. The firm of Kahn & Jacobs has been engaged to design the new interior facility. Such a conversion would not only serve a great community need in conjunction with the Asphalt Green playfields, but would also provide a means of preserving one of the most notable and unique examples of modern architecture in New York City.

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DATE ENTERED MAY 23 1980

CONTINUATION SHEET

Municipal
Asphalt Plant

ITEM NUMBER

9

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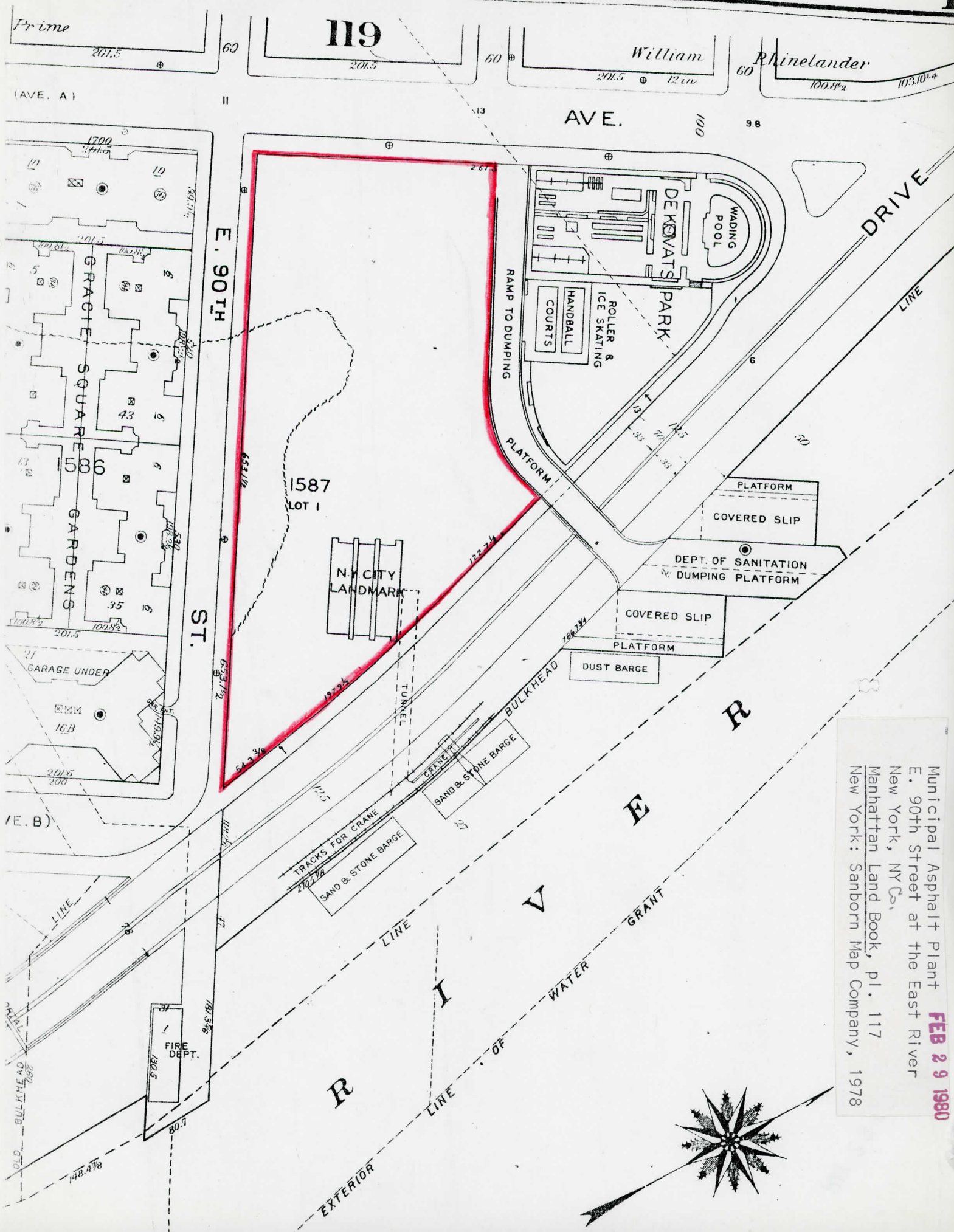
New York Times March 28, 1941 ; November 21, 1943, section 6, p. 19; December 19, 1943, section 6, p. 30; January 16, 1944, section 6, p. 34; January 30, 1944, section 6, p. 37; April 27, 1944, p. 22; May 6, 1944, p. 14; May 25, 1944, p. 15.

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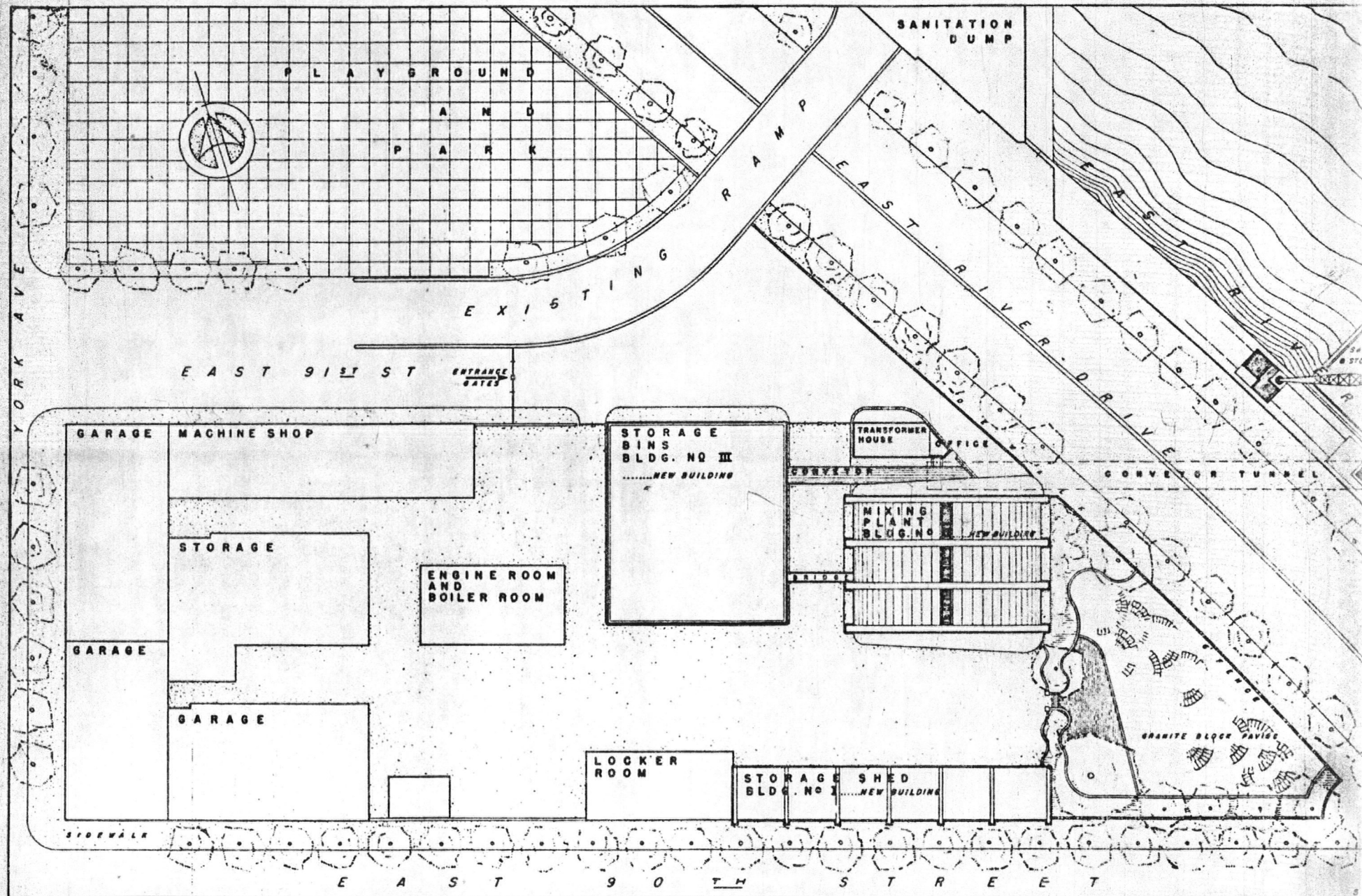


Municipal Asphalt Plant
E. 90th Street at the East River
New York, NY Co.
Manhattan Land Book, pl. 117
New York: Sanborn Map Company, 1978

FEB 29 1980

MAY 23 1980

FEB 29 1980



THE NEW MUNICIPAL ASPHALT PLANT

0 20' 40' 60' 80' 100'

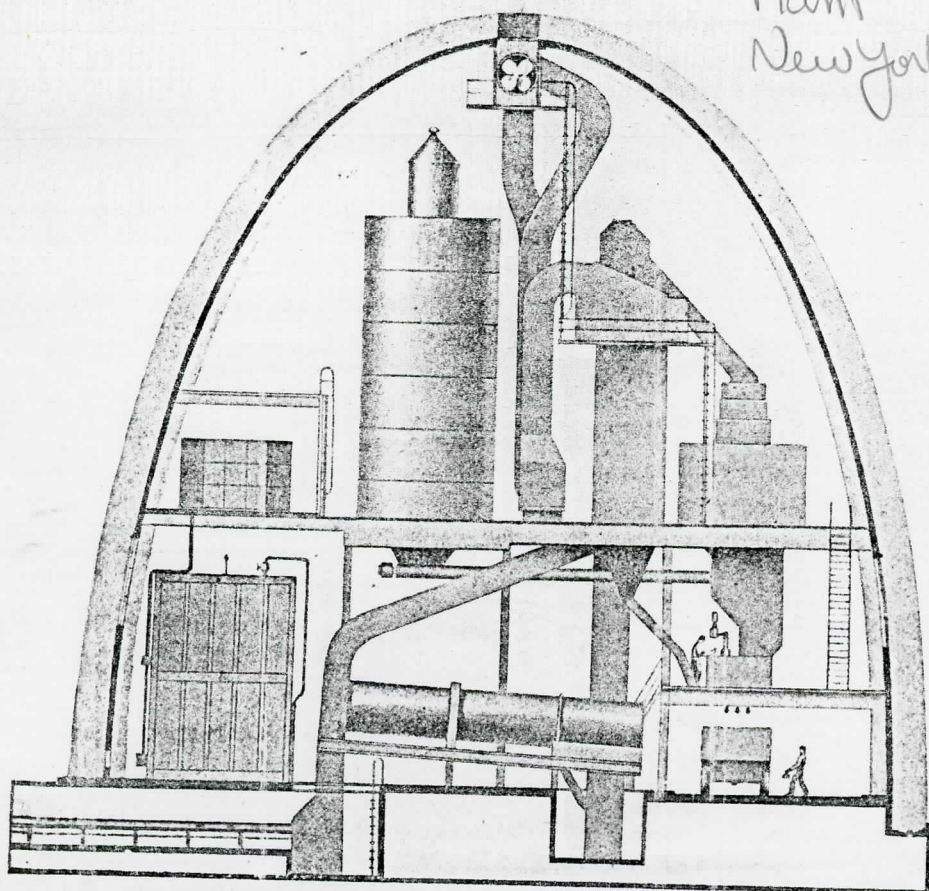
Municipal Asphalt Plant
New York New York County

MAY 23 1980

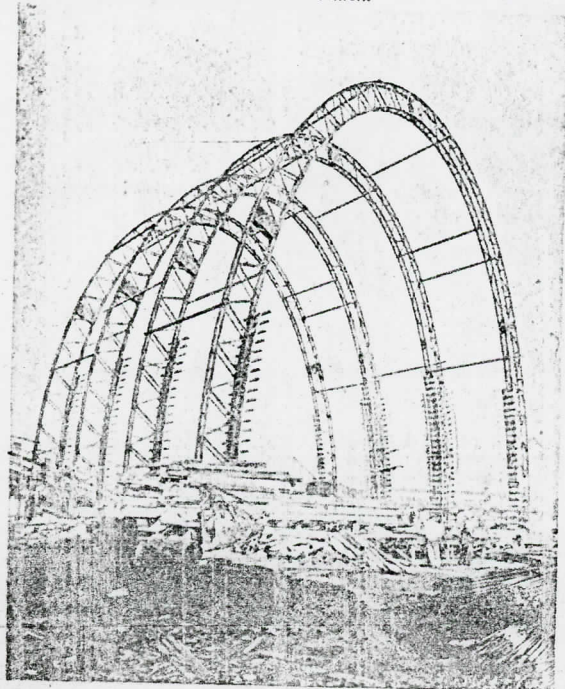
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FEB 5 0 1980

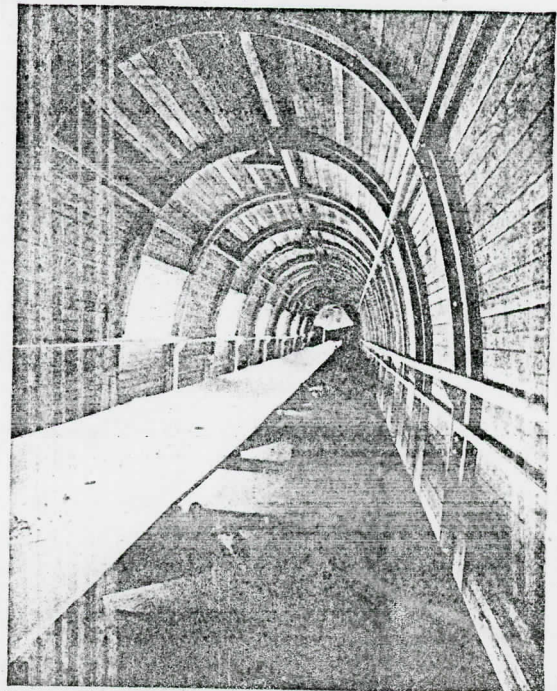
Municipal Asphalt Plant
Plant
New York, New York Co.



Light steel trusses served as reinforcement



Interior of the main conveyor tube



Property

Municipal asphalt Plant

80002702

State

NY - New York

Working Number

2-29-80 770

TECHNICAL

CONTROL

Photos 2Maps 2

HISTORIAN

Built 1941-44, this structure does not meet N.R. criteria concerning age. The exception to the age criteria allows inclusion of structures less than 50 years old if they are of exceptional importance. The asphalt plant is both unusual and noteworthy in its design. The nomination states that it is one of the "most notable and unique examples of modern architecture in New York City." However, as presented in the nomination, the building does not appear to be of exceptional importance as there is no indicator of just how "unique" this is in New York City, state or nationally. I would like to discuss this further before making a recommendation.

ARCHITECTURAL HISTORIAN

ARCHAEOLOGIST

P. Reed. 5/5/80

OTHER

HAER

Inventory _____

Review _____

I consulted with B. Lebovich on Q of exceptional significance in 20c architecture. He knows bldg. and has used it in teaching on 1930s. An impressive bldg by a major architectural firm, the plant reflects important trends in international design of the period. Although European architects had experimented with concrete and parabolas in 30s (e.g., LeCorbusier's design for the Palace of the Soviets and Swiss architect

REVIEW UNIT CHIEF

Robert Maillart's sugar storage bldg.), this plant is one of, if not the, first such completed designs in the US and therefore is clearly of exceptional significance according to the NR and our "How To" guidelines.

BRANCH CHIEF

ACCEPT 5/8/80

KEEPER

National Register Write-up _____

Send-back _____

Entered MAY 23 1980

Federal Register Entry 2-3-81

Re-submit _____



1. *Municipal Asphalt Plant*
New York County, New York

Photo by: Stephen L. Senigo, 1980
Neg. at: New York City Landmarks
Preservation Commission

MAY 23 1980

View from east

1/2

FEB 29 1980



2. Municipal Asphalt Plant
New York County, New York

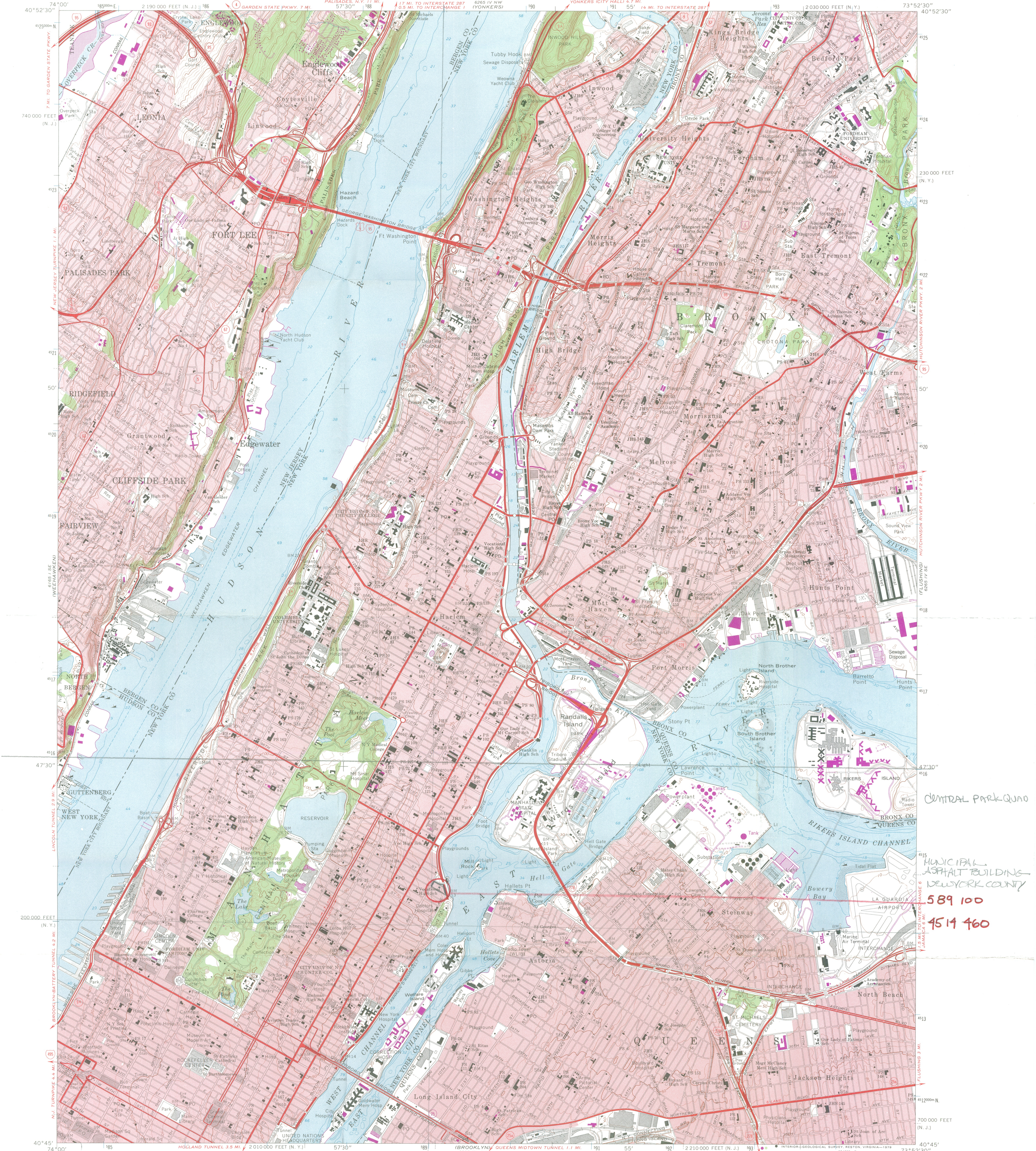
Photo by: Stephen L. Senigo, 1980
Neg. at: New York City Landmarks
Preservation Commission

MAY 23 1980

View from south

FEB 29 1980

3/2

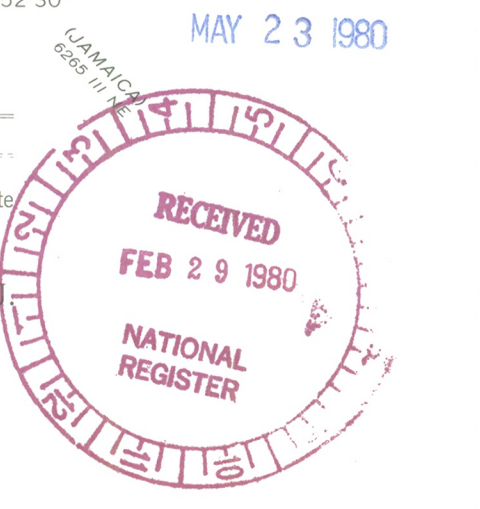


Mapped, edited, and published by the Geological Survey
Revised in cooperation with New York
Department of Transportation
Control by USGS, USC&GS, and New Jersey Geodetic Survey
Planimetry by photogrammetric methods and from USC&GS Charts T-4567,
T-5089, T-5264, T-5278, T-5448, T-5451, T-5452, T-5453, T-5458,
and T-5778. Topography by photogrammetric methods from aerial photographs
taken 1954 and planimetry surveys 1956.
Revised from aerial photographs taken 1966. Field checked 1966
Selected hydrographic data compiled from USC&GS Charts 226, 274, 745,
746, and 747 (1966). This information is not intended for navigational purposes
Polyconic projection. 1927 North American datum
10,000-foot grids based on New York coordinate system, Long Island zone,
and New Jersey coordinate system
1000-meter Universal Transverse Mercator grid ticks, zone 18, shown in blue
Red tint indicates areas in which only landmark buildings are shown

SCALE 1:24,000
CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
DEPTH CURVES AND SOUNDINGS IN FEET-DATUM IS MEAN LOW WATER
THE RELATIONSHIP BETWEEN THE TWO DATUMS IS VARIABLE
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
THE AVERAGE RANGE OF TIDE IS APPROXIMATELY 2 FEET
4 FEET IN THE HUDSON RIVER AND 5.7 FEET IN THE EAST RIVER
THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

Revisions shown in purple compiled from aerial photographs
taken 1977 and other source data. This information
not field checked. Map edited 1979
There may be private inclusions within the boundaries of
the National or State reservations shown on this map

ROAD CLASSIFICATION
Heavy-duty ——— Light-duty ———
Medium-duty ——— Unimproved dirt ———
Interstate Route ——— U.S. Route ——— State Route ———
CENTRAL PARK, N.Y. - N.
SW/4 HARLEM 15 QUADRANGLE
N4045-W7352.5/7.5
1966
PHOTOREVISED 1979
AMS 6265 IV SW-SERIES V821



ENTRIES IN THE NATIONAL REGISTER

STATE NEW YORK

Date Entered MAY 23 1980

<u>Name</u>	<u>Location</u>
Municipal Asphalt Plant	New York New York County

Also Notified

Honorable Daniel P. Moynihan
Honorable Charles B. Rangel
Honorable Jacob K. Javits

State Historic Preservation Officer
Mr. Orin Lehman
Commissioner
Parks and Recreation
Agency Building #1
Empire State Plaza
Albany, New York 12238

NR Byers/mjd 6/2/80

For further information, please call the National Register at (202)343-6401.