DECISION DOCUMENT

Former Domsey Fiber Corp Site
Brownfield Cleanup Program
Brooklyn, Kings County
Site No. C224158
October 2012

Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

DECLARATION STATEMENT - DECISION DOCUMENT

Former Domsey Fiber Corp Site
Brownfield Cleanup Program
Brooklyn, Kings County
Site No. C224158
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Statement of Purpose and Basis

This document presents the remedy for the Former Domsey Fiber Corp Site site, a brownfield cleanup site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Former Domsey Fiber Corp Site site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

The elements of the selected remedy are as follows:

1. Remedial Design
A remedial design program would be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

•Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
•Reducing direct and indirect greenhouse gas and other emissions;
•Increasing energy efficiency and minimizing use of non-renewable energy;
•Conserving and efficiently managing resources and materials;
•Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
•Maximizing habitat value and creating habitat when possible;
•Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
•Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Excavation

Track 2 Residential Use Soil Cleanup Objectives (Residential SCOs) as defined by 6NYCRR Part 375-6.8 relevant to the planned use of the site will be used to guide excavation of contaminated soils. On-site soils which exceed the Residential SCOs will be excavated and transported off-site for disposal. In addition, any on-site Underground Storage Tanks (USTs) with associated ancillaries will be excavated and properly disposed of. Approximately 40,000 cubic yards of contaminated soil and historic fill will be removed. Clean imported fill or clean, uncontaminated native soil meeting the requirements of 6 NYCRR Part 375-6.7(d) will be used to replace the excavated soil and establish the designed grades at the site.

3. Vapor Mitigation
Any future on-site buildings will be required to have a sub-slab depressurization system, or a similar engineered system, to prevent the migration of vapors into the building from possible off-site sources.

4. Institutional Control
The remedy will include imposition of an institutional control in the form of an environmental easement for the controlled property that:

- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allows the use and development of the controlled property for residential, restricted residential, commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and
- requires compliance with the Department approved Site Management Plan.

5. Site Management Plan
The remedy will include a Site Management Plan, which includes the following:
a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:
- Institutional Controls: The Environmental Easement discussed above.
- Engineering Controls: The soil cover, if required, discussed in bullet 6 below and the sub-slab depressurization system discussed in bullet 3 above.
This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

- monitoring of groundwater and soil vapor to assess the performance and effectiveness of the remedy;
- a schedule of monitoring and frequency of submittals to the Department.

Contingency Remedial Elements:

6. Cover System
In the event that the Track 2 Residential SCOs cannot be achieved through excavation, the use of the site will then be restricted to restricted residential, commercial and industrial uses and a site cover will be required to allow for the intended use of the Site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or two feet of soil meeting the SCOs as set forth in 6 NYCRR Part 375-6.7(d) and Table 375-6.8(b). The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

Declaration

The remedy conforms with promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration Department guidance, as appropriate. The remedy is protective of public health and the environment.

October 26, 2012

Date

Robert J. Cozzy, Director
Remedial Bureau B

DECISION DOCUMENT

Former Domsey Fiber Corp Site
Brooklyn, Kings County
Site No. C224158
October 2012

SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of contaminants at the site has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal or release of contaminants at this site, as more fully described in this document, has contaminated various environmental media. Contaminants include hazardous waste and/or petroleum.

The New York State Brownfield Cleanup Program (BCP) is a voluntary program. The goal of the BCP is to enhance private-sector cleanups of brownfields and to reduce development pressure on "greenfields." A brownfield site is real property, the redevelopment or reuse of which may be complicated by the presence or potential presence of a contaminant.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repository:

Brooklyn Public Library
Attn: Leonard Street Branch
81 Devoe Street
Brooklyn, NY 11211
Phone: 718-486-3365

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen

participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at http://www.dec.ny.gov/chemical/61092.html

SECTION 3: SITE DESCRIPTION AND HISTORY

Location:
The Site is known as 431 Kent Avenue, and is comprised of a single tax parcel identified as Block 2135, Lot 1. The majority of the property is currently vacant but was previously occupied by Domsey Fiber Corp. The Site is located in the Williamsburg section of Brooklyn (Kings County) and is comprised of a single tax parcel totaling 135,025 square feet (3.09 acres). The lot has 237 feet of frontage on South 11th Street, 490 feet on Wythe Avenue, and 498 feet on Kent Avenue.

Site Features:
The subject site is developed with three buildings as follows.

1. Two-story brick building - (44 South 9th Street) - The two-story brick building is located on the southwest corner of the intersection of Wythe Avenue and South 9th Street. The building was constructed prior to 1935. The building has no basement. The building is vacant, but finished. This building is currently being demolished.

2. Four-story brick building - (36 to 38 South 9th Street) - The four-story brick building is adjacent to the two-story brick building, and fronts the northern portion of the lot that was formerly South 9th Street. The building has three floors and a full basement, which is currently empty. The building was constructed prior to 1918. A small open air alleyway is located between the two-story brick building and the four-story brick building. An old transformer shed is located at the rear of the alley. This building is currently being demolished.

3. Warehouse building - The majority of the lot is developed with a one-story concrete block warehouse building that was constructed in 1959. The southern half of the building is currently utilized by Lucky Supply, Inc., which is a warehouse facility that sells plastic and aluminum food containers. The other half of the warehouse building is currently vacant. The northwestern portion of the warehouse building has a second floor which is set up as office space (also vacant).

Properties located north and northwest of the subject property have recently been developed as residential and mixed residential/commercial properties. Properties to the east and west along Wythe Avenue and Kent Avenue are mixed with commercial and residential properties. Properties to the south consist of older commercial/industrial buildings.

Current Zoning:
In 2002 the subject Site and two additional parcels were rezoned from M3-1 heavy industrial to

R7A–Residential as part of the Domsey Rezoning Conditional Negative Declaration (CEQR No. 00DCP008K).

Historic Uses:
The subject site was utilized primarily for a variety of commercial and industrial uses from the late 1800s to the 1940s. Former on-site commercial/industrial operations included the following; machine shops, a pump works, leather goods manufacturing, pen manufacturing, coffin manufacturing, confectioners, paint and varnish manufacturing companies, a gas appliance manufacturing company, truck and auto repair shops, laboratories, and construction companies. All of the buildings within the footprint were demolished sometime before 1959 (except the two-story and four-story buildings mentioned in the Site Features section, above)and then redeveloped with the warehouse building that currently occupies the site for use by the F and M Schaefer Brewing Co. for warehousing and shipping of beer. The last tenant was Domsey International Trading Co. (used clothing factory), which was reported to have moved in sometime between 1975 and 1986 and left by 2002.

Site Geology and Hydrogeology:
Subsurface soils at the Site consist of a silty, non-native fill with bricks, wood and other rubble which ranges in thickness from 2 feet in the eastern part to 12 feet in the western section of the building. Native fine brown silty-sand is present immediately below the fill material to a depth of approximately 14 feet below grade. The fine silty-sand layer is underlain by a fine to coarse sand and gravel layer to the water table approximately 22 feet below grade.
The elevation of the property is approximately 16-25 feet above the National Geodetic Vertical Datum (NGVD). The topography in the immediate area of the property generally slopes downward from east to the west.

The depth to groundwater beneath the site is approximately 17 to 23 feet below grade within the native silty-sand. Groundwater flow is generally from the northeast to the southwest with some mounding exhibited in the northwest portion of the Site.

The nearest body of water to the subject site is Wallabout Channel (a portion of the East River) located approximately 400 feet to the west.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to residential use (which allows for restricted-residential use, commercial use and industrial use) as described in Part 375-1.8(g) were/was evaluated in addition to an alternative which would allow for unrestricted use of the site.

A comparison of the results of the Remedial Investigation (RI) to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for

the site contaminants is available in the RI Report.

SECTION 5: ENFORCEMENT STATUS

The Applicant(s) under the Brownfield Cleanup Agreement is a/are Volunteer(s). The Applicant(s) does/do not have an obligation to address off-site contamination. However, the Department has determined that this site does not pose a significant threat to public health or the environment; accordingly, no enforcement actions are necessary.

The Brownfield Cleanup Agreement was fully executed on May 22, 2012.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 6.3.

The analytical data collected on this site includes data for:

- groundwater
- soil
- soil vapor
- indoor air

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of

concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. For a full listing of all SCGs see: http://www.dec.ny.gov/regulations/61794.html

6.1.2: RI Results

The data have identified contaminants of concern. A "contaminant of concern" is a contaminant that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized below. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

TETRACHLOROETHYLENE (PCE)	1,3,5-Trimethylbenzene
TRICHLOROETHENE (TCE)	BENZO(B)FLUORANTHENE
Petroleum Products	BENZO[K]FLUORANTHENE
1,2,4-TRIMETHYLBENZENE	BENZ(A)ANTHRACENE

The contaminant(s) of concern exceed the applicable SCGs for:

- groundwater
- soil
- soil vapor

6.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Decision Document.

There were no IRMs performed at this site during the RI.

6.3: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water. The RI report presents a detailed discussion of any existing and potential impacts from the site to fish and wildlife receptors.

Nature and Extent of Contamination:

Soil
Soil and groundwater at the site have been impacted by a release(s) of petroleum, PCE and possibly TCE particularly in the northwest corner of the Site. These contaminants were found to be limited to the top 13 to 15 feet of soil within an approximate radius of 35 feet. The release

scenario is unknown but likely caused by a spill from waste fuel stored in a drum or above ground tank. Waste PCE was likely discharged to the same container resulting in PCE contaminated waste oil being spilled. The released fluid was of insufficient quantity to migrate through the 20 foot soil column to the water table, terminating at a depth of 13 to 15 feet below ground surface.

Groundwater
Groundwater in the location mentioned above also exhibited high SVOC concentrations. This would indicate that this area is not the source of site wide CVOC contamination in groundwater; however, this will be further evaluated as stated in the Elements of the Proposed Remedy section, below. The wide distribution of CVOCs in groundwater may be a function of the limited slope in the water table. Based on the groundwater flow direction and distribution of CVOCs across the Site, a low level CVOC plume appears to be migrating onto the Site from the northeast (upgradient) direction. The results of the subsequent off-site groundwater sampling confirmed that the aforementioned contaminant plume is from an upgradient source.

Soil Vapor
CVOCs are present in soil vapor at elevated concentrations in many areas of the Site. CVOCs are either off-gassing from impacted groundwater and soil on-site or are migrating onto the Site from off-site sources. The highest concentrations of PCE and TCE in soil vapor occurred in locations along the western and eastern property line in the southern section of the Site. However, this does not correspond with the highest concentrations of these contaminants in groundwater or soil which were encountered in the northeast and northwest corner of the Site respectively. In general, CVOC concentrations in soil vapor were higher in perimeter locations than those within the interior of the building.

Indoor Air
CVOCs were present in the indoor air at concentrations comparable to background levels.

6.4: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure.*

Direct contact with contaminants in the soil is unlikely because the majority of the site is covered with buildings and pavement. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. Sampling indicates that soil vapor intrusion is not occurring in the on-site occupied building. However, the potential exists for the inhalation of off-site contaminants due to soil vapor intrusion for any future on-site development.

6.5: Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial action objectives for this site are:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Prevent the discharge of contaminants to surface water.
- Remove the source of ground or surface water contamination.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.
- Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

The alternatives developed for the site and the evaluation of the remedial criteria are presented in the Alternative Analysis. The remedy is selected pursuant to the remedy selection criteria set forth in DER-10, Technical Guidance for Site Investigation and Remediation and 6 NYCRR Part 375.

The selected remedy is a Track 2 Residential Use remedy.

The selected remedy is referred to as the removal of petroleum, CVOC and metals hotspots remedy.

The elements of the selected remedy, as shown in Figure 2, are as follows:

1. Remedial Design
A remedial design program would be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

•Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
•Reducing direct and indirect greenhouse gas and other emissions;
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The remedy will include imposition of an institutional control in the form of an environmental easement for the controlled property that:

• requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
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• requires compliance with the Department approved Site Management Plan.

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- Institutional Controls: The Environmental Easement discussed above.
- Engineering Controls: The soil cover, if required, discussed in bullet 6 below and the sub-slab depressurization system discussed in bullet 3 above.
This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

- monitoring of groundwater and soil vapor to assess the performance and effectiveness of the remedy;
- a schedule of monitoring and frequency of submittals to the Department.

Contingency Remedial Elements:

6. Cover System
In the event that the Track 2 Residential SCOs cannot be achieved through excavation, the use of the site will then be restricted to restricted residential, commercial and industrial uses and a site cover will be required to allow for the intended use of the Site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or two feet of soil meeting the SCOs as set forth in 6 NYCRR Part 375-6.7(d) and Table 375-6.8(b). The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

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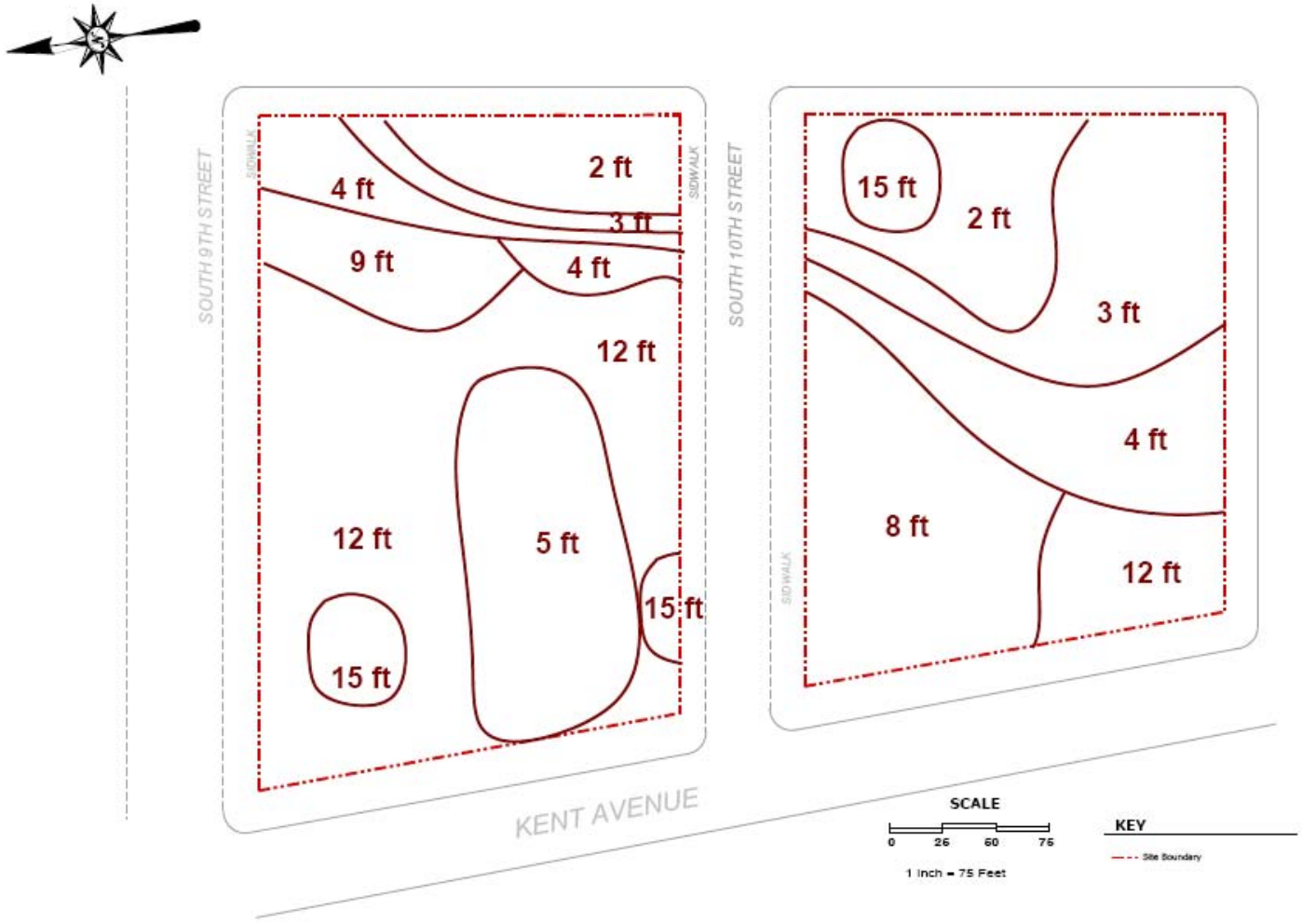
431 KENT AVENUE
BROOKLYN, NY 11211

Figure 1



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FORMER DOMSEY FIBER CORP. SITE
431 KENT AVENUE, BROOKLYN, NY

FIGURE 2 DEPTH OF FILL MATERIALS BELOW EXISTING SLAB GRADE