



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
 DIVISION OF ENVIRONMENTAL REMEDIATION
Site Classification Report



DATE: 9/14/2017

Site Code: 243006	Site Name: Brookfield Avenue Landfill
City: Staten Island	Town: New York City
Region: 2	County: Richmond
Current Classification: 02	Proposed Classification: 04
Estimated Size (acres): 243.58	Disposal Area: Landfill
Significant Threat: Previously	Site Type:
Priority ranking Score:	Project Manager: Michael Mason

Summary of Approvals

Originator/Supervisor: David Harrington	08/11/2017
RHWRE: Jane O'Connell:	08/14/2017
BEEI of NYSDOH:	07/12/2017
CO Bureau Director: Michael Cruden, Director, Remedial Bureau	08/11/2017
Assistant Division Director: Michael J. Ryan, P.E.:	08/14/2017

Basis for Classification Change

Threats from the disposal of hazardous waste at this site were addressed by the implementation of the remedy identified for the site by two Records of Decisions. All construction components were completed later than 2015. The Final Engineering Report (FER) confirms that the remedy has been constructed with requirements in the RODs. The FER has been filed in DecDocs. Management of contamination remains at the site, including any required monitoring, is and has been controlled pursuant to a Site Management Plan (SMP). A copy of the SMP is filed in DecDocs. Institutional controls were required to ensure the protectiveness of the site. The required controls in the form of an Environmental Easement are in place. A significant threat to public health and the environment no longer exists at the site. The site is properly remediated and requires site management, therefore, it qualifies for Class 4 status on the Registry of Inactive Hazardous Waste disposal sites.

Site Description - Last Review: 08/07/2017

Location: Arthur Kill Road, Staten Island, New York

Site Features: The site is a now closed former solid waste landfill. The site occupies 244 acres.

Past Use of the Site: The Brookfield site was operated by the NYC Department of Sanitation (NYCDOS) from



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION
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Site Name: Brookfield Avenue Landfill

Analytical Data Available for : Air, Groundwater, Surface Water, Soil, Sediment

Applicable Standards Exceeded for: Groundwater, Surface Water

Site Environmental Assessment- Last Review: 08/07/2017

The site has been remediated. Prior to remediation, studies had shown that the groundwater in the immediate site area has been contaminated with a variety of heavy metals and organic compounds in excess of groundwater standards.

Remedial actions have successfully achieved remedial action objectives and residual contamination is being managed under a Site Management Plan.

Site Health Assessment - Last Update: 07/12/2017

Remedial actions are complete and measures are in place to control the potential for coming in contact with residual contamination remaining at the site.

	Start		End	
OU 00				
Periodic Review	6/29/17	ACT	7/5/17	ACT
Periodic Review	3/30/18	PLN	5/14/18	PLN
Reclass Pkg.	3/1/17	ACT	9/30/17	PLN
Site Management	10/1/15	ACT	11/30/45	PLN
OU 01				
OGC Docket - Environmental Easement	4/1/13	ACT	1/9/17	ACT
OGC Docket - Environmental Notice	3/23/11	ACT	8/20/15	TRM
Remedial Action	11/6/09	ACT	11/30/15	ACT
Remedial Design	3/29/02	ACT	5/29/06	ACT
Remedial Investigation	10/1/93	ACT	3/19/02	ACT
OU 02				
Remedial Action	1/10/08	ACT	10/1/15	ACT
Remedial Design	11/1/07	ACT	1/10/08	ACT
Remedial Investigation	9/3/03	ACT	3/30/07	ACT

Remedy Description and Cost

Remedy Description for Operable Unit 01

The remedy consists of a Part 360 landfill cap, a slurry wall around the entire site (depth range 25-40 feet), leachate collection and treatment, landfill gas wells (both horizontal and vertical) as part of a gas collection system which terminates at an enclosed flare and institutional controls.

Total Cost \$85,763,000



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
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Site Name: Brookfield Avenue Landfill

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Form
 9/14/2017

SITE DESCRIPTION

SITE NO. 243006

SITE NAME Brookfield Avenue Landfill

SITE ADDRESS: Arthur Kill Road **ZIP CODE:** 10031

CITY/TOWN: Staten Island

COUNTY: Richmond

ALLOWABLE USE: Commercial and Industrial

SITE MANAGEMENT DESCRIPTION

SITE MANAGEMENT PLAN INCLUDES:

IC/EC Certification Plan	NO
Monitoring Plan	YES
Operation and Maintenance (O&M) Plan	NO

Periodic Review Frequency: once a year

Periodic Review Report Submittal Date: 03/30/2018



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION
Site Classification Report



DATE: 9/14/2017

Site Code: 243006

Site Name: Brookfield Avenue Landfill

Description of Institutional Control

575 Arthur Kill Road

Environmental Easement

Block: 5559

Lot: 01

Sublot:

Section:

Subsection:

S_B_L Image: 5559-01

Ground Water Use Restriction

Landuse Restriction

O&M Plan

Site Management Plan

Surface Water Use Restriction

Arthur Kill Road

Environmental Easement

Block: 4449

Lot: 01

Sublot:

Section:

Subsection:

S_B_L Image: 4449-01

Ground Water Use Restriction

Landuse Restriction

Monitoring Plan

O&M Plan

Site Management Plan

Soil Management Plan

Surface Water Use Restriction

Block: 4454

Lot: 01

Sublot:



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DATE: 9/14/2017

Site Code: 243006

Site Name: Brookfield Avenue Landfill

Section:

Subsection:

S_B_L Image: 4454-01

Ground Water Use Restriction

Landuse Restriction

Monitoring Plan

O&M Plan

Site Management Plan

Soil Management Plan

Surface Water Use Restriction

Lot: 49

Sublot:

Section:

Subsection:

S_B_L Image: 4454-49

Ground Water Use Restriction

Landuse Restriction

Monitoring Plan

O&M Plan

Site Management Plan

Soil Management Plan

Surface Water Use Restriction

Block: 5540

Lot: 01

Sublot:

Section:

Subsection:

S_B_L Image: 5540-01

Ground Water Use Restriction

Landuse Restriction

Monitoring Plan

O&M Plan

Site Management Plan

Soil Management Plan



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
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DATE: 9/14/2017

Site Code: 243006

Site Name: Brookfield Avenue Landfill

Surface Water Use Restriction

Block: 5550

Lot: 01

Sublot:

Section:

Subsection:

S_B_L Image: 5550-01

Ground Water Use Restriction

Landuse Restriction

O&M Plan

Site Management Plan

Surface Water Use Restriction

Lot: 10

Sublot:

Section:

Subsection:

S_B_L Image: 5550-10

Ground Water Use Restriction

Landuse Restriction

Monitoring Plan

O&M Plan

Site Management Plan

Soil Management Plan

Surface Water Use Restriction

Lot: 22

Sublot:

Section:

Subsection:

S_B_L Image: 5550-22



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DATE: 9/14/2017

Site Code: 243006

Site Name: Brookfield Avenue Landfill

Ground Water Use Restriction
Landuse Restriction
Monitoring Plan
O&M Plan
Site Management Plan
Soil Management Plan
Surface Water Use Restriction

Block: 5551

Lot: 01

Sublot:

Section:

Subsection:

S_B_L Image: 5551-01

Ground Water Use Restriction
Landuse Restriction
O&M Plan
Site Management Plan
Surface Water Use Restriction

Block: 5552

Lot: 01

Sublot:

Section:

Subsection:

S_B_L Image: 5552-01

Ground Water Use Restriction
Landuse Restriction
O&M Plan
Site Management Plan
Surface Water Use Restriction



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DATE: 9/14/2017

Site Code: 243006

Site Name: Brookfield Avenue Landfill

Block: 5553
Lot: 01
Sublot:
Section:
Subsection:
S_B_L Image: 5553-01
Ground Water Use Restriction
Landuse Restriction
Monitoring Plan
O&M Plan
Site Management Plan
Soil Management Plan
Surface Water Use Restriction

Block: 5554
Lot: 01
Sublot:
Section:
Subsection:
S_B_L Image: 5554-01
Ground Water Use Restriction
Landuse Restriction
Monitoring Plan
O&M Plan
Site Management Plan
Soil Management Plan
Surface Water Use Restriction

Block: 5555
Lot: 01
Sublot:
Section:
Subsection:
S_B_L Image: 5555-01
Ground Water Use Restriction
Landuse Restriction
O&M Plan



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Site Classification Report



DATE: 9/14/2017

Site Code: 243006

Site Name: Brookfield Avenue Landfill

Site Management Plan
Surface Water Use Restriction

Block: 5559
Lot: 100
Sublot:
Section:
Subsection:
S_B_L Image: 5559-100
Ground Water Use Restriction
Landuse Restriction
Monitoring Plan
O&M Plan
Site Management Plan
Soil Management Plan
Surface Water Use Restriction

Block: 5570
Lot: 01
Sublot:
Section:
Subsection:
S_B_L Image: 5570-01
Ground Water Use Restriction
Landuse Restriction
Monitoring Plan
O&M Plan
Site Management Plan
Soil Management Plan
Surface Water Use Restriction



DATE: 9/14/2017

Site Code: 243006

Site Name: Brookfield Avenue Landfill

Description of Engineering Control

575 Arthur Kill Road

Environmental Easement - Institutional Control Instrument

Block: 5559

Lot: 01

Sublot:

Section:

Subsection:

S_B_L Image: 5559-01

Cover System

Leachate Collection

Subsurface Barriers

Fencing/Access Control

Monitoring Wells

Arthur Kill Road

Environmental Easement - Institutional Control Instrument

Block: 4449

Lot: 01

Sublot:

Section:

Subsection:

S_B_L Image: 4449-01

Cover System

Leachate Collection

Subsurface Barriers

Fencing/Access Control

Monitoring Wells

Block: 4454

Lot: 01

Sublot:

Section:

Subsection:

S_B_L Image: 4454-01

Cover System

Leachate Collection

Subsurface Barriers

Fencing/Access Control

Monitoring Wells

Lot: 49

Sublot:

Section:

Subsection:

S_B_L Image: 4454-49

Cover System

Leachate Collection

Subsurface Barriers

Fencing/Access Control

Monitoring Wells



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Site Code: 243006

Site Name: Brookfield Avenue Landfill

Block: 5540	Lot: 01	Sublot:	Section:	Subsection:	S_B_L Image: 5540-01	Cover System	Leachate Collection	Subsurface Barriers	Fencing/Access Control	Monitoring Wells
Block: 5550	Lot: 01	Sublot:	Section:	Subsection:	S_B_L Image: 5550-01	Fencing/Access Control	Monitoring Wells	Cover System	Leachate Collection	Subsurface Barriers
	Lot: 10	Sublot:	Section:	Subsection:	S_B_L Image: 5550-10	Cover System	Leachate Collection	Subsurface Barriers	Fencing/Access Control	Monitoring Wells
	Lot: 22	Sublot:	Section:	Subsection:	S_B_L Image: 5550-22	Cover System	Leachate Collection	Subsurface Barriers	Fencing/Access Control	Monitoring Wells
Block: 5551	Lot: 01	Sublot:	Section:	Subsection:	S_B_L Image: 5551-01	Vapor Mitigation				



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Site Classification Report



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Site Code: 243006

Site Name: Brookfield Avenue Landfill

	Cover System
	Leachate Collection
	Fencing/Access Control
	Monitoring Wells
Block: 5552	
Lot: 01	
Sublot:	
Section:	
Subsection:	
S_B_L Image: 5552-01	
Fencing/Access Control	
Monitoring Wells	
Vapor Mitigation	
Cover System	
Leachate Collection	
Block: 5553	
Lot: 01	
Sublot:	
Section:	
Subsection:	
S_B_L Image: 5553-01	
Cover System	
Leachate Collection	
Fencing/Access Control	
Monitoring Wells	
Block: 5554	
Lot: 01	
Sublot:	
Section:	
Subsection:	
S_B_L Image: 5554-01	
Cover System	
Leachate Collection	
Subsurface Barriers	
Fencing/Access Control	
Monitoring Wells	
Block: 5555	
Lot: 01	
Sublot:	
Section:	
Subsection:	
S_B_L Image: 5555-01	
Cover System	
Leachate Collection	
Subsurface Barriers	
Fencing/Access Control	
Monitoring Wells	
Block: 5559	
Lot: 100	



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DIVISION OF ENVIRONMENTAL REMEDIATION
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DATE: 9/14/2017

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Site Name: Brookfield Avenue Landfill

Sublot:	
Section:	
Subsection:	
S_B_L Image:	5559-100
	Cover System
	Leachate Collection
	Subsurface Barriers
	Fencing/Access Control
	Monitoring Wells
Block:	5570
Lot:	01
Sublot:	
Section:	
Subsection:	
S B L Image:	5570-01
	Fencing/Access Control
	Monitoring Wells
	Cover System
	Leachate Collection
	Subsurface Barriers



PUBLIC NOTICE

State Superfund Program

Receive Site Information by Email. See next page to Learn How.

Site Name: Brookfield Avenue Landfill

September 14, 2017

Site No.: 243006 **Tax Map No.:** 4449-01; 4454-01, 49; 5540-01; 5550-01,10, 22;
5551-01; 5552-01; 5553-01; 5554-01; 5555-01;
5559-01, 100, 260; 5570-01; 5558-01

Site Location: Arthur Kill Road, Staten Island NY 10031

Inactive Hazardous Waste Disposal Site Classification Notice

The Inactive Hazardous Waste Disposal Site Program (the State Superfund Program) is the State's program for identifying, investigating, and cleaning up sites where the disposal of hazardous waste may present a threat to public health and/or the environment. The New York State Department of Environmental Conservation (DEC) maintains a list of these sites in the Registry of Inactive Hazardous Waste Disposal Sites (Registry). The site identified above, and located on the attached map, has been reclassified on the Registry as a Class 4 site as it no longer presents a significant threat to public health and/or the environment for the following reason(s):

Remedial actions have successfully achieved remedial action objectives and residual contamination is being managed under a Site Management Plan. Institutional controls in the form of an environmental easement have been imposed to address human exposures to remaining contamination at the site. The easement restricts the use of the property to commercial use, (including passive recreational use) or industrial use as described in 6 NYCRR Part 375-1.8(g) and also prohibits the use of groundwater as a source of potable or process water without prior approval. Compliance with the approved site management plan and annual certification by the property owner to the New York State Department of Environmental Conservation will ensure that the institutional and engineering controls remain effective.

If you own property adjacent to this site and are renting or leasing your property to someone else, please share this information with them. If you no longer wish to be on the contact list for this site or otherwise need to correct our records, please contact DEC's Project Manager listed below.

FOR MORE SITE INFORMATION

Additional information about this site can be found using DEC's "Environmental Site Remediation Database Search" engine which is located on the internet at:

www.dec.ny.gov/cfm/extapps/derexternal/index.cfm?pageid=3

Comments and questions are always welcome and should be directed as follows:

Project Related Questions

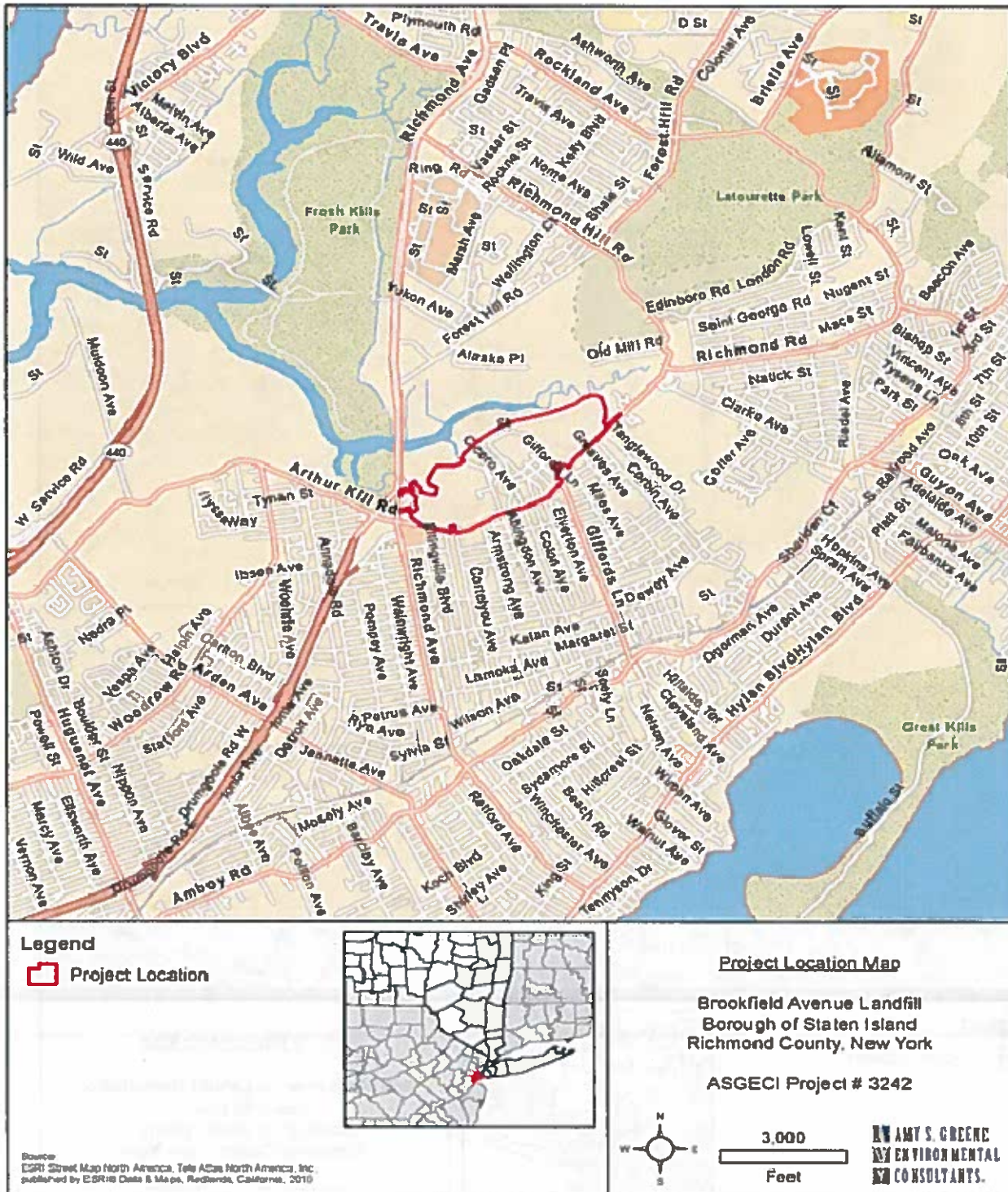
Michael Mason , Project Manager
NYS Department of Environmental Conservation
625 Broadway
Albany, NY 12233-
Michael.mason@ny.dec.gov
518-402-9806

Site Related Health Questions

Justin Deming, Project Manager
NYS Department of Health
Corning Tower, Room 1787
Albany, NY 12210
BEEI@health.ny.gov
518-402-7860

DEC is sending you this notice in accordance with Environmental Conservation Law Article 27, Title 13 and its companion regulation (6 NYCRR 375-2.7(b)(6)(ii)) which requires DEC to notify all parties on the contact list for this site of this recent action.

Figure 1



Receive Site Updates by Email

Have site information such as this public notice sent right to your email inbox. DEC invites you to sign up with one or more contaminated sites county email listservs available at the following web page:

www.dec.ny.gov/chemical/61092.html . It's *quick*, it's *free*, and it will help keep you *better informed*.



As a listserv member, you will periodically receive site-related information/announcements for all contaminated sites in the county(ies) you select.

Note: Please disregard if you received this notice by way of a county email listserv.

NYC Sanitation Department
125 Worth Street
New York, NY 10013

Richmond County Clerk
130 Stuyvesant Pl
Staten Island, NY 10301

Dan Dononvan Jr., congressman
2nd Floor
265 New Dorp Lane
Staten Island, NY 10306

Fruank Morano, chairman
NYC community board 3, Staten Island
2nd Floor
1243 Woodrow Road
Staten Island, NY 10309

Honorable Charles Schumer
Suite 2301
780 Third Avenue
New York, NY 10017

Kirsten Gillibrand
Suite 2601
780 Third Avenue
New York, NY 10017

James S. Oddo, Borough President
Borough Hall, Room 120
10 Richmond Terrace
Staten Island, NY 10301

Mayor Bill De Blasio
City Hall
New York, NY 10007

New York Post
1211 Avenue of the Americas
New York, NY 10036

New York Dailey News
450 West 33rd Street
New York, NY 10001

New York 1 News
75 Ninth Avenue
New York, NY 10011

Scott Stringer, NYC comptroller
Room 517
1 Centre Street
New York, NY 10007

Dr. Robert Kulikowski, Director, NYC
Office of Environmental Coordination
14th Floor
253 Broadway
New York, NY 10007

Adriano Espaillat, Congressman
1630 Longworth House Office Building
New York, NY 20515

S.I. Community Board 2
Sea View Hospital
Lou Caravone Community Services
Building
460 Brielle Avenue
Staten Island, NY 10314
St. Patrick School
3560 Richmond Road
Staten Island, NY 10306

S.I. Community Board 3
655-218 Rossville Ave.
Staten Island, NY 10309

PS 32
32 Elverton Avenue
Staten Island, NY 10308

PS 37
15 Fairfield Street
Staten Island, NY 10308

Staten Island Public Library
Richmond Branch
200 Clarke Avenue
Staten Island, NY 10306

Staten Island Public Library
New Dorp Regional
309 New Dorp Lane
Staten Island, NY 10306

NYC Dept. of Environmental Protection
Bureau of Engineering Design and
Construction
4th Floor
96-05 Horace Harding Expressway
Corona, NY 11368

NYC Dept. of Environmental Protection
Bureau of Legal Affairs
19th Floor
59-17 Junction Blvd.
Flushing, NY 11373

Holtermann Bakery
405 Arthur Kill Rd.
Staten Island, NY 10308

Mary Travis Bassett, Commissioner
NYC Dept of Health and Mental Hygiene
42-09 28th Street
Long Island City, NY 11101

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Bureau of Technical Support
625 Broadway, 11th Floor, Albany, NY 12233-7020
P: (518) 402-9543 | F: (518) 402-9547
www.dec.ny.gov

August 14, 2017

Honorable Vincent Sapienza, P.E.
Acting Commissioner
NYC Department of Environmental Protection
96-05 Horace Harding Expressway-2nd Floor
Corona, NY 11368

Dear Commissioner Sapienza:

As mandated by Section 27-1305 of the Environmental Conservation Law (ECL), the New York State Department of Environmental Conservation (DEC) must maintain a Registry of all inactive disposal sites suspected or known to contain hazardous waste. The ECL also mandates that DEC notify the owner of all or any part of each site or area included in the Registry of Inactive Hazardous Waste Disposal Sites as to changes in site classification.

Our records indicate that you are the owner or part owner of the site listed below. Therefore, this letter constitutes notification of change in the classification of such site in the Registry of Inactive Hazardous Waste Disposal Sites in New York State.

DEC Site No.: 243006
Site Name: Brookfield Avenue Landfill
Site Address: Arthur Kill Road
Classification change: Class 2 to 4

The reason for the change is as follows:

Remedial actions have successfully achieved remedial action objectives and residual contamination is being managed under a Site Management Plan. Institutional controls in the form of an environmental easement have been imposed to address human exposures to remaining contamination at the site. The easement restricts the use of the property to commercial use (including passive recreational use) or industrial use as described in 6 NYCRR Part 375-1.8(g) and also prohibits the use of groundwater as a source of potable or process water without prior approval. Compliance with the approved site management plan and annual certification by the property owner will ensure that the institutional and engineering controls remain effective.

Enclosed is a copy of DEC's Inactive Hazardous Waste Disposal Site Report form as it appears in the Registry. An explanation of the site classifications is available at <http://www.dec.ny.gov/chemical/8663.html>. The Law allows the owner and/or operator of a site listed in the Registry to petition the Commissioner of DEC for deletion of such site, modification of site classification, or modification of any information regarding such site, by submitting a written statement setting forth the grounds of the petition.

Such petition may be addressed to:

Honorable Basil Seggos, Commissioner
NYS Department of Environmental Conservation
625 Broadway
Albany, New York 12233-1010

For additional information, please contact Michael Mason, the project manager at 518-402-9806.

Sincerely,



Kelly A. Lewandowski, P.E.
Chief
Site Control Section

Enclosure

cc w/Enclosure:

C. Bitet
R. Schick
L. Zeppetelli
J. Quinn
K. Lewandowski
M. Mason



**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL
CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION
Inactive Hazardous Waste Disposal Report**



Site Code	243006			
Site Name	Brookfield Avenue Landfill	Address	Arthur Kill Road	
Classification	04	City	Staten Island	Zip 10031
Region	2	County	Richmond	Town New York City
Latitude	40 degrees, 33 minutes, 54.74 seconds			Estimated Size 243.5800
Longitude	-74 degrees, 9 minutes, 33.44 seconds			
Site Type	Landfill			

Site Description

Location: Arthur Kill Road, Staten Island, New York

Site Features: The site is a now closed former solid waste landfill. The site occupies 244 acres.

Past Use of the Site: The Brookfield site was operated by the NYC Department of Sanitation (NYCDOS) from 1966 until 1980 as a disposal site for general refuse, including household garbage and construction wastes. Reports however indicated that various hazardous wastes were illegally disposed from 1974-1980 at several NYC landfills, including Brookfield Avenue.

Operable Units: The site was divided into two operable units. An operable unit represents a portion of a remedial program for a site that for technical or administrative reasons can be addressed separately to investigate, eliminate or mitigate a release, threat of release or exposure pathway resulting from the site contamination. Operable Unit 1 (OU1) represents the landfill area and OU2 represents the adjacent Richmond Creek area.

Site Geology and Hydrogeology: Three main aquifer systems were investigated. These include the Recent/Shallow Glacial, Deep Glacial/ Reworked Cretaceous and the Cretaceous aquifer systems. The first two systems comprise the Upper Glacial aquifer. Confining units separate the shallow Glacial, the deep Glacial, and the Cretaceous aquifer. The shallow Glacial is found from the surface to a depth of about 30 ft, the deep Glacial is generally found from about 30 to 50 feet below the surface, and the Cretaceous aquifer is generally found from about 50 to 150 feet below the surface. The shallow Glacial aquifer flows from south to north and discharges into Richmond Creek. The deep Glacial aquifer also flows from south to north; the Cretaceous aquifer flows from north to south, generally toward the ocean.

Materials Disposed at Site

OU 01	
chromium	UNKNOWN
cadmium	UNKNOWN
mercury	UNKNOWN
benzo(a)pyrene	UNKNOWN
PCB aroclor 1254	UNKNOWN
ammonia	UNKNOWN
benzene	UNKNOWN
chlorobenzene	UNKNOWN
OU 02	
copper	UNKNOWN
lead	UNKNOWN
mercury	UNKNOWN
nickel	UNKNOWN

8/14/2017

antimony	UNKNOWN
arsenic	UNKNOWN
cadmium	UNKNOWN
chromium	UNKNOWN
manganese	UNKNOWN
silver	UNKNOWN
zinc	UNKNOWN
chlorobenzene	UNKNOWN
alpha-BHC	UNKNOWN
polychlorinated biphenyls (PCB)	UNKNOWN
dieldrin	UNKNOWN
endosulfan	UNKNOWN

Analytical Data Available for : Air, Groundwater, Surface Water, Soil, Sediment

Applicable Standards Exceeded for: Groundwater, Surface Water

Assessment of Environmental Problems

The site has been remediated. Prior to remediation, studies had shown that the groundwater in the immediate site area has been contaminated with a variety of heavy metals and organic compounds in excess of groundwater standards.

Remedial actions have successfully achieved remedial action objectives and residual contamination is being managed under a Site Management Plan.

Assessment of Health Problems

Remedial actions are complete and measures are in place to control the potential for coming in contact with residual contamination remaining at the site.

Owners

Current Owner(s)

NYC SANITATION DEPARTMENT
125 WORTH STREET
NEW YORK NY 10013

NYC DEPARTMENT OF SANITATION
125 WORTH ST.
NEW YORK NY 10013

Disposal Owner(s)

NYC DEPARTMENT OF SANITATION

Operators

Current Operator(s)

NYC SANITATION DEPARTMENT
125 WORTH STREET
NEW YORK NY 10013

NYC SANITATION DEPARTMENT
125 WORTH STREET
NEW YORK NY 10013

ZZ



Department of Health

ANDREW M. CUOMO
Governor

HOWARD A. ZUCKER, M.D., J.D.
Commissioner

SALLY DRESLIN, M.S., R.N.
Executive Deputy Commissioner

July 12, 2017

Michael Cruden, Director
Remedial Bureau E
Division of Environmental Remediation
NYS Dept. of Environmental Conservation
625 Broadway, 12th Floor
Albany, NY 12233

Re: **Final Engineering Report and
Site Management Plan**
Brookfield Avenue Landfill
Site #243006
Staten Island, Richmond County

Dear Mr. Cruden:

At your Department's request, we have reviewed the *Final Engineering Report* and the *Post-Closure Monitoring, Sampling and Analysis Plan*, which serves the purpose of a site management plan, for the referenced site. I understand that the remedial activities included installation of a slurry wall around the perimeter of the landfill cells; drainage control features; a landfill gas management system; a leachate collection system; and a landfill cover system consisting of a geosynthetic membrane, 12-inches of compacted soil and topsoil planted with vegetative cover material.

Institutional controls in the form of an environmental easement have been imposed to address human exposures to remaining soil, groundwater, and soil vapor contamination at the site. The easement restricts the use of the property to commercial or industrial use as described in 6 NYCRR Part 375-1.8(g) and also prohibits the use of groundwater as a source of potable or process water without prior approval. Compliance with the approved site management plan and annual certification by the property owner to the New York State Department of Environmental Conservation will ensure that the institutional and engineering controls remain effective.

Based on our review, I believe that remedial actions have been satisfactorily completed in accordance with the March 2007 Record of Decision and that measures are in place to prevent human exposures to residual contamination. If you have any questions, please contact me at (518) 402-7860.

Sincerely,

Justin H. Deming, Chief
Regions 2, 4 & 8
Bureau of Environmental Exposure Investigation

ec: K. Anders / D. Hettrick / e-file
C. Westerman – NYSDOH MARO
C. D'Andrea – NYC DOHMH
M. Mason / K. Lewandowski – NYSDEC Central Office
J. O'Connell – NYSDEC Region 2

Figure 3.



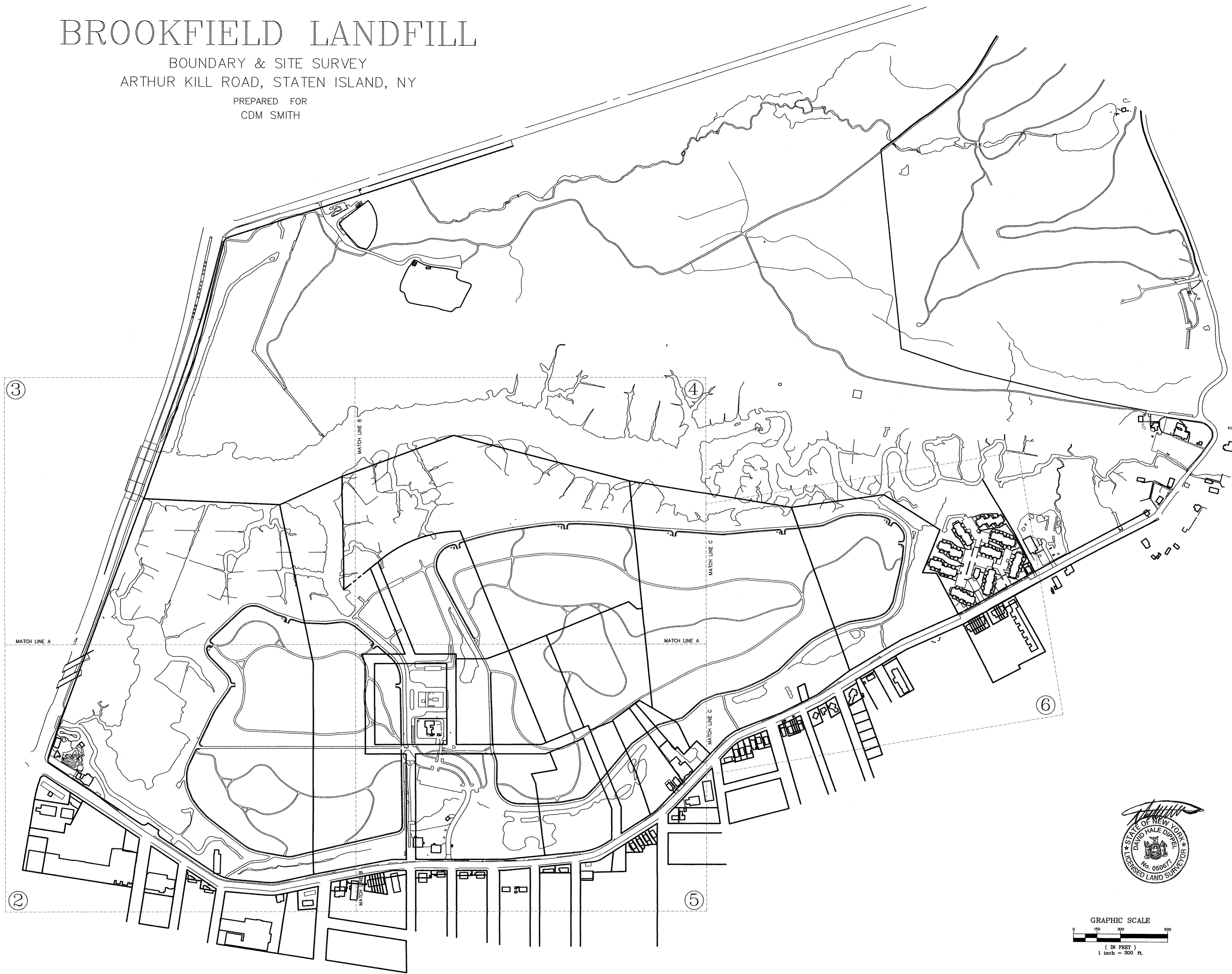
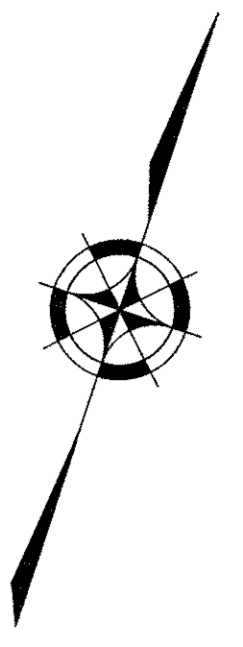
40°33'43.27"N 74°09'37.88"W

Staten Island, NY (google earth)

BROOKFIELD LANDFILL

BOUNDARY & SITE SURVEY
ARTHUR KILL ROAD, STATEN ISLAND, NY

PREPARED FOR
CDM SMITH

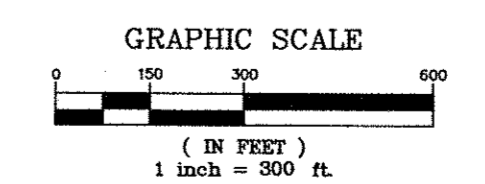



SURVEY NOTES

- THIS PLAN WAS PREPARED FROM AN AERIAL SURVEY CONDUCTED BY WSP ON AND AN ON THE GROUND FIELD SURVEY CONDUCTED BY WSP DURING MAY 2015 AND ON THE FOLLOWING DATUM.
MERIDIAN: GRID NORTH
HORIZONTAL: NAD 83 NEW YORK LI
VERTICAL: NAVD 88
- THE SURVEYED PROPERTY IS SUBJECT BUT NOT LIMITED TO THE INFORMATION SHOWN HEREON. ALL INFORMATION THAT MAY AFFECT THE QUALITY OF TITLE TO BOTH THE SUBJECT AND ADJOINING PARCELS SHOULD BE VERIFIED BY AN ACCURATE AND CURRENT TITLE REPORT.
- THE LOCATION OF THE UTILITIES AS SHOWN HEREON HAVE BEEN COMPILED FROM VISIBLE STRUCTURES AND INFORMATION OBTAINED FROM VARIOUS SOURCES. THE ACTUAL LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES SHALL BE CONSIDERED APPROXIMATE AND SHALL BE VERIFIED BY THE OWNER PRIOR TO ANY CONSTRUCTION.
- WETLANDS, ENVIRONMENTAL AND/OR HAZARDOUS MATERIALS LOCATION, IF ANY, NOT COVERED UNDER THIS CONTRACT.
- UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW.
- CERTIFICATIONS INDICATED HEREON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS.
- THIS PLAN NOT VALID UNLESS ORIGINAL STAMP AND SIGNATURE OF A LICENSED SURVEYOR ARE LOCATED HEREON.

REFERENCES

- MAP NUMBER 2726 ENTITLED, "MAP SHOWING CHANGES OF GRADES IN CORBIN AVE AND TROY ST. AND DALEHAM ST.", DATED MAY 16, 1953 AND FILED IN THE BOROUGH PRESIDENTS OFFICE.
- MAP NUMBER 2941 ENTITLED, "MAP ESTABLISHING LINES & GRADES WITHIN AN AREA BOUNDED BY: CORTELYOU AVENUE, ARTHUR KILL ROAD, ABINGTON AVENUE, & KATAN AVENUE", DATED APRIL 3, 1957 AND FILED IN THE BOROUGH PRESIDENTS OFFICE.
- MAP NUMBER 4016 ENTITLED, "MAP MODIFYING LINES & GRADES OF PEMBERTON AVE, AND GURLEY AVE.", DATED JUNE 17, 1981 AND FILED IN THE BOROUGH PRESIDENTS OFFICE.
- MAP NUMBER 2942 ENTITLED, "MAP ESTABLISHING LINES & GRADES FOR THE STREET SYSTEM WITHIN AN AREA BOUNDED BY: RICHMOND AVENUE AVENUE, CASWELL CIRCLE, ARTHUR KILL ROAD, CORTELYOU AVENUE, & KATAN AVENUE", DATED APRIL 8, 1957 AND FILED IN THE BOROUGH PRESIDENTS OFFICE.
- MAP NUMBER 2626 ENTITLED, "MAP SHOWING STREET SYSTEM FOR TERRITORY BOUNDED BY: VINTON ST., GIFFORDS L.A., ARTHUR KILL RD., & OCEANO AVE. AND ABINGTON AVE.", DATED JULY 2, 1951 AND FILED IN THE BOROUGH PRESIDENTS OFFICE.
- LAND CONVEYED TO MOLLIE GOTTLIEB BY DEED REEL 952 PAGE 454, FILED IN THE RICHMOND COUNTY CLERKS OFFICE ON JULY 15, 1946.
- LAND CONVEYED TO RICHMOND GREENS, INC BY DEED REEL 53 PAGE 6682, FILED IN THE RICHMOND COUNTY CLERKS OFFICE ON MAY 31, 1983.
- EASEMENT CONVEYED TO RICHMOND GREENS, INC BY DEED REEL 47 PAGE 1547, FILED IN THE RICHMOND COUNTY CLERKS OFFICE ON AUGUST 1, 1985.
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- LAND CONVEYED TO HOLTERMANN ENTERPRISES, LLC BY DOCUMENT 469078, FILED IN THE RICHMOND COUNTY CLERKS OFFICE ON MARCH 15, 2013.
- LAND CONVEYED TO ARTHUR & DOROTHY, PYNH BY DEED LIBER 1240 PAGE 116, FILED IN THE RICHMOND COUNTY CLERKS OFFICE ON MAY 20, 1953.
- LAND CONVEYED TO CITY OF NEW YORK BY DEED DOC 467190, FILED IN THE RICHMOND COUNTY CLERKS OFFICE ON MARCH 5, 2013.
- LAND CONVEYED IN DECLARATION REEL 4852 PAGE 318, FILED IN THE RICHMOND COUNTY CLERKS OFFICE ON NOV. 8, 1953.
- LAND CONVEYED TO JAMES T. & MARY, YAKAS BY DEED LIBER 1186 PAGE 245, FILED IN THE RICHMOND COUNTY CLERKS OFFICE ON FEB 14, 1952.
- LAND CONVEYED TO HERBERT BALIN BY DEED LIBER 1393 PAGE 224, FILED IN THE RICHMOND COUNTY CLERKS OFFICE ON JUNE 4, 1957.
- LAND CONVEYED TO CITY OF NEW YORK BY DECLARATION REEL 4852 PAGE 318, FILED IN THE RICHMOND COUNTY CLERKS OFFICE ON MARCH 15, 2013.





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Surveyed By PR, TC	Scale	Sheet No.
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Book No. -		