The City of New York
Department of Sanitation

2014-2015 Winter Snow Plan for the Borough of Queens

Pursuant to Local Law 28 of 2011

Kathryn Garcia, Commissioner
November 2014

FY 15 BOROUGH SNOW PLAN

The Department of Sanitation (DSNY) Borough Snow Plan describes measures DSNY will take to fight winter weather, clear streets for safe transportation, and address issues of public safety related to snow and ice conditions. This document is published pursuant to the requirements set forth under Local Law 28 of 2011.

I. INTRODUCTION

The Department of Sanitation keeps New York City healthy, safe, and clean by collecting, recycling, and disposing of waste, cleaning streets and vacant lots, and clearing ice and snow. A critical component of this mission is to clear snow and ice from New York City's more than 19,000 lane-miles of roadways in a prompt, reliable, and equitable manner.

Winter conditions on the City's roadways introduce potential hazards to all forms of travel. Snow, ice, and other winter weather can impede first responders, temporarily close businesses and schools, and restrict the mobility of all New Yorkers. Snowfall can be expected to lead to the disruption of normal traffic patterns and public transportation. In prolonged or severe snowfall, disruption can last for extended periods of time.

While DSNY makes every reasonable effort to clear snow and ice from the City's highways and streets as quickly and effectively as possible, it can be a lengthy process, particularly when persistent or heavy snowfall occurs combined with falling temperatures and high winds. This Snow Plan concentrates on the planning, organization and response to winter weather conditions, the execution of operational tasks to perform salt spreading on roadways, and the plowing, piling, hauling, and melting of significant snow accumulations from the City's roadways.

II. PLANNING

DSNY's preparation and planning process for winter weather is continuous and ongoing. In the spring and summer, DSNY staff review the approximately 3,000 snow-plowing routes ("Snow Routes") throughout the city and adjust them as necessary based on the prior year's experiences and changes in the physical cityscape (i.e., construction of a new school or hospital). DSNY also performs preventative maintenance on all snow-related equipment and upgrades equipment as necessary.

At the end of each winter season, DSNY's Operations Division performs a review and assessment of its response to all winter storms during the previous season. Operational changes and adjustments, such as improving equipment training and improving communications between snow removal equipment and supervisory personnel, are made as needed.

In the fall, DSNY holds meetings internally to coordinate operations, discuss snow staffing, and plan snow-drill exercises. DSNY also meets with other city agencies to

coordinate asset dedication for its snow operations and to discuss putting City agencies on notice during a Snow Alert. A Snow Alert indicates the type of frozen precipitation, amount expected, temperature and timing of the event as forecasted by weather services contracted by DSNY. As a result of these meetings, DSNY and other City agencies have adopted procedures and made assets available as outlined in Section VI-D, below.

DSNY representatives also attend Community Board district service cabinet and Borough service cabinet meetings to report on DSNY's snow operations plan.

In the months before the snow season begins, DSNY ensures it has adequate equipment, parts and supplies to carry out this Snow Plan. DSNY has established contracts with multiple vendors for the replenishment of salt stockpiles, and salt and calcium chloride are delivered to DSNY storage locations located in each borough. (See Appendix E). Citywide, DSNY has 29 permanent and 10 seasonal salt storage sites, with the capacity to store 238,000 tons of rock salt. DSNY also has 50 calcium chloride locations citywide with the capacity to store 350,500 gallons of calcium chloride. Calcium Chloride system components are inspected and tested prior to snow season to insure pumps, nozzles and associate hardware are fully functional. The Department ensures that it has sufficient snow chains on hand to have an adequate supply for the snow season.

In accordance with a requirements contract for plowing of Tertiary Streets, DSNY conducts inspections of vendors' equipment prior to the snow season to ensure adequate resources that meet contract specifications.

Night Plow season is a specified period of time during the snow season where DSNY increases staffing of personnel on night shifts to ensure sufficient personnel are available to address weather related issues. The Night Plow season begins each year in mid-November, and ends the first Monday in April. During this time period, personnel are scheduled for regular cleaning and collection functions on three shifts (0001 hrs - 0800 hrs, 0600 hrs -1400 hrs, and 1600 hrs -2400 hrs).

Every year, a snow-drill exercise is conducted at the beginning of the Night Plow season to get everyone in "Snow Mode" and identify areas that may need strengthening. This exercise involves all DSNY divisions, including both operational and administrative functions.

III. TRAINING

Training for winter operations is held each year from September through December. Training for Sanitation Workers includes, but is not limited to, spreader operation, attachment of plows and chains, and use of two-way radios and GPS.

Personnel from the Bureau of Motor Equipment and personnel from the Bureau of Cleaning and Collection, together train field personnel on the proper attachment of chains, on the use of the Automatic Traction Control Mud/Snow mode and Inter-Axle Differential Lock (for vehicles equipped with these features), and on proper plow

maintenance. Additionally, plow operators are retrained on how to make proper turns into side streets when ridges of snow are present. Materials are then distributed to personnel to serve as a handy reference for these topics.

In addition, as part of Vision Zero, more than 3,800 Sanitation Workers have attended defensive driving as of the start of the 2014-2015 snow season.

Front end loaders are a vital piece of snow removal equipment. Each year Sanitation Workers are selected for training to operate Front End Loaders at the DSNY training center located at Floyd Bennett Field. Additional classroom training is conducted for instruction on procedures when employing Hired Equipment and "Load and Dump" procedures for hauling and snow disposal operations.

IV. SNOW REMOVAL PRIORITY DESIGNATION CATEORIES

To formulate an effective snow removal response, roadways are categorized and serviced in the following order: Primary, Secondary and Tertiary streets. Each year, street designations are reviewed and updated in accordance with the DSNY Public Street Snow Removal Classification criteria. New Yorkers can view a map of street priority designations by visiting http://www.nyc.gov/dsny and clicking on "Snow Plans & Mapping."

In the past, DSNY has designed three classes of routes to match the three priority designation categories. In 2014-2015, DSNY will pilot routes in some parts of the city to have just two distinctions: critical and sector. Dead-end roadways and those requiring specialized equipment will be placed on separate routes to be serviced by specialized pieces of equipment. The Department believes that this "Snow Sectoring" initiative will achieve routing efficiencies by eliminating some redundant travel mileage between street segments on a given route. In a heavy storm with significant expected accumulation, the Department will begin plowing both critical and sector routes at the same time, providing more timely service for many residents. For the 2014-2015 snow season, the following community districts are participating in the Snow Sectoring pilot:

- All of Manhattan (Districts 1 to 12)
- All of Staten Island (Districts 1 to 3)
- Bronx District 6
- Brooklyn District 8
- Queens District 6

With the exception of districts included in the pilot program mentioned above the plowing and spreading of salt to treat icy road conditions will be undertaken in order of strategic priority as follows:

Primary - Any street that is:

1. A main traffic artery, main thoroughfare or a lifeline street such as highways, expressways, drives or bridges;

2. A feeder approach to and exits from bridges, tunnels, ferries, highways, airports;
3. A bus route;
4. A street used to access facilities such as FDNY fire houses and EMS stations, NYPD police stations, hospitals, nursing homes, newspaper plants, fuel distribution depots, transportation terminals, schools, and universal pre-kindergarten facilities; and/or
5. Within concentrated food-produce, industrial, financial, theatrical-amusement, shopping, hospital or maritime (passenger and freight) areas.

Secondary - Any street that is:

1. Reasonably heavily trafficked but not a primary street;
2. Used as an alternate route for a primary street; and/or
3. A short residential street that feed into primary streets.

Tertiary - All other streets not heavily trafficked and not primary or secondary streets, including, but not limited to dead-end streets.

When viewing the PlowNYC map found at http://www.nyc.gov/dsny all roadways will display the three classes of routes Primary, Secondary and Tertiary regardless of a districts participation in the pilot program.

V. ASSIGNED EQUIPMENT AND PERSONNEL

For a full list of equipment and personnel assigned to each district, see Appendices A and B.

VI. IMPLEMENTATION

The following is a step-by-step overview of how DSNY fights an impending snowstorm.

A. Forecast and Preparation

DSNY's Operations Office monitors the weather forecasts through the contracted weather reporting services 24/7. The following three services will be contracted for the 2014-2015 Snow Season: Accu Weather, Compu Weather, and Metro Weather.

When a risk of snow is indicated by the forecast, the Bureau Operations Chief will brief the Commissioner, First Deputy Commissioner and Bureau Director. At this stage the First Deputy Commissioner will consider the need to activate personnel for snow response. If the forecasted amount of frozen precipitation would result in the need to deploy plows, personnel are re-scheduled into two 12 hour shifts (normally 0700 hrs – 1900 hrs and 1900 hrs – 0700 hrs). During these situations, regularly scheduled days off for Sanitation Workers and Uniformed Officers are cancelled to ensure maximum personnel availability. DSNY formulates staffing needs 24 hours in advance of snowfall based on weather forecasts and other factors.

After an assessment is made as to the necessary action, DSNY will issue a "Snow Alert" informing Department personnel, the Mayor's Office, and other City agencies of a pending snow event. In addition to receiving the snow alert, DEP, DOT and DPR may be notified of the need for their resources to address the pending snowfall if forecasts warrant. (See Section VI-D for City agency responsibilities).

DSNY's Bureau of Public Affairs will issue a '"snow alert declaration" to all media and the public via a news advisory and all social media channels. Such advisories will also be posted on OEM's New York City's Severe Weather page, available at: http://www.nyc.gov/severeweather. Subsequent weather forecasts are monitored, and DSNY's Operations Office maintains ongoing communication with contracted weather forecasting services.

Before the storm, Department staff prepares equipment to begin snow fighting operations. This may include loading spreaders with salt and calcium chloride, attaching plows to spreader equipment and vehicles used for plowing, and attaching chains to spreaders and vehicles used for plowing, based on precipitation type and the amount of precipitation forecasted. Based on forecasted conditions, vendors with which DSNY has entered into requirements contracts may be contacted to prepare for plowing of tertiary streets and/or piling and hauling.

In the hours prior to snowfall, weather condition reports are submitted hourly from the DSNY's twenty one field weather stations located at DSNY facilities. Salt spreaders are equipped and pre-positioned to begin operations at the first trace of precipitation.

B. Salting and Plowing Operations

At the first trace of snow or frozen precipitation, salt spreaders begin dispensing salt on roadways. Spreaders are DSNY's first line of defense against snow and ice conditions. Large spreaders have plows attached and have the capacity to hold approximately 16 tons of salt. Spreaders are equipped with tanks of liquid calcium chloride for pre-wetting salt to enable the melting of snow and ice at lower temperatures. Each spreader can hold up to 180 gallons of liquid calcium chloride.

Plowing operations begin when snowfall exceeds two inches. Plowing clears snow from the roadways, moving it out of the way of the path of moving traffic. Plow blades are fixed to the right to avoid blocking oncoming traffic and keep intersections clear. Plows must follow their designated routes in the proper order, or they may miss some street segments. As a result, plows cannot be diverted from routes to resolve customer complaints until after snow has stopped falling and assigned roadways are clear. After streets have been addressed, municipal parking lots, bike lanes, and pedestrian infrastructure are also cleared of snow.

DSNY also deploys specialized equipment as needed to meet local conditions. V-plows are deployed to areas where drifting or considerable accumulations of snow have made plowing too difficult for truck plows alone. Utility haulsters are small spreaders with plows attached for treating areas with limited accessibility. These

spreaders can hold approximately 2 tons of salt. Front end loaders are used for salt loading, snow plowing in narrow streets, and snow hauling operations.

If snow accumulation is forecasted for six or more inches, DSNY may activate Tertiary Plowing Requirement Contract vendors (see Appendix G) to report and assist with DSNY plowing operations. Once notified, these contractors are required to respond with plow equipment within eight hours. In addition, the Department may activate emergency hired equipment contracts as needed.

C. Situational Awareness

DSNY maintains situational awareness throughout a storm using a range of technologies and channels of communication. Department officers monitor operations in the field, and district offices submit progress reports on the status of spreading and plowing operations.

DSNY headquarters, located at 125 Worth Street in Manhattan, maintains a Radio Control Center. All spreading and plowing equipment are outfitted with two-way radios and GPS to maintain communication with Supervisory personnel, Borough Commands and the Radio Control Center throughout the event. In 2014, DSNY installed new GPS units on all snow-fighting equipment to improve the quality of signal and the accuracy of data received during snow operations. DSNY has also installed these units in DOT, DPR, and DEP units that may be assigned to DSNY during storms. This will allow DSNY to track all resources engaged in snow fighting efforts.

Radio communication is DSNY's best tool for relaying orders and information to and from the field during a storm. Each Borough Command transmits on a separate assigned radio talk group. Additional talk groups may be utilized to alleviate radio traffic during emergency situations.

When the Office of Emergency Management Emergency Operations Center (EOC) is activated in response to a snow event, DSNY will send the following representatives to liaison and coordinate with OEM officials and representatives of other city agencies.

Days	Nights
Gerald Carannante, **Assistant Chief**	**Frank Scarpaci,** **Assistant Chief**
David Trupia, **Superintendent**	**James Carney,** **Supervisor**

DSNY coordinates with other City agencies through OEM as to the needs of those agencies including, but not limited to, emergency vehicles, NYCHA developments, hospitals and other areas. This coordination will continue through the EOC throughout the snow event. DSNY also embeds staff in the NYPD and DOT command centers to monitor those agencies' camera feeds in real time.

D. Other City Agencies

City agencies are responsible for clearing snow from their own facilities in order to comply with their Charter-mandated responsibilities. During a snow event, DSNY is in constant contact with OEM and other City agencies. In some cases, DOT, DPR, and DEP may provide plowing equipment and operators to DSNY, as described below. Should an emergency situation necessitate such action at an earlier stage, OEM will coordinate the reallocation of resources.

DOT: The Department of Transportation provides truck plows with operators. (See Appendix F). When plowing operations are completed, these trucks may also assist in snow hauling operations. During a snow event, DOT will send a representative to DSNY Operations Command Center to facilitate coordination between DSNY and DOT. All DOT employees assigned will be directed by DSNY personnel. DOT services the four lower East River Crossings and calls upon DSNY to assist as necessary during a snow event.

CEMUSA, DOT's bus shelter contractor, is responsible for maintaining and clearing the interior of bus shelters. During a snow event, CEMUSA will send a representative to OEM to liaison and coordinate snow removal from bus shelters.

DEP: The Department of Environmental Protection provides plowing assistance after completion of snow removal work at DEP locations (See Appendix F). DEP also advises DSNY on sewers suitable to support snow melting operations.

DPR: The Department of Parks and Recreation provides plowing assistance after completion of snow removal work at DPR locations (See Appendix F). When necessary, DPR supplies light duty vehicles with plows, which are able to perform snow removal work after initial large accumulations have been cleared by heavy-duty DSNY plows. In addition, DPR provides Front End Loading equipment as necessary to assist during piling and hauling operations.

NYPD: DSNY meets with NYPD to exchange contact information with the NYPD Traffic & Tow and Highways Divisions and to review the use of NYPD tow trucks during and after heavy snow.

FDNY / EMS: The Tow Truck Task Force, which is coordinated through OEM, may involve the use of Front End Loaders from DSNY to clear snow from streets to provide access for NYPD tow trucks to tow snowbound ambulances.

MTA: DSNY attends the MTA's Annual Snow Operations Meeting to discuss issues and concerns going into the new snow season. MTA submits priority locations for DSNY salting and plowing, including turn-around locations for bus lines.

Port Authority & TBTA: The Port Authority of NY & NJ is responsible for managing bridges and tunnels between New York and New Jersey as well as airports in New York City and Northern New Jersey. The Triborough Bridge and Tunnel Authority (TBTA) manages the toll bridges and plazas within New York City. Although DSNY does not

directly coordinate with the Port Authority or the TBTA, those authorities have seats at OEM's Emergency Operations Center and are in constant contact with City agencies during a snow event. If necessary, DSNY will assist as able.

E. Customer Service

311 is New York City's single number for non-emergency services and information about City government, including information and services related to snow events. DSNY has worked very closely with the City's 311 Customer Service Center to provide a medium for public information and when appropriate for registering service requests and complaints related to snow events. The data and information from 311 is regularly received by DSNY officials. Service requests and complaints go directly to the relevant sanitation district field office for review and appropriate action. Throughout snow events the DSNY Division of Customer Service and Government Relations sends regular updates to 311 about snow operations, laborer and private equipment hiring, enforcement of sidewalk clearing responsibilities and collection service.

During the snow event, 311 uses Rapid Service Requests, allowing customers to submit reports of locations of concern during DSNY snow operations. Because DSNY is actively salting/plowing snow or ice from highways, roadways and streets, it cannot respond to individual plowing or spreading requests. This information is used to provide an overview of the storm situation and snow operations. These locations are mapped periodically during and immediately after the storm, and these maps are used to evaluate the effectiveness of snow operations and allocate resources as necessary.

After the conclusion of the snow event, once the Mayor and/or the Commissioner has announced that snow clearing operations have concluded, all complaints and service requests are sent immediately from 311 directly to the Sanitation District and/or Enforcement Zone for action. The local district supervisors determine priority needs based on street designations (see Section IV) and local conditions.

The following are examples of complaints and/or service requests received by 311: (1) unplowed streets (those streets where it is apparent that a plow has missed the location); (2) conditions where a plow has been down a street but residents have been throwing snow into the street creating new conditions; (3) isolated serious icy patches on streets; (4) conditions caused by post-storm freeze/thaw cycles; (5) icy conditions not caused by a storm or natural event; and (6) enforcement service request for failure to clear snow/ice from sidewalk area.

The following Department representatives from the DSNY Customer Service & Government Relations office are available to liaison with government and elected officials and community boards regarding snow events by providing updates and maintaining communications. The Division of CSGR also serves as liaison to the City's 311 Customer Service Center.

Maria Termini, Associate Commissioner, Division of Customer Service & Government Relations

Henry Ehrhardt, Director, Customer Relations, Division of Customer Service & Government Relations

New Yorkers can use the PlowNYC online mapping tool to track the progress of DSNY snow operations throughout the five boroughs. PlowNYC is activated when DSNY snow clearing operations begin. When PlowNYC is active, residents are able to access a map displaying city streets that have been serviced by DSNY snow clearing equipment. Streets are color-coded based on the amount of time that has elapsed since a plow or spreader last passed down the street, and the map is updated every 15 minutes. In 2014, DSNY and the Department of Information Technology and Telecommunications introduced new processing methodologies to improve the accuracy of the PlowNYC service. To access PlowNYC, go to: http://www.nyc.gov/severeweather.

NYC Service has taken on the role of assisting organizations such as local not-for-profit organizations, civic organizations and community groups to establish registries of recruited volunteers willing to help remove snow on behalf of persons who are unable to do so due to infirmity, illness or disability.

F. Snow Clearing Operations

Spreading and plowing operations continue until all public streets are serviced.

After precipitation ceases, piling operations begin as needed. When snow accumulations approach the 6 to 8 inch range, the operation of piling follows plowing. Snow is plowed to keep main arteries open. This ridge created is then pushed into piles for scheduled removal. DSNY updates piling routes as needed each season.

DSNY has an established requirements contract for supplemental snow piling and hauling equipment that includes equipment for the incidental towing of vehicles. (See Appendix H). With this contract, contractors will be expected to have equipment readily available for DSNY employment throughout the snow season.

DSNY does not pile snow to be left on the public streets. Piles temporarily made by DSNY are hauled to approved snow disposal locations and left to melt or are transported to snow melter locations to be melted. Additional piles made by the public should be reported to 311 for DSNY removal.

Snow melters are staged in pre-determined locations. DSNY has 29 small melters each capable of melting 60 tons of snow per hour. Seven larger “mega-melters” are each capable of melting 135 tons of snow per hour. Melters are used in conjunction with hauling operations. Water from the melted snow is discharged directly in to sewers approved by DEP. (See Appendix C for approved locations).

Additional snow disposal locations during hauling operations to expeditiously remove piles of snow from streets to a location where snow can be piled and left to melt. (See Appendix D for authorized snow disposal locations).

Alternate side parking regulations may be suspended before, during, or after a snow event. After roadways have been serviced and the temperatures are expected to be above freezing, the process of clearing snow from street cleaning routes begins. Alternate side parking regulations will be reinstated to facilitate this process. A combination of front end loaders, plows, spreaders and haulsters may be used to clear snow away from curbs.

G. Clearing Pedestrian and Bicycle Infrastructure

After salting and plowing operations have stopped, DSNY addresses snow and ice removal from bike lanes, pedestrian overpasses and step streets, bus stops and crosswalks. In 2014, DSNY has added 50 skid-steer loaders to more quickly and efficiently clear these areas. (See Appendix B).

DSNY employs individuals as temporary snow laborers to clear crosswalks, pedestrian curb cuts, catch basins, paths for loading and unloading at bus stops, and some pedestrian overpasses. All work performed by temporary snow laborers is supervised by DSNY supervisors. Once DSNY issues a request for temporary snow laborers to report for duty, laborers typically report at 8 A.M. at the district garage where they initially registered. In cases where there are insufficient temporary snow laborers who report for duty in a specific district during a major snow event, temporary snow laborers from nearby district garages will be transported to assist in the manual snow removal efforts of the district where there is a shortage and transported back at the end of the work shift to their original assigned garage where they reported for duty. DSNY supervisors monitor conditions of areas that have been shoveled. Laborers will be re-deployed to address that may be re-covered by subsequent plowing.

Each year in October DSNY seeks individuals interested in registering as temporary snow laborers during major snow events via its website and through the media, and by providing information through 311 upon request. Persons interested in becoming a temporary snow laborer can register at any local district garage between the hours of 7 A.M. to 3 P.M. The rate of pay begins at $12 per hour and increases to $18 per hour, after completing the first 40 hours in a given week. Applicants must be at least 18 years of age, eligible to work in the United States, and capable of performing heavy physical labor. All applicants must bring two small photos, and original and copies of two forms of identification together with their social security card at the time of registration.

Citibike is New York City's bike sharing system and is operated by NYC Bike Share LLC (NYCBS). NYCBS is required to remove snow from a six foot radius around bike stations. This will help create an adequate buffer around which DSNY plows can navigate. NYCBS will be responsible to remove any snow that is inadvertently plowed against Bike Share stations. In cases where severe snow storms are predicted, NYCBS will be responsible for removing bikes and deactivating stations in advance.

APPENDIX

A

ASSIGNED SNOW PERSONNEL BY DISTRICT

The following reflects planned personnel to respond to snow events.

Personnel available from other units such as Solid Waste Management and Lot Cleaning will be assigned to Boroughs on a citywide basis as needed.

Queens West Borough Chief - Thomas Albano				
DISTRICT	**ADDRESS**	**G/S**	**SUPV**	**S/W**
BORO OFFICE	52-35 58th STREET			
QUEENS WEST 1	34-28 21st STREET	1	8	75
QUEENS WEST 2	52-35 58th STREET	1	6	76
QUEENS WEST 3	52-35 58th STREET	1	6	68
QUEENS WEST 4	52-35 58th STREET	1	6	61
QUEENS WEST 5	48-01 58th ROAD	1	8	85
QUEENS WEST 6	58-73 53rd AVENUE	1	6	58
QUEENS WEST 9	132-05 ATLANTIC AVENUE	1	6	79
QUEENS WEST 5A	58-02 48TH STREET			
	TOTAL	**7**	**46**	**502**

Queens East Borough Chief - Steven Sokolowski				
DISTRICT	**ADDRESS**	**G/S**	**SUPV**	**S/W**
BORO OFFICE	120-15 31st AVENUE			
QUEENS EAST 7	120-15 31st AVENUE	1	12	199
QUEENS EAST 8	130-23 150th AVENUE	1	10	109
QUEENS EAST 10	130-23 150th AVENUE	1	6	88
QUEENS EAST 11	75-05 DOUGLASTON PKWY	1	14	154
QUEENS EAST 12	130-23 150th AVENUE	1	10	133
QUEENS EAST 13	153-67 146th AVENUE	1	14	162
QUEENS EAST 14	51-10 ALMEDA AVENUE	1	6	65
	TOTAL	**7**	**72**	**910**

GRAND TOTAL	**14**	**118**	**1412**

APPENDIX

B

DSNY INVENTORY OF AVAILABLE SNOW MANAGEMENT EQUIPMENT

BORO	DIST.	Large Spreader	Utility Haulster	Plowable Trucks	Front End Loaders	Plow Blades Assigned	V-Plows Assigned	Skid Steers	Snow Melter Small	Snow Melter Large
QUEENS WEST	1	8	2	49	3	68	5			
	2	7		35	7	45	4	2		
	3	7		38	3	48	5	2		
	4	7	1	34	2	51	2			
	5	10	2	56	3	66	13			
	6	7		34	1	47	4	2		
	9	7	2	40	2	53	6			
	BORO								3	1
	TOTALS	53	7	286	21	378	39	6	3	1

BORO	DIST.	Large Spreader	Utility Haulster	Plowable Trucks	Front End Loaders	Plow Blades Assigned	V-Plows Assigned	Skid Steers	Snow Melter Small	Snow Melter Large
QUEENS EAST	7	19	2	85	8	96	16	1		
	8	14	1	44	4	70	11	1		
	10	7	1	43	4	64	11	1		
	11	20	1	63	6	105	14	1		
	12	14	2	71	4	81	15	1		
	13	18	2	83	13	113	13			
	14	5	2	37	2	44	7	1		
	BORO								3	1
	TOTALS	97	11	426	41	573	87	6	3	1

APPENDIX

B (continued)

BOROUGH RECAP	BORO	Large Spreader	Utility Haulster	Plowable Trucks	Front End Loaders	Plow Blades Assigned	V-Plows Assigned	Skid Steers	Snow Melter Small	Snow Melter Large
	QW	53	7	286	21	378	39	6	3	1
	QE	97	11	426	41	573	87	6	3	1
	TOTAL	150	18	712	62	951	126	12	6	2

APPENDIX

C

Snow Melter Staging Areas

DEP locations (Pending approval)

Location	From	To
19th Avenue	45th Street	47th Street
50th Street	56th Road	
54th Avenue	Maurice Avenue	Midtown Expressway
57th Avenue	80th Street	74th Street
Baisley Boulevard	North Conduit Avenue	Rockaway Boulevard
38th Avenue	138th Street	
Booth Memorial Avenue	164th Street	Meadow Road
168th Place	88th Avenue	

D

Authorized snow disposal locations:

- Astoria Park 19th Street and Hoyt Avenue N
- Forest Park : Bandshell
- WFM Parking Lot Adj. Harper Street
- Cunningham Park : Upper Lot
- Idlewild Park 149th Street ad Springfield Blvd
- Forest Hills High School 67-01 110th Street
- W/S GCP Service Rd and 66th
- Rockaway Beach Blvd and Ocean Avenue

E

Salt and Calcium

There are (10**)** salt storage sites.
Usable capacity is **(60,100)** tons.

There are **(15)** tank locations for the storage of calcium chloride.
Total storage capacity is **(103,000)** gallons.

F

OCAs

DOT will provide **(36)** truck plows with operators.
DEP will provide **(3)** truck plows with operators.
DPR will provide **(10)** truck plows with operators.

APPENDIX

G

Tertiary Plowing Contracts

CSB Contractors	Minimum Pieces of Equipment
District 1	1
District 2	1
District 3	1
District 4	3
District 5	1
District 6	1
District 9	1
District 10	2
District 14	1

Natural Landscape	Minimum Pieces of Equipment
District 7	11
District 8	5
District 11	8
District 12	10
District 13	11

H

Piling and Hauling Contracts

	Minimum Pieces of Equipment
Madd Construction	3
Natural Landscaping	4
Picco Construction	8
T & D Associates	4
American Auto Body	2
Inter County Towing	4
Triangle Towing	3