

VAN CORTLANDT PARK

Area.—Van Cortlandt Park has an area of 1,132.25 acres.

Means of Access.—Broadway branch of the Subway, direct to the park.

Broadway surface line, which runs along the entire westerly boundary of the park, crossing the City line, and extending into Yonkers via South Broadway.

Jerome Avenue cars of the Union Railway, which cross Mosholu Parkway, skirt the southeasterly boundary of the park, cross the northeasterly portion, and run into Yonkers via Central Avenue.

The crosstown cars of the Union Railway intersect the Jerome Avenue line at many points where transfers are given.

Putnam Division of the New York Central Railroad (terminal at 155th Street station of the Sixth and Ninth Avenue elevated railway, Manhattan) to Van Cortlandt station in the park.

Special Features.—A big stretch of forest land that invites the rambler, a lake for the canoeist and the oarsman, extensive grounds that afford opportunity to enjoy as participant or spectator, all manners of out-door sports, elaborate formal gardens, and historical buildings, relics and associations:—all these are features that make Van Cortlandt Park a park of unique value.

Golf.—Until 1914, there has been but one 18-hole golf course in this park. This course comprises 5,342 yards, and covers 77 acres. It is known as the "Van Cortlandt Course." It is picturesquely located in the Tippetts Brook Valley, extending for some distance along the easterly shore of Van Cortlandt Lake.

During the present year, a new 18-hole golf course, comprising 5,053 yards, and covering 72 acres, has been completed. This course is known as "The Mosholu Course," and is pleasantly and conveniently located on the highest portion of the park.

Golf House.—On the shore of the lake, and convenient to the first Tee of the Van Cortlandt Course, the Department maintains a golf and locker house. In this building is a section containing 490 lockers for men, and two shower baths, and 32 polo lockers for the use of the members of the New York State National Guard, who play polo in this park; and a section containing 80 lockers and two shower baths, for the use of women.

Water Sports.—There is a long narrow lake that covers some 16½ acres. There are boats and canoes on this for rent. In the winter, it is used for skating, the golf house being used as a skate house. Curling matches are also engaged in here.

Baseball and Other Sports.—There are 12 baseball fields. There are 8 tennis courts; 4 on the Gun Hill Road, 2 on the parade field, and 2 on the new golf links. During the Fall season, the baseball fields are used for football. There is a 59 acre parade ground, a 32 acre polo field, a cricket field, and a cross-country course six miles in length, over which the Junior and Senior Individual and Team Cross-country championship of the Metropolitan Association of the A. A. U. was run.

Colonial Garden.—A very beautiful feature in this park is the formal Colonial Garden in front of the Colonial Mansion, comprising about 3½ acres. In the center of it is a handsome marble fountain, surmounted by the coat of arms of the City of New York, and the sides of which represent the coats of arms of the Thirteen Original States. This fountain was presented to the City of New York by Mrs. Frederick F. Thompson, at a cost of \$14,000.

Van Cortlandt House, and Other Historical Features.—The Van Cortlandt House is one of the old houses within the area of Greater New York. It is still in excellent condition. It is in the custody of the "Colonial Dames of the State of New York." This society has gathered a very interesting collection of Dutch and Colonial household furniture and utensils, arms and documents. It is open to the public every day in the week, including Sundays, and admission is free, excepting on Thursday, on which day 25 cents admission is charged, which includes a cup of tea served in the old kitchen.

Historical Associations.—The land comprised in Van Cortlandt Park was originally

permitted to raise vegetables. Each child is assigned a plot 6 feet by 12 feet. There are 288 of these plots. The children furnish their own seed and utensils, and, of course, keep the produce. The department plows the ground in the Spring. The "school farms" are under the supervision and direction of the park foreman, the same as are the playgrounds.

Improvements.—The first playground to be established in the parks of the borough was the one in this park. This playground was enclosed with a heavy galvanized iron fence 396 feet long on two-inch galvanized iron post, and a privet hedge six feet high was planted, to screen the playground from the rest of the park. The ornamental iron fence 4,800 feet long and 5 feet high, enclosing this park, was repaired, cleaned and painted. 5,700 feet of dirt sidewalk on the 149th Street side of the park was covered with steam ashes. An artificial skating pond 600 feet long by 150 feet wide was constructed. The music stand was repainted, and permanent seats for the accommodation of 40 people were installed.

The large two-story brick building used as a comfort station was repaired to a considerable extent, and painted inside and outside. The toilet arrangements in this house, for both men and women, were renovated and enlarged in such a way as to make them far more sanitary than they previously were, and increased to twice their former capacity.

During the year, 5,240 flowering plants were set out in beds.

Christmas Tree.—This year, for the first time in the history of the Department, a Christmas Tree was erected in St. Mary's Park, in co-operation with the Parks and Playgrounds Association.

This tree was erected upon a platform, and stood about fifty feet above the ground; it was covered with three hundred electric lights, the current for which was contributed by the Edison Company.

The Department allowed the use of the park for the purpose, and Commissioner Whittle contributed the tree.

Miss Madeline L. Stevens, Play Supervisor of the Parks and Playgrounds Association, supervised the carrying out of the project, and to her in large measure is due the wonderful success of the occasion.

Public subscriptions were taken through the newspapers of the borough, and \$50 in cash was realized in this way.

In the afternoon of the day before Christmas athletic games were played by the children in the playground, and two hundred toys were given as prizes to the winners of the different contests.

In the evening three thousand cornucopias and packages of candy were distributed among the children present. It was estimated that more than five thousand children and older persons came to the Christmas Tree on Christmas Eve.

The tree was kept in its place and lighted each night from Christmas to New Year's.

ST. AUGUSTINE PARK

This park has an area of 0.25 acres, and is located at the junction of 166th Street, Fulton and Franklin Avenues.

Improvements.—Early in the year, the unsightly stone wall which was formerly located on the westerly side of this park, eight feet above grade, was taken down, and a rock-faced ashlar wall, 74 feet long, and with a stone coping 20 inches wide, was erected in its place. The new wall is 5 feet 6 inches high, and the bank above it was graded with top soil and seeded.

During the year, the Department set out in this park 27 trees, 156 shrubs, and 1,840 bedding plants.

UNIVERSITY PARK

This park has an area of 2.75 acres, and is located on the Harlem River slope in front of the grounds of the New York University.

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Historical Associations.—The land comprised in Van Cortlandt Park was originally

included in a vast tract, having at first no particular bounds, under the control of the Dutch West India Company. This company acquired a formal title originally from the Indian proprietors, the tribe called the Manhattans, the Indian overlord or chief of which was Tackareek, whose campfire burned on the heights of Nevisane, the region now known as Navesink Highlands.

The first individual owner of the tract was Adriaen Van der Donck, who acquired it from the resident governor of the Dutch West India Company, Governor Kieft, in 1646. Van der Donck was further required at this time to obtain the consent of the Indians to the formal transfer of the property to him.

He planned to colonize it, and erect there his "bouwerie."

While he evidently did succeed in cultivating his land to a small extent, his larger plans for its upbuilding were never carried out. He had a planting field, which for many years after was known as Van der Donck's planting field, on what is now the parade ground of Van Cortlandt Park. His first house was erected on the banks of the Neperhaem, now called Saw Mill River, in Yonkers, that name being derived from the sawmill which he operated there for some years.

The ancient cellar ruins recently uncovered in the park, near the Van Cortlandt House, could not have been those of a house erected by Van der Donck, as some have claimed; but were either the ruins of an ancient block-house, or, more probably, were those of the house of George Tippet, which he, describing it as his "home lott," sold to Jacobus Van Cortlandt in 1732. Whatever, if anything, Van der Donck built on this site, was at best nothing more than a farm hut, and was certainly destroyed in the Indian uprising of 1655; when they threatened to "wipe out the Dutch," and too well, indeed, did they keep their word.

He had obtained from the States General the authority to devise his property or Colony of Colen-donck; and upon his death left it to his widow, who was the daughter of Francis Doughty, an English clergyman, who for certain alleged heretical tenets, had been driven out of the English Colony along the Connecticut, and who had been given safe harborage by the Dutch on Long Island, near Flushing. His widow transferred the Colony of Colen-donck to her brother, Elias Doughty, of Flushing.

Doughty disposed of it mainly in three parcels; the first parcel, comprising the southerly part of the Manor, and including part of the planting field, and that part of the park where the old Van Cortlandt house now stands, to Wm. Betts and his brother-in-law, George Tippet, in the year 1668. This is the only one of Doughty's sales that need interest us, George Tippet's name being perpetuated in the stream that runs the entire length of the park.

The Van Cortlandts first began to acquire the property in the year 1696, Jacobus Van Cortlandt in that year buying 320 acres. Having acquired various other parcels of land in the vicinity, largely from Tippet's and Betts' heirs, Jacobus Van Cortlandt planned to dam the brook called by the Indians Muskota, and by the white settlers Tippetts, forming a lake and erecting a sawmill and gristmill. This was in the year 1718. These mills, principally the gristmill, served the people of the community for more than a century and a half following. The community suffered a loss historically when the mills were destroyed by lightning and fire in the year 1901.

When Jacobus Van Cortlandt acquired the property on which the Van Cortlandt House now stands, which was in the year 1732, George Tippet, who sold it to him, stipulated that the burying ground included in the tract transferred, "which having originally been, and still is, for the use of a cemetery or burying place," should be held out and reserved for such use to him, his heirs and assigns. This is the little old burying ground on the shore of the lake, to the east of the Van Cortlandt House. There are a few old tombstones in it now, almost undecipherable, but some can be yet distinguished as those of Tippet's ancestors and descendants.

The present Van Cortlandt House was erected by Frederick Van Cortlandt in the year 1748. He also built a vault and family burying ground, located on what is now known as Vault Hill in the park. His will (probated in 1751) directs that his body should be buried

there. This vault was used during the Revolution to hide away certain papers and documents and public records from the British, Augustus Van Cortlandt being at that time Clerk of the City of New York.

Practically every foot of land in the park was fought over during the Revolutionary War. First occupied and ranged over by the American troops as they manœuvred and fought for the passes at Kingsbridge, and afterwards occupied by the British, as they, by weight of numbers, gradually forced the American defenders back.

During one period of the Revolution, the House was the headquarters for the Hessian Jaegers. In one of the rooms, Captain Rowe, of the Pruicsbank Jaegers, expired in the arms of his bride-elect, having been mortally wounded in an engagement with the patriots in the Tippet Valley.

Close by the Van Cortlandt House, to the east, is to be seen an old window, taken from the "Sugar House," the old warehouse in Duane Street, which was built in 1763, and which was used during the Revolutionary War by the British as a prison for the American soldiers.

In the northeastern part of the park is Indian Field. An impressive cairn of stones and a tablet mark the spot where on August 31, 1778, a British cavalry squad under Simcoe defeated a party of Stockbridge Indians who were fighting on behalf of the patriots. Eighteen of them including their chief Nimham were buried almost where they fell.

In 1781, Washington built camp fires on Vault Hill, to deceive the British, while he was withdrawing his troops to Yorktown. The Van Cortlandt house is credited with having harbored General Washington on two occasions. First, in the year 1781, when Washington was examining the ground about Kingsbridge, and directing its fortification and defense; and on the second time, on the 12th of November, 1783, a far more auspicious occasion, as the next day he rode victorious across Kingsbridge on his way with his troops to repossess the City, from which he had been forced to retreat several years before.

Improvements.—The macadam roadways measuring 13,667 square yards were repaired during the year, as were also 8,330 square yards of gravel roads. In this work 1029.2 cubic yards of broken stone and 410 cubic yards of screenings were used.

The Department also treated with asphaltic oil 8,833 square yards of macadam roadway, and with coal tar and grits 23,430 square yards, some portions of this latter area receiving two coats. In this work 3,600 gallons of oil, 15,618 gallons of tar, and 1,406 cubic yards of grits were used. Also throughout the year, many holes in the macadam pavement were patched, the department using 150 gallons of road binder in such work.

The annex to the Van Cortlandt House for the use of the custodian was finished and occupied.

A new walk 10 feet wide and 250 feet in length, encircling the annex to the Van Cortlandt House, was excavated and filled with Telford stone, and the small garden between the annex and the Van Cortlandt House was filled in with top soil and bordered with privet and box hedge.

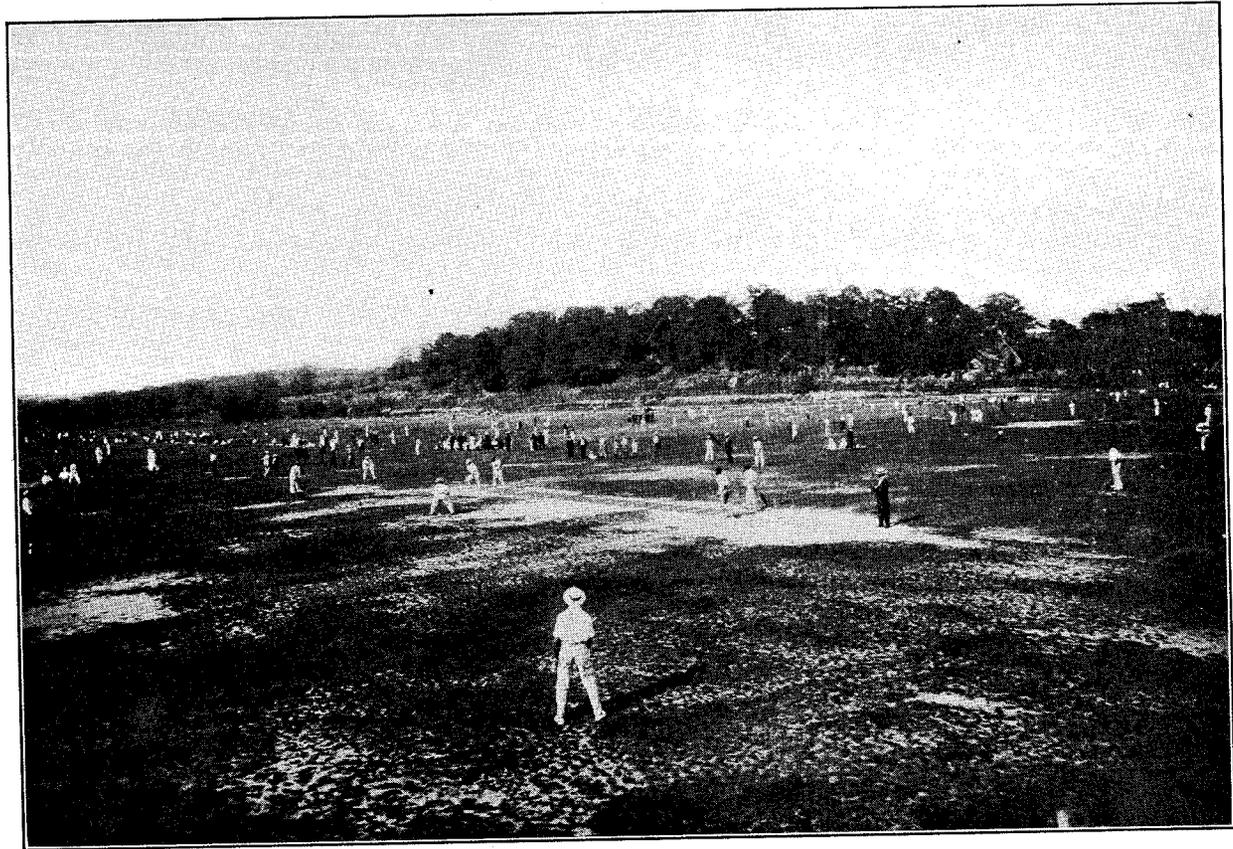
In the boat house, new floor beams and flooring were laid. The golf house, the boat house and the Tremper House, the refreshment stand near the first tee of the Van Cortlandt Golf Course, and the curler's house, were repainted.

The music stand was repainted, and stationary benches for the accommodation of 60 people were constructed. On the new Mosholu Golf Course, 1,100 feet of trench was dug, and a two-inch iron pipe was laid, to carry water for drinking, to irrigate the putting greens, and for protection against fire in the tool house in which the department stores its auto lawn mowers.

A toboggan slide 50 feet wide and 500 feet long was built.

The 18 acres of marsh land south of Van Cortlandt Avenue were surveyed, and a map, and estimate of the quantity of material required for filling in and grading these marsh lands made, preparatory to letting a contract.

The portion of the land on which the first nine holes of the Mosholu Golf Course are located, was cleaned of underbrush and dead trees; old stone walls were removed, holes and depressions filled in with 10,000 cubic yards of earth; boulders and field stones which



CRICKET GROUNDS, VAN CORTLANDT PARK



BASEBALL FIELD, VAN CORTLANDT PARK



GOLF, VAN CORTLANDT PARK LINKS

were in line of play on fairway, were blasted, broken up and hauled away. Nine Tees, five sand traps and five bunkers were built; putting greens were plowed and seeded; and rough portions of fair greens, especially the approaches, were also leveled off, and grass seed was sown.

A large circular bowl, lined with sea-green tinted tiles, and with marble coping of classical lines, replacing the old granite coping, was constructed around the handsome marble fountain in the Colonial Garden.

In this Garden, 100,000 tulip bulbs were removed, and replaced by 455,000 summer flowering plants. These, in turn, were in the Fall replaced by a plantation of approximately 100,000 tulip bulbs of different varieties. A privet hedge was planted around the comfort station, near the Van Cortlandt House, as a screen to the entrances. Inside of this hedge, ornamental evergreens and deciduous shrubs were planted; and there were also 115 evergreen trees and shrubs planted around the golf house.

At the nursery in this park, 70,000 pansies and daisies were planted in frames, for use in the various parks, and 7,500 shrubs of the Department's own growing were transplanted to nursery rows; 60,000 evergreen cuttings were transferred from frames to open ground, and 70,000 cuttings of deciduous shrubs were tied in bundles, placed in sand, and made ready to put in the ground for Spring planting.

WASHINGTON BRIDGE PARK

This park has an area of 8.45 acres, and is located at the Bronx approach of Washington Bridge, which spans the Harlem River to West 181st Street, Manhattan.

The greater area is on the slope leading to the Harlem River, and is in a fine state of cultivation.

OLD FORT NUMBER FOUR PARK

Area.—This park has an area of 6.71 acres.

Means of Access.—Jerome Avenue line of the Union Railway, to Kingsbridge Road; thence walk west to Sedgwick Avenue, or transfer to westbound trolley.

Historical Associations.—This park is a rocky bluff by the roadside, located southwesterly from, and adjacent to, the Reservoir, at the intersection of Reservoir and Sedgwick Avenues. It is the site of one of the outer defenses which Washington built during the Revolution, to protect the American army, when it was encamped on the Heights of Harlem. A flag staff marks the site of the old fort. The rounded earthen mound of the redoubt is clearly marked. When first cleared of brambles, at the center were uncovered an old brick fireplace, and part of a stone flooring, and nearby were found buttons, buckles, coins and pieces of crockery. A bronze tablet has been erected on the rocky face of the bluff by the Daughters of the Revolution of the State of New York.

Improvements.—The Department, during the year, erected a flight of stone steps from the street to the top of the bluff.

TRIANGLES AND SQUARES

The following plots under the jurisdiction of the Department, located at various points throughout the Borough, were put in a high state of cultivation, and presented a vastly improved appearance, beautifying the plazas in which they were located, 11,170 bedding plants, 3,800 tulip bulbs, 283 shrubs, and 8 trees being used in such work:

	Area in Acres
A Third Avenue and 137th Street.....	0.04
B Hall Place and 165th Street.....	0.38
C Hunts Point Road and Faile Street.....	0.07

	Area in Acres
D	Hunts Point Road and Randall Avenue..... 0.12
E	Washington Avenue and 163rd Street..... 0.06
F	Washington Avenue and 161st Street..... 0.26
G	Brook Avenue and 161st Street..... 0.36
H	Morris Avenue and 142nd Street..... 0.06
I	Aqueduct Avenue and Boscobel Street..... 0.62
J	Waldo Avenue, Fieldstone Road and 242nd Street..... 4.31
K	Boston Road and Third Avenue..... 0.06
L	Webster Avenue, Claremont Parkway, Clay Avenue..... 0.28
M	Jerome Avenue and 170th Street..... 0.50
N	Willis Avenue and Southern Boulevard..... 0.60
O	Spuyten Duyvil Parkway and Broadway..... 0.20
P	Fordham Road and Southern Boulevard..... 0.54
Q	Quarry Road and 183rd Street..... 0.05
R	Morris Avenue and 144th Street..... 0.06
S	Pelham, Crotona Avenues, and Southern Boulevard..... 0.60
T	Mosholu Avenue and Broadway..... 0.06
U	Washington Avenue and 188th Street..... 0.15
V	Hunts Point Avenue, Whitlock Avenue and 163rd Street... 0.32
W	Third Avenue, Quarry Road and 181st Street..... 0.05
X	Waldo Avenue and 242nd Street..... 0.31
Y	Boston Avenue and 169th Street..... 0.16
Z	Franklin Avenue and 169th Street..... 0.15
AA	Austin Place and 149th Street..... 0.04
BB	Shakespeare Avenue and 168th Street..... 0.06
<hr/>	
Totals.....	10.47

PARKWAYS

Index	Name	Actual Length Linear Feet	Width in Feet	Square Feet	Acres
{DD EE	Bronx & Pelham.....	11,861	400	4,744,400	108.90
FF	Crotona.....	3,815	140	534,100	12.30
GG	Mosholu.....	6,035	600	3,621,000	83.12
HH	Spuyten Duyvil.....	11,500	Average Width 106.438	11,224,037	28.10
	(varies from 60 to 180 ft.).....				
<hr/>					
Totals.....		33,211		20,123,537	232.44

BRONX AND PELHAM PARKWAY

Improvements.—On this parkway, 21,000 square yards of pavement was repaired, between the Southern Boulevard and the White Plains Road, using 960 cubic yards of 1½-inch trap rock, 16,100 gallons of "Tarvia X," and 310 cubic yards of grits.

Between Williamsbridge Road and Eastchester Road, 15,060 square yards of pavement

was repaired, using 456.4 cubic yards of 1½-inch trap rock, 478 cubic yards of trap rock screenings. Only a portion of this,—3,600 square yards,—was covered with tar and grits, owing to lack of funds. The balance will be covered early in 1915.

In addition to the foregoing, 15,100 square yards of roadway between the Eastchester Road and the New York, New Haven and Hartford Railroad, was covered with tar and grits, using 5,200 gallons of "Tarvia B," and 230 cubic yards of grits.

CROTONA PARKWAY

The roadway of Crotona Parkway is in bad condition, but, owing to the fact that it parallels Southern Boulevard, and is separated by grass plots 40 feet wide, with trees, etc., it receives but little traffic. On account of the lack of time and materials, the Department believed that repairs on this parkway could be deferred until next year.

This roadway should be reduced in width, for the reason that only such traffic as accommodates the residents on the parkway uses it.

MOSHOLU PARKWAY

Improvements.—There were 30,555 square yards of pavement on this roadway repaired, using 1,073.9 cubic yards of broken stone, and 567.1 cubic yards of screenings. This will be covered with coal tar and grits early in 1915.

SPUYTEN DUYVIL PARKWAY

Improvements.—The entire parkway from the Spuyten Duyvil Station to Broadway—41,666 square yards—was repaired, using 2,247 cubic yards of trap rock, and 1,041.9 cubic yards of screenings. The surface was treated with two coats of tar, using 34,017 gallons of coal tar, and 739.8 cubic yards of grits.

CONSTRUCTION

The construction work of a character requiring funds derived from the sale of corporate stock was at a minimum in 1914. Construction work is, as a rule, done under contract, where large sums of money are involved. Much is done, however, with the regular labor forces of the Department. The latter usually consists of filling in and grading lawns, tennis courts, athletic fields, etc.; extension of existing walks, paths and roads; construction of small and inexpensive buildings. Tables printed herein show the various classes of work performed in the parks and on the parkways, which could not be classed as ordinary maintenance.

Table No. X shows construction and maintenance work performed under contract, the present status of the contract, and information as to the guaranty.

None of the new construction work was of sufficient importance to warrant a separate description. The most interesting work is probably the methods in use for maintaining the highways, lawns, and trees. These activities are described at length in other sections of the report.

HIGHWAYS

Maintenance.—Six types of road surfacing are in use on the various drives and roadways under the jurisdiction of this department. Chart A shows graphically and by figures, the quantities of each type of surfacing. The roads are all subjected to very heavy automobile traffic, and, as a result, they require constant care. The permanent pavements—so-called—consisting of various forms of asphaltic material, amount to 99,030 square yards, or about 16.7 per cent. of the entire road surface.

DUST PREVENTION

Dust prevention is a large item in the cost of park roadway maintenance. In past years, large sums were spent for sprinkling with water, the cost of which, during seasons of protracted drought, was about 5-cents per square yard, per year. Of course, water could be used only at certain seasons of the year, and its effect lasted, as a rule, less than an hour in hot, dry weather.

During the past season two different methods of dust prevention were used. On gravel roads, a light asphaltic oil was used, while the macadam roads received a treatment of coal tar and grits.

ROAD OIL TREATMENT—GRAVEL ROADS

Asphaltic road oil was used on gravel roads only. The oil used was specified to have a specific gravity of between 16° and 23° Baumé, and to contain not less than 50 per cent. of liquid asphalt. Each bidder was required to submit samples of the oil which he proposed to furnish, at least two days before the opening of the bids. During shipment, a sample from each car was tested by the Standard Testing Laboratory.

APPLICATION

The oil was applied cold, under a pressure of 40 pounds per square inch. The distributors used belong to the department. They consist of pumps driven by chains passing over sprockets on the rear wheel of the truck. The tanks are old water sprinklers, which originally cost \$325 each. The department owns four of the distributors, which represent an investment of \$2,300, including the cost of pumps.

The oil was distributed under contract, at a cost of \$.01 per gallon. Between one-fourth and one-third of a gallon was applied to each square yard of surface.

COST

The asphaltic oil used during the year cost \$.052 per gallon delivered and spread upon the road. The cost per square yard, including distribution, varied from \$.013 to \$.017.

COAL TAR AND GRITS TREATMENT—MACADAM ROADS

Approximately 180,000 square yards of macadam roads were given a treatment of coal tar and grits, during 1914. It has been found that this treatment will last about one year, and the program of the department is to resurface with this treatment, at least once every year, all of the macadam roads. On such roads as are subjected to very heavy general traffic, two applications of tar and grits should be made, as a matter of economy in preserving the roadway surface, and avoiding the necessity of extensive road repairs.

MATERIAL USED

Tar.—The refined coal tar used in surfacing the macadam roads was known as Tarvia "B," and conformed to the following specifications:

Definition: The coal tar is pitch distilled from bituminous coal, condensed in the manufacture of coal gas, and is not an admixture with water gas tar.

Viscosity: Not more than 200 seconds at 140° F. for 200 c. c. Tested by Standard Englar Viscosimeter.

Specific Gravity: 1.10 to 1.17 at 60° F.

Residue upon distillation: When distilled according to the method of the American Society for Testing Materials to 500° F., the residue shall not be less than 50%, and shall be pitch melting below 140° F.

CHART A

THE CITY OF NEW YORK
DEPARTMENT OF PARKS, BOROUGH OF THE BRONX.

Diagram

Showing Yardage, and Mileage of Paved Roads on December 31st 1914

	<u>Sq YARDS</u>	<u>MILES.</u>
MACADAM. 	456,512	38.80
SHEET ASPHALT. 	70,950	3.04
ASPHALT BLOCK. 	28,080	1.60
ASPHALT PENETRATION METHOD. 	27,200	1.38
BITUMINOUS CONCRETE. 	2,220	0.08
GRAVEL. 	8,000	0.45
TOTAL.	592,962	45.35

THE CITY OF NEW YORK
DEPARTMENT OF PARKS, BOROUGH OF THE BRONX.

1914.

Physical Statistics of Parks.
Acres in Parks, Squares Triangles, Parkways, Water Surface, etc.

NUMBER OF BASE BALL DIAMONDS.	NUMBER OF TENNIS COURTS.	INDEX.	NAME OF PARKS.	Total Areas of Parks, etc. in Acres.	Assessed Valuation of Land in Dollars.	Value of Land Improvement in Dollars.	Land Surface.											Water Surface.		Roads				INDEX.	
							Total Land Area.	Improved Areas.						Unimproved Areas.					Natural.	Artificial.	Length in Feet.	Average Width in Feet.	Square Yards.		Miles
								Total Improved Areas.	Improved Lawns.	Plantations. Flowers & plants. Trees & Shrubs.		Picnic Grounds	Athletic Fields & Grounds	Roads & Paths.	Buildings	Unimproved Lawns.	Other developed but unimproved Areas.	Undeveloped Areas.							
2	4	1	BRONX PARK.	1719.12	17,206,000.00	19,056,000.00	3886.62	140.02	106.60	8.50	6.42	1.40	16.20	0.09	18.00	35.00	20.00	28.00	4.50	9344.0	26.0	269950	1.77	1	
4	16	2	CROTONA PARK.	154.60	8,360,000.00	8,405,000.00	151.35	124.61	75.15	7.60	8.00	21.50	12.10	0.26	6.74	8.00	12.00	28.00	3.25	17,000.0	30.0	566660	3.22	2	
1	4	3	CLAREMONT PARK.	38.00	665,000.00	690,000.00	38.00	29.40	19.79	0.03	4.30	2.88	2.30	0.10	3.10	2.00	3.50			3,000.0	25.0	83350	0.57	3	
		4	DEVOE PARK.	5.87	375,000.00	375,000.00	5.87	5.87	3.44	0.02	1.50	0.21	0.70											4	
		5	DRAKE PARK, J.RODMAN	2.80	21,500.00	21,500.00	2.80	1.74	0.98	0.02	0.60		0.10	0.04	0.26		0.60								5
		6	ECHO PARK.	4.00	256,000.00	256,000.00	4.00	2.50	1.76	0.04	0.40		0.30		0.50		1.00								6
		7	FULTON PARK.	0.94	44,000.00	44,000.00	0.94	0.94	0.86	0.02	0.03		0.20												7
4	10	8	MACOMBS DAM PARK.	27.00	922,500.00	1,231,000.00	27.00	20.00	4.14	0.06	0.80	14.00	0.90	0.10		3.00	4.00			900.0	18.0	1800.0	0.17	8	
		9	MELROSE PARK.	0.83	61,500.00	61,500.00	0.83	0.83	0.49	0.02	0.02		0.30												9
10	1	10	PELHAM BAY PARK.	1756.00	10,000,000.00	10,610,000.00	1706.00	345.00	130.00	0.80	3.50	30.00	137.00	41.00	2.70	138.00	623.00	600.00	50.00		59000.0	28.0	183,555.0	11.17	10
		11	POE PARK.	2.33	200,000.00	200,000.00	2.33	2.33	1.76	0.02	0.23		0.30	0.02											11
		12	ROSE HILL PARK.	0.72	60,000.00	60,000.00	0.72	0.72	0.47	0.02	0.07		0.16												12
	6	13	ST. JAMES PARK.	11.83	710,000.00	765,000.00	11.83	11.83	7.35	0.03	3.70		0.32	0.40	0.03						1,000.0	30.0	33330	0.19	13
	2	14	SIGEL PARK, FRANZ	17.47	668,000.00	673,000.00	17.47	9.60	3.87	0.03	4.30		1.30	0.10	2.37	2.50	3.00			1,000.0	16.0	20000	0.19	14	
1	2	15	ST. MARYS PARK.	34.20	484,500.00	494,500.00	34.20	26.40	9.08	0.10	8.40		5.00	2.70	0.12	2.00	3.50	2.30		2,000.0	30.0	66660	0.38	15	
		16	STAUGUSTINE PARK	0.25	26,500.00	26,500.00	0.25	0.25	0.14	0.01			0.10												16
		17	UNIVERSITY PARK.	2.75	115,000.00	115,000.00	2.75	2.25	0.55	0.03	1.17		0.18			0.50									17
12	8	18	VAN CORTLANDT PARK.	1132.35	13,200,000.00	15,250,000.00	1115.85	570.85	302.00	5.20	24.50	\$0.00	145.00	43.25	0.90	150.00	45.00	350.00	16.50		46000.0	25.0	127777.0	8.71	18
		19	WASHINGTON BRIDGE PARK.	8.45	44,000.00	44,000.00	8.45	7.95	6.60	0.04	0.80		0.50	0.01		0.50									19
			TOTALS.	3919.31	33,419,500.00	36,378,000.00	3837.26	1305.09	675.43	22.59	68.74	80.00	327.31	122.91	4.47	318.47	722.50	996.60	94.50	7.75	139244.0		427125.0	2637	
			TRIANGLES AND SQUARES, ETC.																						
		A	THIRD AVENUE AND 137TH STREET	0.04			0.04																		
		B	HALL PLACE AND 165TH STREET	0.38	25,000.00	25,000.00	0.38	0.17	0.17						0.21	0.04									
		C	HUNTS POINT ROAD AND FAILE ST	0.07	1,300.00	1,300.00	0.07									0.07									
		D	HUNTS POINT ROAD & RANDALL AVE.	0.12	3,800.00	3,800.00	0.12																		
		E	WASHINGTON AVE. AND 163RD ST.	0.06	10,000.00	10,000.00	0.06	0.06		0.06															
		F	WASHINGTON AVE AND 161ST ST.	0.26	50,000.00	50,000.00	0.26	0.26	0.10	0.06				0.10											
		G	BROOK AVENUE AND 161ST STREET.	0.36	65,000.00	75,000.00	0.36	0.36		0.36															
		H	MORRIS AVENUE AND 142ND STREET.	0.06	8,000.00	8,000.00	0.06	0.06		0.06															
		I	AQUEDUCT AVENUE AND BOSCOBEL ST.	0.62	40,000.00	40,000.00	0.62	0.62	0.40	0.04	0.18														
		J	WALDO AVE. FIELDSTON ROAD AND 242ND ST.	4.31	42,800.00	42,800.00	4.31	1.10		0.70			0.31			1.80	1.50								
		K	BOSTON ROAD AND THIRD AVENUE.	0.06	12,000.00	12,000.00	0.06	0.06	0.06																
		L	WEBSTER AVE. CLAREMONT PARKWAY & CLAYM	0.28	15,000.00	15,000.00	0.28	0.28	0.28																
		M	JEROME AVENUE AND 170TH STREET.	0.50	55,000.00	55,000.00	0.50	0.50	0.47				0.03												
		N	WILLIS AVENUE & SOUTHERN BOULEVARD	0.60	140,000.00	150,000.00	0.60									0.60									
		O	SPUYTEN DUYVIL PARKWAY & BROADWAY.	0.20	6,000.00	6,000.00	0.20											0.20							
		P	FORDHAM ROAD & SOUTHERN BOULEVARD	0.54	5,000.00	6,500.00	0.54											0.54							
		Q	QUARRY ROAD AND 183RD STREET.	0.05	3,000.00	3,000.00	0.05	0.05		0.05															
		R	MORRIS AVENUE AND 144 STREET.	0.06	12,000.00	12,000.00	0.06	0.06		0.06															
		S	PELHAM, CROTONA AVE & SOUTHERN BOULEVARD	0.60	100,000.00	100,000.00	0.60	0.45	0.30				0.15												
		T	MOSHOLU AVENUE AND BROADWAY	0.06			0.06											0.06							
		U	WASHINGTON AVE. AND 188TH STREET.	0.15	15,000.00	15,000.00	0.15	0.15	0.15																
		V	HUNTS POINT AVE. WHITLOCK AVE AND 163RD ST.	0.32	3,000.00	3,000.00	0.32								0.32										
		W	THIRD AVENUE, QUARRY ROAD AND 181ST ST.	0.05	4,000.00	4,000.00	0.05						1.62												
		X	WALDO AVENUE AND 242ND STREET.	0.31	7,800.00	7,800.00	0.31											0.31							
		Y	BOSTON AVENUE AND 169TH STREET.	0.16	10,800.00	10,800.00	0.16	0.16	0.10				0.06												
		Z	FRANKLIN AVENUE AND 169TH STREET.	0.15	9,000.00	9,000.00	0.15	0.15	0.07	0.03			0.05												
		AA	AUSTIN PLACE AND 149TH STREET.	0.04	2,000.00	2,000.00	0.04											0.04							
		BB	SHAKESPEARE AVENUE AND 168TH STREET.	0.06	5,000.00	5,000.00	0.06									0.06									
		CC	JEROME RESERVOIR, OLD FORT #4.	6.71	60,000.00	60,000.00	6.71									4.00	2.71								
			TOTALS.	17.18	710,500.00	732,000.00	17.18	4.49	2.10	0.13	1.47	1.62	0.60	0.10	0.59	6.51	3.48				48885.0		742487.0	926	
			PARKWAYS.																						
		DD	BRONX AND PELHAM PARKWAY.	108.92	1,835,700.00	1,835,700.00	108.92	4692	11.64	0.18	3.50		31.60		20.00	12.00	30.00								
		EE	BRONX AND PELHAM PARKWAY.	12.30	345,000.00	345,000.00	12.30	12.30	2.60	0.10	0.90		8.90												
		FF	CROTONA PARKWAY.	83.10	2,100,000.00	2,160,000.00	83.10	55.10	20.00	2.00	5.00		28.10				28.00								
		GG	MOSHOLU PARKWAY.	28.10	885,000																				

Ductility: Briquette of residual pitch, one square centimeter in cross section (Dow Mold) shall have a ductility of not less than 50 cm. at 77° F.

Solubility in Chloroform: Upon extraction, the tar oil shall yield not more than 12% of free carbon insoluble in chloroform.

Grits.—The grits were obtained from the Cow Bay district on Long Island, and varied in size from $\frac{1}{8}$ " to $\frac{3}{8}$ ". The particles were rounded, and, for this reason, were well suited to road surfacing, because of the reduced wear which they would produce upon tires.

Application.—The tar was heated and applied under a pressure of 40 pounds per square inch. The grits were spread from the roadside by shovels, and rolled with an eight-ton tandem roller.

Cost.—Tarvia "B," delivered and spread on the road, cost \$0.75 per gallon. The Department furnished the distributor and the labor for spreading the grits. Grits were purchased for prices varying from \$.813 to \$1.15 per cubic yard, delivered where required at the road side. The price included a lighterage of about 60 miles, and a motor truck haul of from two to four miles.

About 1-68 of a cubic yard of grits was used per square yard. This is equivalent to a cost of \$.0147 per square yard, on a basis of \$1.00 per cubic yard, average cost of grits during the year.

Distribution of grits cost \$.002 per square yard.

The total cost of repair work was \$.0417 per square yard.

Repairing.—Heavy tar resurfacing—old water-bound macadam roads.

A considerable portion of the old water-bound roads of the parks required entire resurfacing in 1914. It was found necessary in most instances to scarify and remove much of the old surface material.

Material Used.—The resurfacing material, which was about 6 inches thick in places, was $1\frac{1}{2}$ " trap rock.

The graded trap rock surface was bound with heavy coal tar, known as Tarvia "X." The surface was finished with $\frac{1}{8}$ " to $\frac{3}{8}$ " grits.

Application.—The trap rock was spread and graded and rolled with a 12-ton roller.

The coal tar was applied under pressure at a temperature of 250° F.

The grits spread on to the surface from the roadside were rolled with an 8-ton tandem roller.

Cost.—The cost of this type of work varied with the conditions. The highest cost was \$.47 per square yard, which included the removal of gravel almost 12 inches thick in places, and resurfacing with trap rock, which, in some instances, was spread 6 inches thick.

The coal tar used cost \$.105 per gallon, delivered and distributed on the road, the average quantity used per square yard being 0.81 gallons.

ADDITIONS TO ROLLING STOCK

At the beginning of the year the Department had in its possession a useless automobile of an antiquated type. The chassis of the car was overhauled and put in good running order by an automobile engineman employed in the department. A body was built on the chassis, thus converting it into a truck. This truck is used principally by the street tree squad in carrying on their work of trimming and spraying street trees, and transporting the men from section to section; it is also used from time to time in delivering supplies from the storeroom to the different parks. It has been made to take the place of four ordinary horses and wagons, as well as enabling the street tree squad to complete their work more rapidly.

Altogether it has effected a large saving and the Department expects to convert another useless motor car into a similar truck.

The Department had also in its possession 14 water sprinkling monitors which it used on macadam roads to allay the dust. Because of the fact that the department is treating the surfaces of these roads with Tarvia, which not only allays the dust but preserves the

pavement, it was found that the use of six of these wagons could be dispensed with. Accordingly, they were dismantled and such parts as could be used for the purpose were used in the construction of seven carts and two stone trucks.

A large platform truck used to distribute benches from one point to another was constructed from materials which the Department had on hand.

In addition, the department during the year constructed from materials on hand two log trucks, four tool boxes on wheels used by gangs at work in places remote from the general tool house, and one tool house on wheels used by the road repair squad.

STREET TREES

This Department is charged with the duty of taking care of the street trees in the borough, and upon learning that it had no up-to-date census of such trees, and that such a census had not been made for several years, the Department during the year made such a census with reference to the location of the trees by streets, the kinds and conditions of all trees and the total number.

This census shows that there are more than 27,000 trees of various kinds in the streets of the borough, a large percentage of which are Silver Maples and Carolina Poplars, both of which varieties are considered undesirable for street planting, for the reason that they are short-lived, break easily in storms, and require constant attention.

Methods of Planting:

With a few exceptions, no attempt has been made to systematize the planting of street trees. The few streets which have been planted uniformly show good results. But, as a general rule, trees are planted without supervision or plan.

Condition of Individual Trees:

The average condition of trees is good. Some had been improperly pruned in the past, and showed an abnormal growth. Tree guards, a necessity in a city having conditions found in The Bronx, are often lacking.

Methods of Trimming:

The borough is divided into fourteen sections. A squad is sent from section to section, completely finishing one section before going to another.

Poplars and Silver Maples are cut back each year. Other varieties, of which there are about fifty, are cleaned out, trimmed, all dead and dangerous branches removed, cavities filled, tree guards straightened or replaced, and the tree put in as good shape as possible.

Complaints are received from citizens, police, civic societies and other sources. They are investigated, and corrected as soon as possible.

Results of Trimming:

The trees are left in a healthy condition. All dead and dying branches are removed, and the pruning is done so as to give a maximum of light and air, without materially reducing the shade. Dangerous trees are removed, and those remaining are improved.

Spraying and Treating:

Kinds of Insects.

Almost every prominent kind of insect or blight has appeared on the trees of the borough. They may be divided into four classes, each with subdivisions as follows:

Chewing Insects:

- Elm Beetle
- White Marked Tussock Moth
- Snow White Linden Moth
- Spiney Elm Caterpillar
- Forest Tent Caterpillar
- Fall Web Worm

Scale:

Oyster Shell
 Tulip
 Cottony Maple
 Rose
 Elm Scurvy
 Maple Leaf

Aphids:

Woolly Elm
 Maple Leaf

Borers:

Painted Maples
 Hickory
 Bronze Birch
 Elm
 Banded Ash
 Oak Bark Beetle

Character and Habits:

The *chewing insects* feed on the leaves of various trees, some confining themselves to particular varieties, while others attack many different kinds of trees. Some prefer certain varieties, but will attack others if necessary to obtain their food.

The *scales and aphids* have similar habits to the chewing insects, some attacking only one variety, while others attack many varieties, and of the latter, some show marked preference for certain varieties of trees.

The *borers* usually attack one variety, by boring through the bark into the wood, introducing rot and disease.

Fungus attacks only after the tree has started to die, or has been wounded.

Remedies:

For borers, several patented preparations have been used, with varying results. The surest method is to inject carbon bisulphide (CS) into the borer holes, and plug with sealing wax. This method is too costly for a tree badly infested.

For fungus attacks, Bordeaux mixture, with lime and sulphur, is used. This solution, used as a spray, will destroy any fungus.

For chewing insects, arsenate of lead paste is used entirely.

For scales, miscible oils and lime and sulphur have been successfully used.

For aphids, the remedy has been a kerosene emulsion with whale oil soap.

Time of Spraying and Treating:

Spraying trees for chewing insects is done from the latter part of May until the first of September.

Aphids are sprayed during the entire summer.

Borers are attacked throughout the entire year.

Spraying for scale is done while the trees are dormant between November 1 and April 1.

Equipment Used:

The Department has two power sprayers, three air pressure hand pumps, and two barrel pumps. The power sprayers are of twelve and ten horse power, respectively, and carry 400 gallon tanks. Using two leads of hose streams may be thrown 70 to 80 feet in the air.

The air pressure machines are placed on 600 gallon tanks, using two leads of hose. They are used on small trees and throw streams about 25 feet high.

The hand barrels are used for work on street trees in answer to complaints.

Several methods have been considered by which it is hoped to encourage tree planting in the streets. An effort has been made to interest property owners to unite in order to secure a uniform planting. The Department could furnish and plant a tree, and provide a tree guard for the sum of \$11.00.

This method is unsatisfactory in most instances, and unless all property owners agree a uniform planting is not secured. There should be some method by which the Department could assess for street tree planting in a similar manner to other street improvements. Such a method would permit of the development of a work program of tree planting for the entire borough.

CARE OF TREES AND SHRUBS, FOREST TREES

Conditions of Hickory Trees.—The forest lands of the Department comprise more than a thousand acres. There are over three thousand dead trees of various kinds most of which are in a dangerous condition. The majority of the dead trees are hickory, which rots very quickly after dying, and becomes a menace. They are not only likely to damage other trees, or injure persons by falling, but become a source of infection. The borers with which it is infested will attack the healthy trees nearby, and spread the blight which is already so prevalent. All of the hickory trees in the several parks have been killed by this borer.

Orders of the State Department of Agriculture.—The Department of Agriculture of the State has repeatedly notified this Department to remove these dead and diseased hickory trees. They have marked all trees to be removed, not only in the park, but in surrounding territory.

Removals During the Year.—During 1914, about twelve thousand trees were removed by contract, leaving three thousand trees which should be immediately removed.

Conditions of Other Trees.—Most of the chestnut trees destroyed by the blight which started in this immediate vicinity, have been removed during the last ten years. Unintelligent methods were used in removing them, however, and the stumps, which were left three or four feet high, have sent up from two to five shoots. In addition to being unsightly, the shoots have been attacked by the blight, and tend to prolong it indefinitely.

The other trees of the forest—the beeches, oaks, maples, tulips, elms and hemlocks—are infested with many kinds of fungus diseases, borers and insects. These may be checked by spraying and other methods.

Conditions in the Forests.—Undergrowth and dead brush have accumulated for years on the floor of the forest. It forms an excellent place for breeding of forest pests, and is a fire menace of the worst sort. The effect of a great fire in the Van Cortlandt forest can easily be pictured, and its loss to the City would be incalculable.

The removal of undergrowth would materially aid in the work of reforestation. Nuts and seeds would reach the ground, germinate and grow into young trees, instead of lodging in the undergrowth, as often happens now.

Use for Dead Timber.—Much of the timber removed by Department labor is of sufficiently good quality for use in making park benches, fence posts, bridge planking, etc. The remaining timber makes good stove wood, for which a ready use is found.

Forest Trees.—It is recommended that immediate steps be taken to remedy conditions in the extensive forest lands under the jurisdiction of the Department. More spraying should be done. In order to do this two more high power spraying machines should be purchased at once. The gypsy moth has appeared in this vicinity, and it is only a question of time until it will reach Pelham Bay Park. With the present equipment it will be impossible to protect this forest from almost sure destruction. This pest has cost the State of Massachusetts large sums, and that State is spending considerable money each year in conjunction with the United States Government to fight this pest.

Results Obtained.—All insect attacks have been held in check. The elm beetle and tussock moth have been practically exterminated.

MAP

TABLE VII—GENERAL ADMINISTRATION

	Office of the Com- missioner	Office of the Super- intendent	Audit and Accounts	Office of the En- gineer	Purchase and Storage of Supplies	Undis- tributed	Cost per Acre of Parks	Total for Year	Increase Over 1913	Decrease Under 1913
Operation										
Personal Service.....	\$5,748.18	\$5,297.50	\$8,948.95	\$9,450.00	\$2,047.50	\$600.00	\$8.75	\$32,092.13	....	\$5,386.79
Office Supplies.....	28.60	1.95	24.85	14.61	....	527.63	.16	597.64	....	5.25
General Plant Supplies.....	....	1.05	....	....	....	98.35	.03	99.40	87.95	....
Transportation										
Carfare.....	....	....	2.10	4.60	....	31.10	.001	37.80	....	30.70
Expressage and Deliveries.....	.25	....	....	....	....	....	.0001	.25	.25	....
Communication										
Telephone Service.....	162.69	102.10	32.36	34.71	5.74	44.00	.11	381.60	31.82	....
General Plant Service.....	248.33	145.44	....	5.25	....	....	.11	399.02	330.38	....
Contingencies, Traveling Expense	....	26.37	....	....	....	....	.0007	26.37	26.37	....
Total.....	\$6,188.05	\$5,574.41	\$9,008.26	\$9,509.17	\$2,053.24	\$1,301.08	....	\$33,634.21	\$476.77	\$5,422.74
Cost per Acre of Parks.....	1.68	1.52	2.46	2.59	.56	.35	9.16	9.16	....	4,945.97 net
Maintenance										
Office Equipment										
Replacements.....	129.00	4.70	23.10	....	10.25	....	.05	167.05	....	399.68
Departmental Repairs, Labor....	91.00	19.37	22.50	30.00	102.75	....	.08	265.62	208.12	....
Departmental Repairs, Materials.	15.36	5.04	1.28	17.22	45.63	....	.02	84.53	80.22	....
Repairs, Contract or Open Order	....	....	....	....	....	....	....	....	....	....
Service.....	6.75	....	....	....	....	14.35	.001	21.10	....	28.25
General Plant Equipment										
Replacements.....	....	....	....	....	....	....	....	....	....	4.06
Departmental Repairs, Labor....	....	....	....	....	....	....	....	....	....	33.37
Departmental Repairs, Materials.	....	....	....	....	....	....	....	....	....	....
Repairs, Contract or Open Order	....	....	....	....	....	....	....	....	....	....
Service.....	....	....	....	....	....	....	....	....	....	....
Total.....	\$242.11	\$29.11	\$46.88	\$47.22	\$158.63	\$14.35	....	\$538.30	\$288.34	\$465.36
Cost per Acre of Parks.....	.07	.01	.01	.01	.04	.01	.15	.15	....	177.02 net
Grand Total, Operation and Main- tenance.....	\$6,430.16	\$5,603.52	\$9,055.14	\$9,556.39	\$2,211.87	\$1,315.43	....	\$34,172.51	....	\$5,122.99 net
Cost per Acre of Parks.....	1.75	1.53	2.47	2.60	.60	.36	9.31	9.31	....	....

Total Acreage of Parks, 3,668.31

TABLE VI

CARE OF TREES IN CITY STREETS

	Total for Year	Cost per 1,000 Trees on Basis of 27,000 Trees in Streets	Increase Over 1913	Decrease Under 1913
Spraying, pruning and general care				
Labor.....	\$13,765.01	\$509.8152	....	\$2,571.65
Vacation and lost time.....	371.50	13.7592	....	339.25
Botanical and Agricultural Sup- plies.....	408.17	15.1174	....	198.33
Fuel Supplies.....	62.61	2.3189	.48	....
General plant supplies.....	19.50	.7222	7.14	....
General plant materials.....	2.99	.1107	2.99	....
Hire of horses and vehicles with drivers.....	2,275.25	84.2685	....	1,212.25
Carfare.....	24.25	.8982	20.25	....
Total.....	\$16,929.28	\$627.0103	\$30.86	\$4,321.48 \$4,290.62 net.
Tree Guards				
Replacements.....	....	....	....	....
Departmental repairs, labor...	239.00	8.8519	239.00	....
Departmental repairs, materials	8.87	.3285	8.87	....
Total.....	\$247.87	\$9.1804	\$247.87	....
Grand Total.....	\$17,177.15	\$636.1907	\$278.73	\$4,321.48 \$4,042.75 net.

CARE OF TREES, SHRUBS, FLOWERS AND LAWNS. Parks and Ci y Streets

Supervision, head gardener and driver.....	\$2,180.00	....	\$2,180.00	....
Total.....	\$2,180.00	....	\$2,180.00	....

The linden moth and spiny elm caterpillars have been kept down with little difficulty. The fall web worm and the forest tent caterpillar have given serious trouble, but have been checked.

Both forest and street trees still suffer from scale. While large numbers have been wiped out, the great extent of forest and the lack of funds have prevented effective work. The forests have suffered more than the street trees from this cause.

During the year the aphids have been very plentiful, but have done no appreciable damage. On account of its minute size, this insect is almost impossible to wipe out, and will require constant spraying.

Steps should be taken at once to clean out the forests, remove dead and diseased trees, and take up scientific reforestation work.

Organization and Administration.—A Chart "C" prepared by the Bureau of Standards of the Board of Estimate and Apportionment, and printed herein, shows the general organization of the Department during the year 1914.

The working force has been reduced considerably for 1915, as is shown on the chart "D." This reduction will not seriously impair the work to be undertaken, however, and will, it is thought, better balance the force, while at the same time bringing about a substantial reduction in the pay-roll.

Further reduction in the personal service allowance will seriously impair the maintenance work in the Department, and a programme of gradually increasing allowances should be adopted.

The increasing population and the extension of the developed area of the parks necessitate an increase in the work and cost of maintenance, and if the value of the parks as an asset is not to deteriorate, sufficient funds must be allowed.

CHART D

	Changes for 1915		Decrease	Increase
	1914	1915		
Department of Parks.....	\$1,186.25	\$1,200.00	.....	+\$13.75
General Office.....	4 Employees \$5,100.00	5 Employees \$6,570.00	.....	+1,470.00
Bureau of Audit and Accounts	6 Employees \$8,850.00	5 Employees \$6,720.00	-\$2,130.00	.....
Bureau of Superintendence..	\$7,886.25	\$7,900.00	.....	+13.75
Skilled and Unskilled Labor.	100 Employees \$106,009.00	90 Employees \$91,313.50	-14,695.00	
Skilled and Unskilled Labor.	84,156 Days \$216,040.00	81,208 Days \$210,142.00	5,898.00	.....
			\$22,723.50	\$1,497.50
1914 BUDGET ALLOWANCE.....		\$358,971.50		
1915 BUDGET ALLOWANCE.....		337,745.50		
NET DECREASE.....		\$21,226.00		

RECOMMENDATIONS FOR PROPOSED IMPROVEMENTS

The following recommendations were made in the application for corporate stock funds this year, but no funds for any of the proposed improvements were allowed, except \$24,000 for repaving City Island Road.

It is to be hoped that conditions in 1915 will be such that many, if not all, of the improvements recommended may be undertaken, as all are of the utmost importance to the development of our park system.

The following schedule, aggregating \$720,500, shows the location and the estimated cost of the proposed improvements:

BRONX PARK

1: <i>Completion of Road from a Point near Lorillard Mansion to the Botanical Garden, to connect with road recently constructed through the Botanical Garden..</i>	\$10,000
2: <i>Bridge over Gulf at Head of Lake, near the Lorillard Mansion—Continuation of Road Named Above.....</i>	26,000
3: <i>Road Bridge over Bronx River, at the Snuff Mill.....</i>	28,000
4: <i>Improvement along Pelham Parkway Side of the Park, Including Planting and Reconstructing the Lily Pond.....</i>	12,000
5: <i>Improvement of Recently Acquired Addition to the Easterly Side of Bronx Park..</i>	30,000

BRONX AND PELHAM PARKWAY

1: <i>Asphalting Existing Walks.....</i>	\$10,000
2: <i>Construction of Roadway Along the Northerly Boundary of the Bronx and Pelham Parkway, from the White Plains Road to the Crossing of the said Parkway Over the N. Y., N. H. & H. R. R.....</i>	106,000

CROTONA PARK

<i>Skate House, Shelter House and Comfort Building at Indian Pond.....</i>	20,000
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CROTONA PARKWAY

<i>Completion of Parkway, Including Entrance to Crotona Park, and exclusive of Additional lands.....</i>	38,000
--	--------

MOSHOLU PARKWAY

<i>Walks, Paths and Improvements of Plantations.....</i>	8,000
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GENERAL IMPROVEMENT OF SMALL PARKS

<i>Railings Around Small Parks, and Along Walks and Drives in Other Parks....</i>	\$10,000
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MISCELLANEOUS

1: <i>Trees, Plants, Labor of Planting, etc. for Planting in Parks, and Restocking of Nurseries.....</i>	\$20,000
2: <i>Fencing Boundaries of Several Parks.....</i>	20,000
3: <i>Resurfacing of Park Roadways and Parkways.....</i>	80,000
4: <i>Forestry.....</i>	20,000
5: <i>Surveys, Maps and Plans for Preliminary Work on General Park Improvement..</i>	5,000

PELHAM BAY PARK

1: <i>Bridge from Main Land to Hunter Island</i>	\$60,000
2: <i>Road from Hunter Island Entrance to the Northerly Boundary of the Park</i>	22,000
3: <i>Addition to Comfort Station and Construction of a Shelter Building at the Athletic Grounds</i>	16,000
4: <i>Irrigation System for Golf Links</i>	3,500
5: <i>Improving Shore Front, and Increasing Bathing Beach Area</i>	5,000
6: <i>Completion of Road Along Eastchester Bay, from a Point Near Hunter House to the Westerly Approach to the New Bridge Over the Eastchester Bay</i>	11,000
7: <i>Golf House at Golf Links</i>	20,000
8: <i>Repaving City Island Road, from the Eastern Boulevard to the City Island Bridge</i>	24,000

VAN CORTLANDT PARK

1: <i>Improving and Planting of Lands West of Colonial Garden</i>	\$6,000
2: <i>Propagating House and Shed at Nursery</i>	4,000
3: <i>Constructing Road Along Old Aqueduct, from Gun Hill Road to Mosholu Avenue</i>	24,000
4: <i>Completion of Road Along Golf Links, from Mosholu Avenue to the Yonkers Line</i>	12,000
5: <i>Road from Caryl Station to Broadway</i>	12,000
6: <i>Building for Athletes, Polo Players, etc</i>	50,000
7: <i>Addition to Golf House, and Installing Electric Lighting in Old Building</i>	8,000

CHART D

BUDGET APPROPRIATIONS, AND PARK AREAS IN THE SEVERAL BOROUGHS 1914.

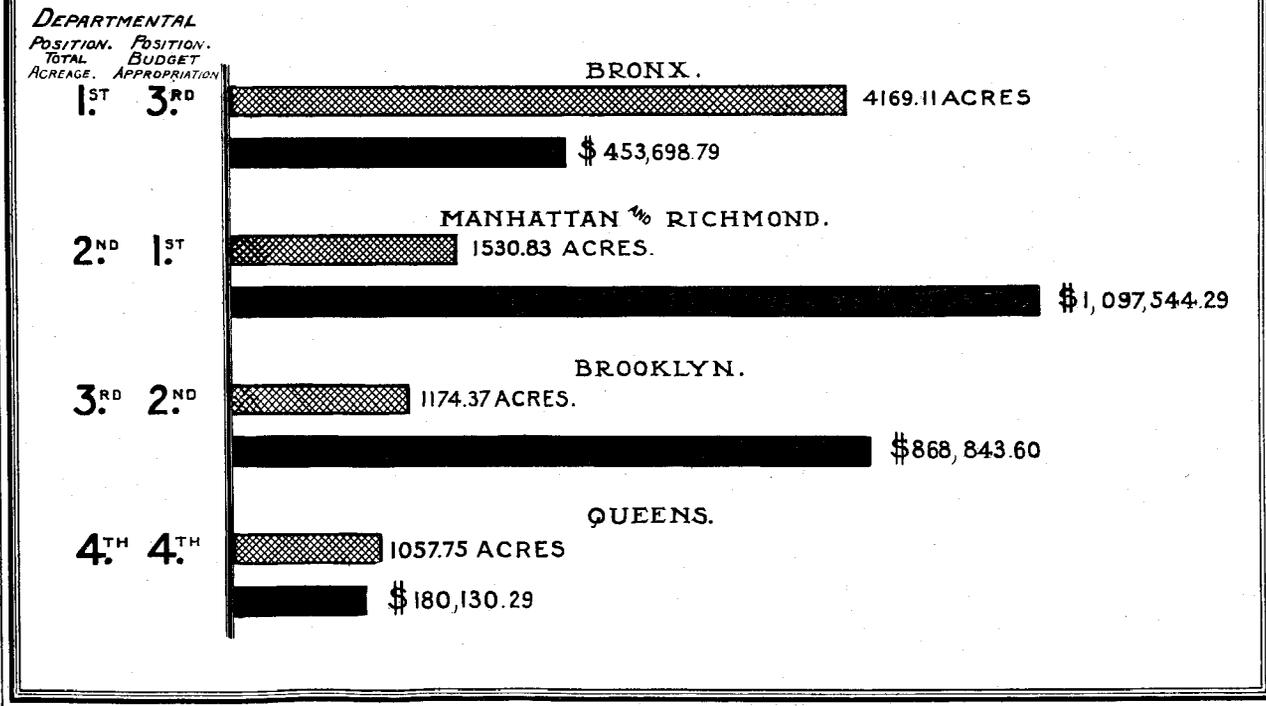


TABLE XXI

INDEX	NAMES.	LOCATION.
1	BRONX PARK.	EAST ONE HUNDRED EIGHTY SECOND ST SOUTHERN BOULEVARD, ST JOHN'S COLLEGE PROPERTY NEW YORK CENTRAL & HUDSON RIVER RAIL ROAD & WHITE PLAINS ROAD.
2	CROTONA PARK.	FULTON AVENUE, THIRD AVENUE. TREMONT AVENUE & ARTHUR AVENUE
3	CLAREMONT PARK.	TELLER AVENUE, BELMONT STREET CLAY AVENUE, & ONE HUNDRED AND SEVENTIETH STREET.
4	DEVOE PARK.	FORDHAM ROAD, SEDGWICK AVENUE & ONE HUNDRED EIGHTY EIGHTH STREET.
5	DRAKE PARK J RODMAN.	HUNT'S POINT ROAD, LONGFELLOW AVENUE AND EASTERN BOULEVARD
6	ECHO PARK.	JUNCTION OF BURNSIDE AVENUE AND TREMONT AVENUE
7	FULTON PARK.	FULTON AVENUE, ONE HUNDRED SIXTY NINTH AND SEVENTIETH STREETS
8	MACOMBS DAM PARK	JEROME AVENUE, ONE HUNDRED SIXTY SECOND STREET, CROMWELL AVENUE AND HARLEM RIVER
9	MELROSE PARK	ONE HUNDRED SIXTY FIRST AND, ONE HUNDRED SIXTY SECOND STREETS COURTLANDT & VANDERBILT AVENUES
10	PELHAM BAY PARK	NORTH EAST END OF NEW YORK CITY
11	POE PARK.	EAST ONE HUNDRED NINETY SECOND STREET AND KINGSBRIDGE ROAD
12	ROSE HILL PARK	PELHAM AVENUE PARK AVENUE AND WEBSTER AVENUE
13	ST. JAMES PARK	JEROME AVENUE, CRESTON AVENUE AND EAST ONE HUNDRED NINETY FIRST STREET
14	SIGEL PARK. FRANZ.	WALTON AVENUE ONE HUNDRED FIFTY EIGHTH STREET AND MOTT AVENUE
15	ST MARY'S PARK.	ST ANN'S AVENUE ONE HUNDRED FORTY NINTH STREET AND ROBBINS AVENUE
16	ST. AUGUSTINE PARK.	FRANKLIN AVENUE FULTON AVENUE ONE HUNDRED SIXTY SIXTH AND, ONE HUNDRED SIXTY SEVENTH STREETS
17	UNIVERSITY PARK	CEDAR AVENUE, ONE HUNDRED EIGHTY FIRST STREET & SEDGWICK AVENUE.
18	VAN CORTLANDT PARK	NORTHERN BOUNDARY LINE OF CITY BROADWAY VAN CORTLANDT AVENUE, JEROME AVENUE AND MOUNT VERNON AVENUE.
19	WASHINGTON BRIDGE PARK.	SEDGWICK AVENUE HARLEM RIVER AND WASHINGTON BRIDGE

Key to Map of Parks.

***10 Pelham Bay Park.**

- 1 Comfort Stations.
- 2 Bandstand.
- 3 Bathing Beaches and Bath Houses.
- 4 Camp Colony.
- 5 Athletic Field.
- 6 Golf Links.
- 7 Glover's Rock.
- 8 Baychester Station (N. Y., N. H. & H. R. R., Harlem River Branch; Terminal, Willis Avenue, Bronx. Second and Third Avenue shuttle train from 125th Street Station of Elevated Railroads.
- 9 City Island Station, same R. R. as above.
- 10 Site of Indian Burying Ground.
- 11 Site of Pell Treaty Oak.
- 12 Pell Family Burial Ground.
- 13 Split Rock.

***18 Van Cortlandt Park.**

- 1 Comfort Stations.
- 2 Bandstand.
- 3 Van Cortlandt Mansion, House
- 4 Colonial Gardens.
- 5 Skate and Golf House.
- 6 Golf Links.
- 7 Polo Field.
- 8 Parade Field.
- 9 Cricket Field.
- 10 Van Cortlandt Burial Ground.
- 11 Berrian Burying Ground.
- 12 Van Cortlandt Station.
- 13 Rhineland Sugar House Window
- 14 Site of original Van Cortlandt House (1700) and the Van Der Donck House (1650).
- 15 Site of Van Cortlandt Saw and Grist Mills.
- 16 Indian Field, scene of battle between British cavalry and party of Indian allies of patriots.

***8 Macomb's Dam Park.**

- 1 Bandstand.
- 2 Athletic Field.
- 3 Playgrounds.
- 4 Comfort Stations.
- 5 Site of the old Macomb Dam.

***14 Franz Sigel Park.**

- 1 Comfort Station.

***15 Saint Mary's Park.**

- 1 Morris Mansion containing Comfort Station.
- 2 Playgrounds.
- 3 Bandstand.
- 4 School Farms.

***3 Claremont Park.**

- 1 Comfort Station.
- 2 Zbrowski Mansion containing the offices of the Park Department of The Bronx.
- 3 Band Stand
- 4 Playgrounds.

***2 Crotona Park.**

- 1 Comfort Stations.
- 2 Indian Pond and Refreshment and Boat House.
- 3 Athletic Field.
- 4 Playgrounds.
- 5 Bandstands.
- 6 Ball Field.

***1 Bronx Park.**

- 1 Comfort Stations.
- 2 Bandstand.
- 3 Lorillard Mansion now used as a Museum, under the auspices of the Bronx Society of Arts and Sciences; contains historical relics, photographs, etc.; open 11 a. m. to 3 p. m. free.
- 4 Old Lorillard Snuff Mill, now used for Park Department Shops.
- 5 Greenhouses of the Park Department.

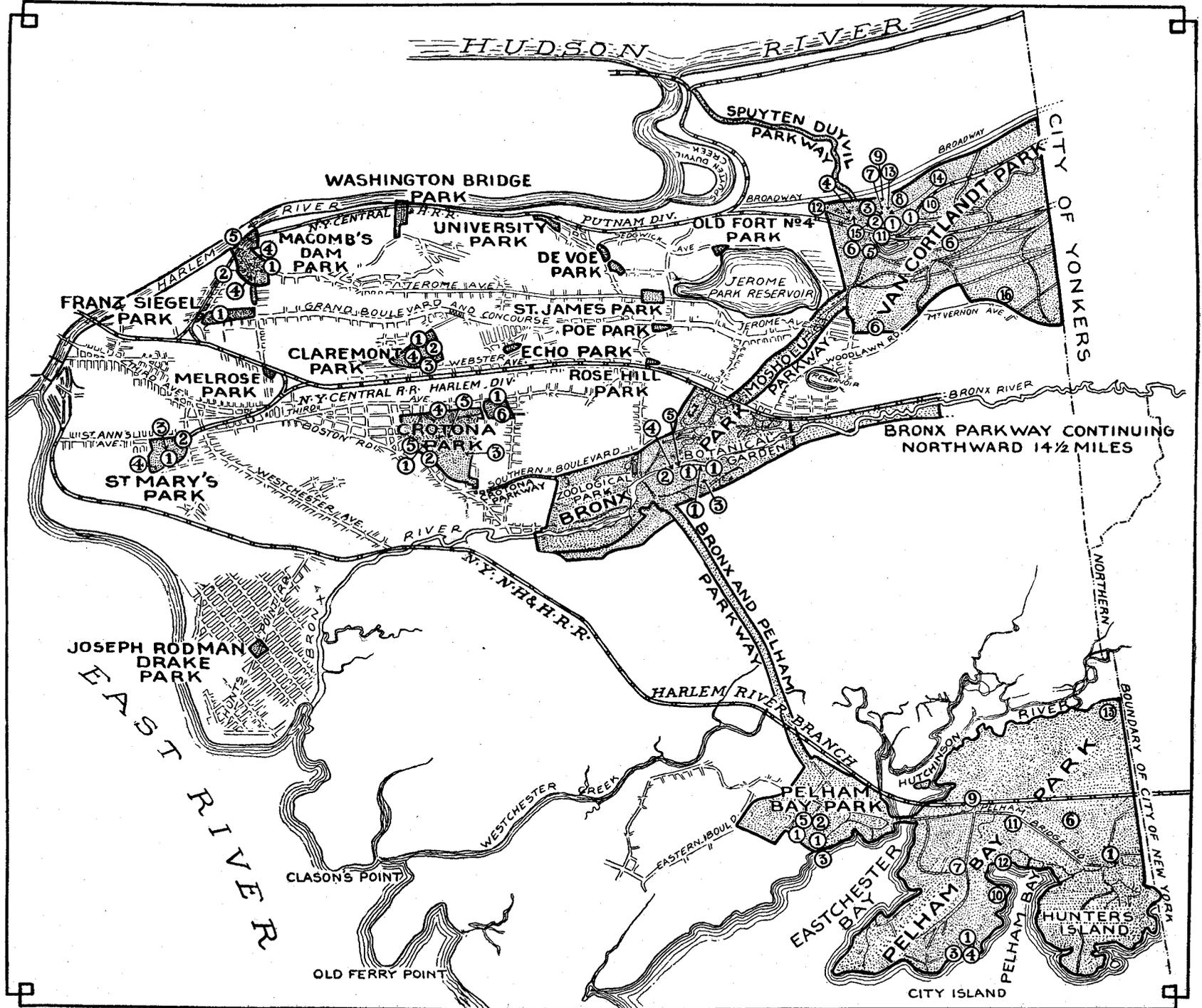


TABLE VIII.—ON BASIS OF

	General Adminis- tration	Park Supervision and General Expenses	Roads, Paths and Driveways	Trees, Shrubs, Flowers, and Lawns —Beaches, Lakes, Shore Line	Trees in City Streets
Personal Service.....	\$35,470.95	\$37,511.61	\$71,202.04	\$46,644.84	\$14,375.51
Supplies:					
Forage and Veterinary.....					
Fuel.....			891.23	126.61	62.61
Office.....	597.64				
Medical and Surgical.....					
Cleaning and Disinfecting.....	6.29				
Educational and Recreational.....					
Botanical and Agricultural.....				992.25	408.17
Motor Vehicle.....	911.09				
General Plant.....	99.40	88.74	129.19	63.38	19.50
Total.....	\$1,614.42	\$88.74	\$1,020.42	\$1,182.24	\$490.28
Purchase of Equipment:					
Office.....	\$167.05				
Live Stock.....					
Motorless Vehicles and Equipment.....					
Motor Vehicles and Equipment.....	2,201.65				
Wearing Apparel.....					
Educational and Recreational.....					
General Plant.....					
Total.....	\$2,368.70				
Materials:					
Highway.....			\$31,799.62		
Sewer.....					
Building.....					
General Plant.....	\$297.85			\$ 74	\$11.86
Total.....	\$297.85		\$31,799.62	\$ 74	\$11.86
Contract or Open Order Service:					
General Repairs.....	\$21.10		\$1,461.57	\$600.00	
Hire of Horses and Vehicles with Drivers.....		\$81.20	15,770.45	8,576.50	\$2,275.25
Shoeing and Boarding Horses, Inc. Veter- inary Services.....					24.25
Carfare.....	37.80				
Expressage and Deliveries.....	.25				
Telephone Service.....	381.60	93.31			
General Plant Service.....	399.02				
Motor Vehicle Repairs.....	191.65				
Traveling Expenses.....	26.37				
Total.....	\$1,057.79	\$174.51	\$17,232.02	\$9,176.50	\$2,299.50
Contingencies:					
Grand Total.....	\$40,809.71	\$37,774.86	\$121,254.10	\$57,004.32	\$17,177.15

TABLE IX—ON BASIS OF COST

	3,668.31 Acres	3,668.31 Acres	3,668.31 Acres	3,658.11 Acres	1,756.0 Acres	3,473.48 Acres	3,658.11 Acres
	DIRECT PARK						
	General Expenses	Supervision and General Expenses	Care of Roads, Paths and Drive- ways	Care of Trees, Shrubs, Flowers and Lawns	Care of Beaches Lakes and Shore Lines	Operation and Main- tenance of Playgrounds and Athletic Fields	Care of General Park Improve- ments and Properties
GENERAL ADMINISTRATION..	\$34,172.51						
Automobile Service.....	6,637.20						
PARKS AND PLAYGROUNDS:							
Bronx Park.....		\$1,796.50	\$3,864.45	\$3,556.41		\$536.32	\$566.63
Claremont Park.....		2,354.34	3,773.34	4,762.91		1,877.11	481.34
Crotona Park.....		4,824.34	18,598.53	6,157.16		5,890.50	1,689.85
De Voe Park.....		325.05	780.12	2,120.80		175.50	28.05
Echo Park.....		1,075.13	902.66	1,436.07		96.44	235.06
Macomb's Dam Park.....		2,412.00	5,585.18	2,874.51		6,472.18	465.65
Melrose Park.....			93.13	439.75			147.98
Pelham Bay Park.....		5,714.02	17,019.14	7,956.37	\$126.50	9,229.31	2,073.23
Poe Park.....		160.60	370.38	498.18			255.20
St. James Park.....		904.71	1,196.25	1,747.29		1,121.71	225.95
St. Mary's Park.....		2,265.75	3,691.30	3,632.88		1,753.45	1,432.32
Franz Sigel Park.....		1,287.75	2,279.19	1,479.60		122.56	125.25
University Park.....		160.60	245.19	583.13			24.00
Van Cortlandt Park.....		6,225.54	13,743.98	10,167.20		17,820.71	1,625.11
Washington Bridge Park.....		27.50	447.50	810.50			70.38
Small Parks, Squares and Triangles.....		200.24	1,730.36	1,835.85		81.80	931.28
PARKWAYS:							
Bronx and Pelham Parkway.....		1,621.67	14,430.91	2,041.31			113.50
Crotona Parkway.....			485.57	177.87			6.25
Mosholu Parkway.....		1,211.18	11,152.77	1,962.09		97.37	145.40
Roads in New York Botani- cal Garden.....			2,356.32				
Spuyten Duyvil Parkway..		1,357.75	18,507.83	411.44			67.75
UNDISTRIBUTED.....		3,850.19		2,226.50			7,436.08
MISCELLANEOUS EXPENSES:							
General Park Equipment..	7,452.92						
Greenhouses and Nursery..				37,116.61			
Stables.....	22,371.66						
Shops (overhead).....	8,701.23						
Stone Crusher.....			4,166.88				
Operation of Omnibus Line	11,160.61						
Total.....	\$90,496.13	\$37,774.86	\$125,420.98	\$93,994.43	\$126.50	\$45,274.96	\$18,146.26
Cost Per Acre of Parks in Which Function is Per- formed.....	24.67	10.30	34.20	25.68	.072	13.03	4.96
Total Area of Parks and Parkways Including Roads in Botanical Gardens which We Have to Maintain,							
Cost Per Acre of Parks.....	24.67	10.30	34.20	25.62	.034	12.34	4.95
Care of Trees in City Streets.....				\$17,177.15			
Cost Per 1,000 Trees on Basis of 27,000.....							
Grand Total.....	\$90,496.13	\$37,774.86	\$125,420.98	\$111,171.58	\$126.50	\$45,274.96	\$18,146.26

BY FUNCTIONS FOR EACH PARK

3,388.02 Acres		3,531.89 Acres								
EXPENSES										
Care of Bath Houses and Comfort Stations	Care of Buildings and Other Structures (Not Other- wise Classified)	Music and Celebra- tions and Repairs	1914 Total for the Year	Cost Per Acre of Park 1914	1913 Total for the Year	Cost Per Acre of Park 1913	In- crease Over 1913	De- crease Under 1913	Net Increase	
			\$34,172.51	\$9.32	\$39,295.50	\$10.71		\$5,122.99		
			6,637.20	1.81	4,953.50	1.35	\$1,683.70			
\$429.17	\$1,071.70	\$671.52	\$12,492.70	60.03	17,216.01	82.72		4,723.31		
1,077.35	3,359.86	649.09	18,335.34	482.51	17,771.24	467.66	564.10			
2,973.34	225.24	735.09	41,094.05	265.83	31,520.76	203.88	9,573.29			
			3,429.52	584.24	3,072.31	523.39	357.21			
	276.34		4,021.70	1,005.42	3,592.60	898.15	429.10			
1,506.19	1,078.09	706.83	21,100.63	781.50	16,126.22	597.27	4,974.41			
			680.86	820.31	187.75	226.20	493.11			
8,094.03	730.85	865.39	51,808.84	29.50	65,947.18	37.56		14,138.34		
	102.57		1,386.93	595.25	2,259.52	969.75		872.59		
1,200.92		607.61	7,004.44	592.09	7,101.05	600.26		96.61		
4,779.68		748.08	18,303.46	535.19	19,698.53	575.98		1,395.07		
1,212.70	40.00		6,547.05	374.79	8,132.98	465.54		1,585.93		
			1,012.92	368.33	1,019.10	370.58		6.18		
2,474.56	9,090.19	841.77	61,989.06	54.74	55,706.90	49.20	6,282.16			
60.90			1,416.78	167.67	1,724.93	204.11		308.15		
		273.73	5,053.26	230.85	3,407.53	155.66	1,645.73			
	261.77		18,469.16	169.56	22,029.07	202.25		3,559.91		
			669.69	54.44	1,162.83	94.54		493.14		
	.66		14,569.47	175.32	10,070.17	121.18	4,499.30			
			2,356.32	235.16	2,020.32	201.63	336.00			
			20,344.77	724.01	6,251.21	222.46	14,093.56			
			13,512.77	3.68	8,170.93	2.43	5,341.84			
			7,452.92	2.03	9,825.51	2.84		2,372.59		
			37,116.61	10.12	37,763.00	10.29		646.39		
			22,371.66	6.09	21,980.59	5.99	391.07			
			8,701.23	2.37	9,689.62	2.64		988.39		
			4,166.88	1.13			4,166.88			
			11,160.61	3.04			11,160.61			
\$23,808.84	\$16,237.27	\$6,099.11	\$457,379.34		\$427,696.86		\$65,992.07	\$36,309.59		
7.03	4.597									
3,668.31 Acres										
6.49	4.43	1.66		124.69		116.59	6.99			
			\$17,177.15		\$21,220.10			\$4,042.95		
			63.62		78.59					
\$23,808.84	\$16,237.27	\$6,099.11	\$474,556.49		\$448,916.96		\$65,992.07	\$40,352.54	\$25,639.53	

TABLE X—CONSTRUCTION AND
DEPARTMENT OF

Contract No.	Location	Contractor	Date of Execution of Contract	Date Work Started	Date of Final Estimate	Total Payments to Date
26,169	St. Mary's Park	Barber Asphalt Paving Co.	Jan. 20, 1910	April 1, 1910	May 12, 1911	\$3,937.15
30,821	Bronx and Pelham Parkway from Williamsbridge Road to White Plains Road	Dayton Hedges	July 28, 1911	Aug. 21, 1911	Dec. 11, 1911	20,415.70
34,886	Bronx and Pelham Parkway, from westerly end of bridge over tracks of N. Y., N. H. & H. R. R. to a point 345 feet westerly thereof	Brennan-Miller Paving Co., Inc.	Dec. 4, 1912	May 5, 1913	Aug. 14, 1913	2,084.06
34,568	Grand Boulevard and Concourse	William C. Bergen.	Oct. 17, 1912	Nov. 4, 1912	Aug. 28, 1913	34,387.33
38,043	Colonial Mansion, Van Cortlandt Park	Jas. Curran Mfg. Co.	Dec. 16, 1913	1913	Aug. 28, 1914	1,954.12
38,044	"	D. L. Delaney	Dec. 16, 1913	1913	Sept. 17, 1914	1,225.00
38,045	"	August H. Hillers	Dec. 17, 1913	Dec. 31, 1913	Nov. 18, 1914	8,973.86
39,036	"	Hoppin and Koen	Mar. 14, 1914	.....	Dec. 23, 1914	360.05
40,916	"	Louis Koenig	Dec. 29, 1914	Jan. 18, 1915	.....	.....
Total.....						\$73,337.27

MAINTENANCE CONTRACTS

PARKS, BRONX

Face Value of Contract	Guarantee			Character of Work	Code and Title of Appropriation	Authorization Board of Estimate and Apportionment
	Period	Amount	Date of Expiration			
\$4,188.46	2 years	\$251.31	June 10, 1915	Paving with Asphalt the Unpaved Existing Walks in St. Mary's Park	C.D.P. 325—Laying Asphalt Walks on Concrete foundations in place of present walks in St. Mary's Park	May 4, 1906 Amended June 3, 1910 April 6, 1911
21,490.21	5 years	1,074.51	Nov. 28, 1916	Reconstructing and Surfacing with asphaltic mixture, the roadway of Bronx and Pelham Parkway, from Williamsbridge Road to White Plains Road	C.D.P. 334—Parks, Dept. of Construction and Repaving of Drives, etc., under Contract. The Bronx	May 1, 1908 July 2, 1909
2,193.75	2 years	109.69	July 10, 1915	Paving with Asphaltic Pavement the roadway from the westerly Parkway, from the westerly end of bridge over tracks of the N. Y., N. H. & H. R. R. to a point 345 feet westerly thereof	C.D.P. 334—Parks, Dept. of Construction and Repaving of Drives, etc., under Contract—The Bronx	May 1, 1908 July 2, 1909
38,208.15	2 years	3,820.82	July 15, 1915	Furnishing and Planting trees on Grand Boulevard and Concourse	C.D.P. 342—Grand Boulevard and Concourse, Purchase and Planting of Trees	June 13, 1912
1,994.00	2 years	39.88	July 15, 1916	Installation of Steam Heating in the annex to the Colonial Mansion in Van Cortlandt Park	C.D.P. 312G—Erection of Addition and Installing New Heating Plant, Colonial Mansion, Van Cortlandt Park	July 17, 1912
1,250.00	2 years	25.00	July 20, 1916	Installation of Plumbing, Drainage and Water Supply, in the annex to the Colonial Mansion in Van Cortlandt Park	"	July 17, 1912
9,157.00	2 years	183.14	July 17, 1916	Erection and Completion (excepting plumbing, drainage and water supply system and the steam heating apparatus) of the annex to the Colonial Mansion in Van Cortlandt Park	"	July 17, 1912
360.05	.....	.....	.....	Final Contract for Services for the preparation of complete plans, specifications, etc., and the supervision of the construction of the proposed new addition, etc., to the Colonial Mansion in Van Cortlandt Park	"	July 17, 1912
1,673.00	1 year	.....	.....	Repairs to Colonial Mansion in Van Cortlandt Park	R.D.P. 107—Revenue Bond Fund—Labor and Materials for certain repair work, 1914	June 9, 1914
\$80,514.62		\$5,504.35				

TABLE XI.—SUP
DEPARTMENT OF

Contract Number	Location	Contractor	Date of Execution of Contract	Date of Delivery	Date of Acceptance
38745	Stable, Bronx..	George N. Reinhardt.....	Mar. 5, 1914	Feb. 11, 1914 to July 16, 1914	July 13, 1914
38746	Stores, Bronx..	M. L. Bird Co.....	Feb. 20, 1914	Mar. 3, 1914 to July 30, 1914	July 29, 1914
39992	Stores, Bronx..	M. L. Bird Co.....	June 30, 1914	July 26, 1914 to Dec. 23, 1914	Dec. 30, 1914
38757	Stores, Bronx..	James S. Barrow & Co.....	Mar. 7, 1914	April 27, 1914 to June 30, 1914	June 30, 1914
39385	Stores, Bronx..	Phoenix Sand & Gravel Co.....	May 5, 1914	May 12, 1914 and June 30, 1914	July 6, 1914
40029	Stores, Bronx..	Phoenix Sand & Gravel Co.....	June 30, 1914	July 11, 1914	Aug. 7, 1914
40030	Stores, Bronx..	Upper Hudson Stone Co.....	July 3, 1914	July 8, 1914 to Aug. 15, 1914	Aug. 18, 1914
39384	Stores, Bronx..	Barrett Mfg. Co.....	May 4, 1914	July 3, 1914 to Aug. 18, 1914	Aug. 22, 1914
38758	Stores, Bronx..	East River Mill & L. Co.....	Feb. 27, 1914	April 8, 1914 to June 10, 1914	July 31, 1914
38759	Stores, Bronx..	John Lucas.....	Feb. 27, 1914	Mar. 5, 1914 to Mar. 25, 1914	May 20, 1914
38814	Stores, Bronx..	Manhattan Supply Co.....	Mar. 6, 1914	Mar. 18, 1914 to April 21, 1914	May 14, 1914
39383	Stores, Bronx..	Haverstraw Crushed Stone Co..	May 4, 1914	May 8, 1914 to July 3, 1914	July 5, 1914
38792	Stables, Bronx.	Coldwell Lawn Mower Co.....	Feb. 28, 1914	1914	Oct. 31, 1914
39271	.....	New York Telephone Co.....	Jan. 12, 1914	1914	Dec. 31, 1914
40604	Stores, Bronx..	O. M. Gottesman.....	Oct. 23, 1914	Nov. 24, 1914	.....
40542	Stores, Bronx..	Phoenix Sand and Gravel Co...	Oct. 6, 1914	Sept. 20, 1914 to Nov. 6, 1914	Nov. 19, 1914
40541	Stores, Bronx..	Barrett Mfg. Co.....	Oct. 6, 1914	Sept. 18, 1914 to Nov. 12, 1914	Nov. 30, 1914
40543	Stores, Bronx..	New York Trap Rock Co.....	Oct. 5, 1914	Sept. 24, 1914 to Nov. 18, 1914	Nov. 30, 1914
Total.....					

PLY CONTRACTS

PARKS, BRONX

Total Pay- ments to Date	Face Value of Contract	Quantities	Unit Cost	Character of Supplies	Code and Title of Appropriation
		<i>Cwt.</i>			
\$1,235.88	\$1,235.88	Hay 411.02 Oats 426.60 Straw 154.80 Bran 31.00 Oatmeal. 5.00 Salt 1.00	1.00 1.48 .925 1.30 1.80 1.00	Forage	1219 of 1914 Forage and Veterinary Sup- plies
2,463.09	2,463.09	Egg 826.540	2.98M	Fuel	1220 of 1914—Fuel Supplies
1,698.06	1,698.06	Egg 546.000	3.11M	Fuel	1220 of 1914—Fuel Supplies
406.42	406.42	.....	.....	Hardware	1229-14—General Plant Equipm't 1231-14—Building Materials 1233-14—General Plant Materials
1,378.80	1,378.80	1,200 cubic yards	1.149	Sand Grits	1230 of 1914—Highway Materials
877.80	877.80	840 cubic yards	1.045	Sand Grits	1230 of 1914—Highway Materials
2,205.00	2,205.00	1,260 cubic yards	1.75	Broken Stone	1230 of 1914—Highway Materials
2,047.50	2,047.50	31,500 gallons	.065	Coal Tar	1230 of 1914—Highway Materials
4,054.58	4,054.58	.....	.....	Lumber	1231-14—Building Materials 1233-14—General Plant Materials
1,298.85	1,298.85	.....	.....	Painters' Supplies	1231-14—Building Materials 1233-14—General Plant Materials
1,626.73	1,626.73	.....	.....	Plumbing Supplies	1231-14—Building Materials 1233-14—General Plant Materials
4,725.00	4,725.00	<i>Cu. Yds.</i> Bluestone 2060.4 Screen'gs 439.6	1.89	Broken Stone and Screenings	1230-14—Highway Materials
2,234.00	2,234.00	5 Motor 54 Horse 121 Hand	.....	Repairing and Keeping in Re- pair Motor, Horse and Hand Mowers	1234-14—General Repairs 1241-14—Motor Vehicle Repairs
587.41	587.41	.....	.....	Telephone Service	1238-14—Communication
.....	667.80	.....	.....	Painters' Supplies	RDP-107A—Revenue Bond Fund for Department of Parks, Bronx Labor and Materials for Certain Repair Work, 1914
1,280.47	1,280.47	1,575 cu. yds.	.813	Sand Grits	"
4,173.72	4,173.72	38,354 gals. 24,382 gals.	.0675 .065	Coal Tar	"
9,817.50	9,817.50	<i>Cu. Yds.</i> Bluestone 3328.3 Screen'gs 1921.7	1.87	Trap Rock and Screenings	"
\$42,110.81	\$42,778.61				

TABLE XII.—EDUCATIONAL

	Green-house Bronx Park	Cost Per Acre of Parks	Nursery Van Cort- landt Park	Cost Per Acre of Parks	Stables Bronx Park	Cost Per Horse Per Day
OPERATION:						
Labor.....	\$16,789.65	\$4.5769	\$7,455.24	\$2.0323	\$11,772.95	\$1.6976
Forage and Supplies.....					2,410.62	.3476
Veterinary Service.....					23.00	.0033
Veterinary Supplies.....					20.00	.0029
Medical and Surgical Supplies.....					7.86	.0011
Cleaning and Disinfecting Supplies.....	3.27	.0009			23.49	.0034
Botanical and Agricultural Supplies.....	355.14	.0968	1,386.50	.3779		
Fuel Supplies.....	1,856.73	.5061			227.11	.0328
General Plant Supplies.....	32.99	.0089			33.29	.0048
Carfare.....			2.80	.0007		
Telephone Service.....	41.65	.0113			41.63	.0060
Vacation and Lost Time.....	581.50	.1585	398.00	.1084	871.00	.1257
Hire of Horses and Vehicles with Drivers.....	1,225.75	.3341	895.87	.2442	108.00	.0163
<i>Shoeing</i>						
Departmental Labor.....						
Departmental Materials.....						
Contract or Open Order Service.....					796.38	.1147
<i>Boarding</i>						
Contract or Open Order Service.....						
Hire of Omnibuses, Storage, Etc.....						
Total.....	\$20,886.68		\$10,138.41		\$16,335.33	
Cost Per Horse Per Day—19 horses used in 1914.....						2.356
Cost Per Acre of Parks.....		5.6935		2.7635		
MAINTENANCE:						
Purchase of Live Stock.....						Cost Per Acre of Parks
<i>Carriages and Buggies</i>						
Replacements.....					360.48	.0982
Departmental Repairs, Labor.....					116.36	.0317
Departmental Repairs, Materials.....						
Repairs, Contract or Open Order Service.....					5.50	.0015
<i>Carts and Wagons</i>						
Replacements.....					953.50	.2600
Departmental Repairs, Labor.....					280.20	.0763
Departmental Repairs, Material.....						
Repairs, Contract or Open Order Service.....						
<i>General Plant Equipment</i>						
Replacements.....	130.55	.0350	32.12	.0087	154.88	.0422
Departmental Repairs, Labor.....	332.88	.0907			1,075.76	.2933
Departmental Repairs, Material.....	52.62	.0143			65.01	.0177
Repairs, Contract or Open Order Service.....						
<i>Building Repairs</i>						
Departmental Labor.....	4,067.44	1.1088	185.75	.0506	2,038.68	.5558
Departmental Materials.....	1,081.76	.2948	33.15	.0090	985.96	.2688
Contract or Open Order Service.....	175.25	.0477				
Total.....	5,840.50		251.02		6,036.33	
Cost Per Acre of Parks.....		1.5913		.0683		1.6458
Grand Total.....	\$26,727.18		\$10,389.43		\$22,371.66	
Cost Per Acre of Parks.....		7.2848		2.8318		
Total Acreage of Parks.....						

AND OPERATIVE ACTIVITIES

Shops Overhead	Cost Per Acre of Parks	Stone Crusher	Cost Per Acre of Parks	Omnibus Line Pelham Bay Park	Cost Per Acre of Parks	Increase Over 1913	Decrease Under 1913	Net Increase
\$4,272.75	\$1.1652	\$3,371.83	\$.9191	\$4,084.76	\$1.1135	\$7,596.28	.....	.....
.....	.....	.....	.....	.....	.....	116.18	.....	.....
.....	.....	.....	.....	.....	.....	23.00	.....	.....
.....	.....	.....	.....	.....	.....	2.02	.....	.....
.....	.....	.....	.....	.....	.....	.....	\$34.23	.....
1.03	.0003	.....	.....	.....	.....	.....	9.78	.....
.....	.....	.....	.....	.....	.....	.....	2,297.91	.....
276.44	.0753	124.40	.0339	.....	.....	569.25	.....	.....
20.11	.0054	26.74	.0072	2,320.66	.6326	2,321.29	.....	.....
91.40	.0249	.....	.....	.....	.....	.....	82.85	.....
67.94	.0185	.....	.....	.....	.....	.....	7.06	.....
1,648.00	.4492	.....	.....	.....	.....	.....	648.00	.....
.....
291.00	.0793	502.50	.1369	.....	.....	1,088.12	.....	.....
.....
.....	.....	.....	.....	.....	.....	.....	351.44	.....
.....
.....	.....	.....	.....	4,734.50	1.2906	4,734.50	.....	.....
<u>\$6,668.67</u>	.....	<u>\$4,025.47</u>	.....	<u>\$11,139.92</u>	.....	<u>\$16,450.64</u>	<u>\$3,431.27</u>	.....
.....	.....	.....	.....	.....	.....	.....	\$13,019.37 Net	.....
.....	1.8181	.....	1.0971	.....	3.0367	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	\$450.00	.....
.....	.....	.....	.....	.....	.....	.....	945.02	.....
.....	.....	.....	.....	.....	.....	.....	118.28	.....
.....	.....	.....	.....	.....	.....	.....	33.00	.....
.....	.....	.....	.....	.....	.....	.....	13.03	.....
.....	.....	.....	.....	.....	.....	.....	5.54	.....
.....	.....	.....	.....	.....	.....	.....	2.00	.....
748.26	.2039	12.68	.0034	10.84	.0028	.....	210.75	.....
821.04	.2238	60.38	.0164	9.25	.0025	.....	399.28	.....
210.75	.0574	68.35	.0186	.60	.0001	168.37	.....	.....
.....
2.00	.0005	.....	.....	.....	.....	.....	293.67	.....
.....
198.50	.0541	.....	.....	.....	.....	1,891.62	.....	.....
52.01	.0141	.....	.....	.....	.....	1,399.49	.....	.....
.....	.....	.....	.....	.....	.....	75.50	.....	.....
<u>\$2,032.56</u>	.....	<u>\$141.41</u>	.....	<u>\$20.69</u>	.....	<u>\$3,534.98</u>	<u>\$2,470.57</u>	.....
.....	.5538	.....	.0384	.....	.0054	.....	.....	.....
<u>\$8,701.23</u>	.....	<u>\$4,166.88</u>	.....	<u>\$11,160.61</u>	.....	<u>\$19,985.62</u>	<u>\$5,901.84</u>	<u>\$14,083.78</u>
.....	2.3719	.....	1.1355	.....	3.0421	.....	.....	.....
.....
.....	.....	.....	.....	.....	.....	.....	3,668.31	.....

TABLE XIII.—MAINTENANCE OF GENERAL PARK EQUIPMENT

	Replacements	Departmental Repairs		Repairs, Contract or Open Order Service	Horses and Vehicles with Drivers	Total for Year	Cost Per Acre of Parks	Increase Over 1913	Decrease Under 1913
		Labor	Materials						
HIGHWAY EQUIPMENT:									
Water, Oil and Asphalt Wagons.....		\$718.18	\$44.75			\$762.93	\$.207	\$404.39	
Road Rollers and Road Harrows.....	25.00	401.73	397.75	\$49.00		\$873.48	.238		\$604.28
Snow Plows.....	26.61	94.38	26.71			\$147.70	.040		48.48
Other Highway Equipment.....	232.69	34.75	34.46			301.90	.082	190.38	
Total.....	\$284.30	\$1,249.04	\$503.67	\$49.00		\$2,086.01		\$594.77	\$652.76
Cost Per Square Yard of Highways.....	.0004	.0021	.0008	.0001		.0034			
Cost Per Acre of Parks.....	.077	.340	.137	.0013			.567		
BOTANICAL AND AGRICULTURAL EQUIPMENT:									
Garden Tools and Implements.....	\$199.28	\$616.88	\$12.78			\$828.94	\$.225		\$6.54
Lawnmowers and Grasscutters.....	101.58	173.94	91.05	\$2,234.00	\$25.00	2,625.57	.715		902.19
Spraying Equipment.....	49.60	67.44	6.05			123.09	.033		2,156.83
Pruning Equipment.....	16.15	190.87	3.29			210.31	.057		385.84
Total.....	\$366.61	\$1,049.13	\$113.17	\$2,234.00	\$25.00	\$3,787.91			\$3,451.40
Cost Per Acre of Parks.....	.099	.285	.0308	.609	.0068		1.030		
GENERAL EQUIPMENT:									
Wheelbarrows and Hand Carts.....	\$69.42	\$173.56	\$80.27			\$323.25	\$.088	\$287.27	
Other General Equipment.....	635.14	462.81	152.55	\$5.25		1,255.75	.342	849.53	
Total.....	\$704.56	\$636.37	\$232.82	\$5.25		\$1,579.00		\$1,136.80	
Cost Per Acre of Parks.....	.192	.173	.063	.0014			.430		
Grand Total.....	\$1,355.47	\$2,934.54	\$849.66	\$2,288.25	\$25.00	\$7,452.92		\$1,731.57	\$4,104.16
Cost Per Acre of Parks.....	.369	.799	.231	.623	.0068		2.03		\$2,372.59 Net
Total Acreage of Parks.....							3,668.31		

TABLE XIX

Index.	DEPARTMENT OF PARKS, BOROUGH OF THE BRONX.				SEWERS.																			
	--- PARKS. ---				Brick		Vitrified Pipe.				Brick		Mileage.											
	Manholes	Surface	Receiving	Road & Walk	36" 60'	96"	6" 8"	12" 15"	18" 24"	36" 60'	96"	6" 8"	12" 15"	18" 24"	Brick	Vitrified Pipe								
1		2	6	6			290	890	1260	400				36	60	96	0.05	0.15	0.13	0.07				
1	<i>Bronx Park.</i>	3	35	35			8.50	54.00	5100	1270	2200						0.16	1.02	0.96	0.24	0.41			
1	<i>Botanical Garden, Bronx Park.</i>	8	14	14			850	1200	1180		1250						0.16	0.22	0.22		0.23			
2	<i>Zoological Park, Bronx Park.</i>	5	23	23			11.50	890	1890		1290						0.21	0.16	0.35		0.24			
3	<i>Crotone Park.</i>	1	16	16			210	560	2200												0.10	0.41		
4	<i>Devoe Park.</i>						308														0.03			
5	<i>Drake Park (J. Rodman)</i>	1																			0.05			
6	<i>Echo Park.</i>	3	2	9			150	225	850								0.03	0.04	0.16					
7	<i>Fulton Park.</i>	1	6	6			630														0.15			
8	<i>Macombs Dam Park.</i>		4	4																	0.11			
9	<i>Melrose Park.</i>																							
10	<i>Pelham Bay Park.</i>	1	4	4																				
11	<i>Poe Park.</i>																							
12	<i>Rose Hill Park.</i>	1	4	6			400	1230													0.07	0.23		
13	<i>St James Park.</i>	1	2	4			530	850		500											0.10	0.16		
14	<i>Sigel Park (Franz)</i>		22	22																		0.09		
15	<i>St Marys Park.</i>																							
16	<i>St Augustine Park.</i>	9	2	1	10		3100	2300		1700	850						0.58	0.43			0.32	0.16		
17	<i>University Park.</i>	2	2	4																		0.11	0.04	
18	<i>Van Cortlandt Park</i>																							
19	<i>Washington Bridge Park.</i>																							
	--- PARKWAYS ---																							
D	<i>Bronx & Pelham Parkway</i>	2	10	48	1250					11000												0.13		
F	<i>Crotone Parkway</i>	3	10	12	7600																			
G	<i>Moshulu Parkway</i>	5	15	3400	650																			
H	<i>Spuyten Duyvil Parkway</i>	4	4	37	800	11300																0.64		
	TOTAL	44	45	25	274																			
	TOTAL LINEAL FEET.				4750	3100	2300	4238	15595	45330	2950	3200	2720											
	TOTAL MILEAGE.				0.699	0.587	0.435	0.802	2.953	8.585	0.558	0.606	0.515	0.87	10.500	0.43						0.61	2752	10.59

TABLE XX

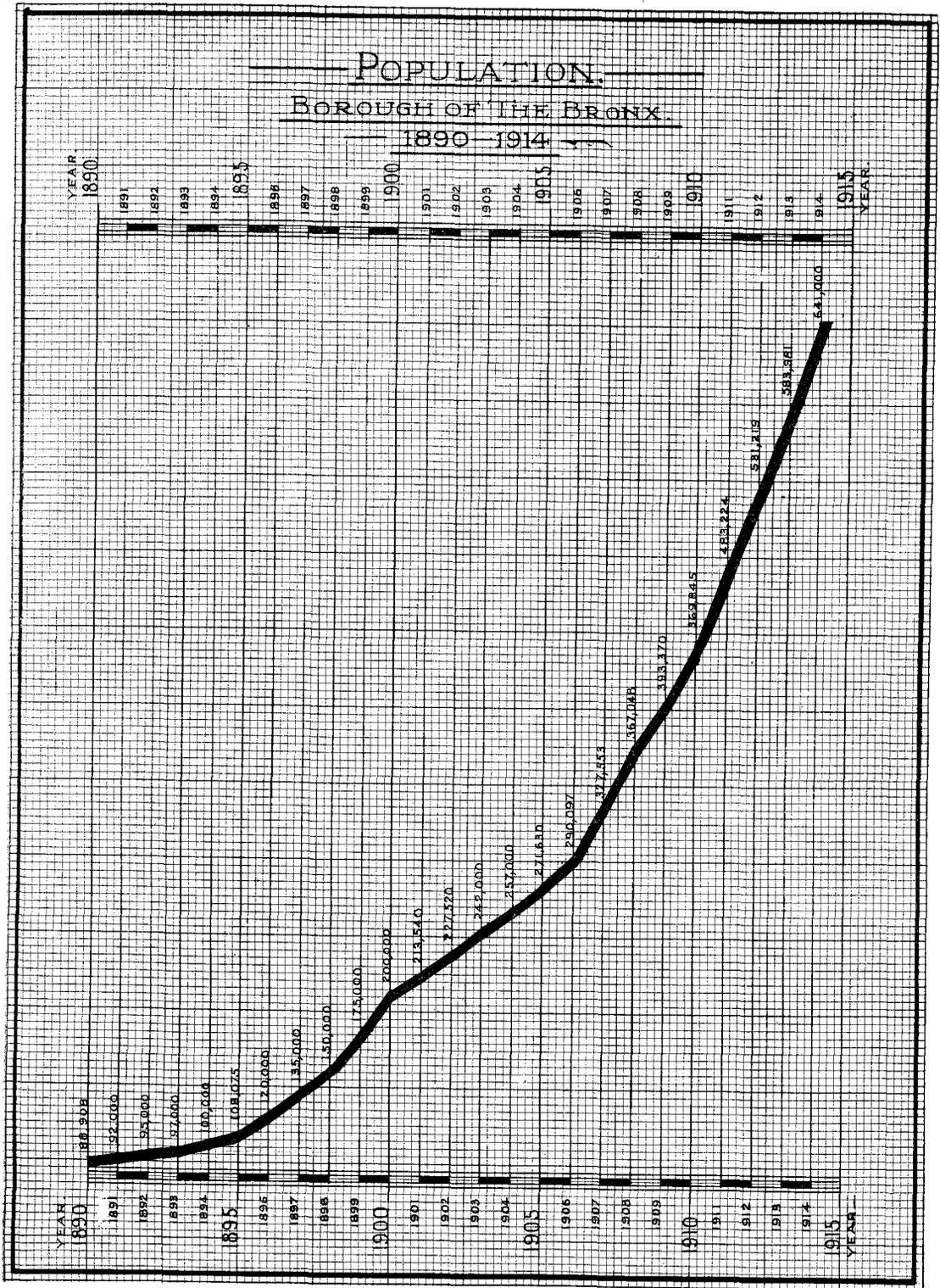


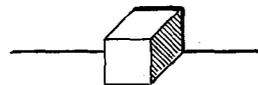
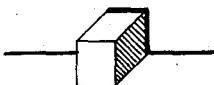
CHART E

DEPARTMENT OF PARKS BOROUGH OF THE BRONX.

YEAR. POPULATION.

1910.	369,845
1911.	483,224
1912.	531,219
1913.	583,981
1914.	641,000

BOROUGH OF THE BRONX,
26,017 ACRES.

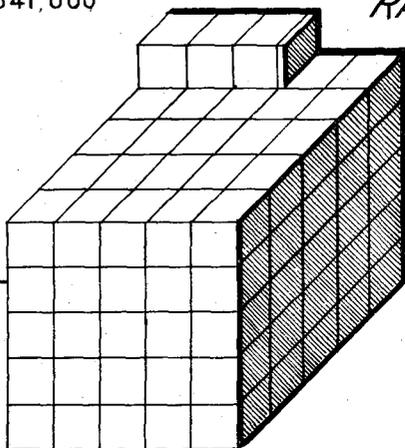


AREA OF PARKS, PARKWAYS,
TRIANGLES ETC. 4169.11 ACRES.

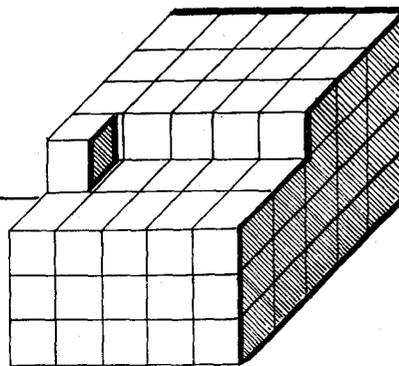
EACH CUBE THIS SIZE
REPRESENTS 500.

RATIO. 154 PERSONS TO 1 ACRE.

APPROPRIATION \$108.²³/₁₀₀ PER ACRE.



POPULATION
BOROUGH OF THE BRONX.
641,000



1913 BUDGET APPROPRIATION \$454,922.13
1914 ————— 453,698.78

PER CAPITA. — .707

TABLE XV—OPERATION AND MAINTENANCE OF AUTOMOBILES

	White Car	Marquette	White Steamer	Ranier	Undis-tributed	Total for Year	Cost per Acre of Parks	Increase over 1913	Decrease under 1913
Operation									
Labor.....	\$1,299.23	\$1,060.59	\$5.13	\$78.24	\$83.17	\$2,526.36	.6887	\$1,110.45	
Cleaning Supplies.....	3.15	1.97		1.17		6.29	.0017		\$17.87
Gasoline.....	355.86	218.66		166.39	16.80	757.71	.2065	127.42	
Other Motor Vehicle Supplies.....	65.54	49.73	3.43	29.28	5.40	153.38	.0418		6.77
Vacation.....	45.50					45.50	.0124	45.50	
Contract or Open Order Service									
Storage and Cleaning.....									
Hire.....									9.90
General Plant Service.....									4.20
Maintenance									
Automobiles									
Purchase of (incl. orig. appurtenances).....		995.00				995.00	.2712	420.00	
Tires and Inner Tubes									
Replacements.....	489.22	464.97		120.77		1,074.96	.2930	310.55	
Departmental Repairs, Labor.....	14.87					14.87	.0040	13.37	
Departmental Repairs, Materials.....		1.00				1.00	.0002	1.00	
Repairs, Contract or Open Order Service.....	11.80	.35			.90	13.05	.0035		9.40
Body and Top									
Replacements.....									
Departmental Repairs, Labor.....	4.58	46.56	7.50	158.75		217.39	.0592	22.83	
Departmental Repairs, Materials.....	4.98	19.53	.66	42.36		67.53	.0184		21.94
Repairs, Contract or Open Order Service.....	4.50	2.15		2.00		8.65	.0023	8.15	
Chassis and Engine									
Replacements.....									
Departmental Repairs, Labor.....	104.88	30.32	100.94	64.88		301.02	.0820		257.92
Departmental Repairs, Materials.....	53.83	22.06	3.00	65.90		144.79	.0394		14.60
Repairs, Contract or Open Order Service.....	130.85	17.00		18.00		165.85	.0452		77.54
Appurtenances									
Replacements.....	37.91	65.72	10.00	10.06	8.00	131.69	.0358	98.70	
Departmental Repairs, Labor.....	2.63	5.43				8.06	.0021		51.34
Departmental Repairs, Material.....									5.64
Repairs, Contract or Open Order Service.....	3.00	.10		1.00		4.10	.0011	2.85	
Total.....	\$2,632.33	\$3,001.14	\$130.66	\$758.80	\$114.27	\$6,637.20		\$2,160.82	\$477.12
Total Cost per Acre of Parks.....	.7175	.8181	.0356	.2068	.0311		1.81	1,683.70 Net	

Automobile Miles During Year..... } No Speedometers on Automobiles During the Year 1914.
Average Operating Cost per Mile... }
Average Total Cost per Mile..... } Speedometers Attached to Automobiles for Year 1915.
Total Acreage of Parks, 3,668.31

MIAP

SEVENTH ANNUAL REPORT

of the

Department of Parks

of the

Borough of Brooklyn

Comprising

FIFTY-FOURTH ANNUAL REPORT

of the

OLD CITY (Now Borough) OF BROOKLYN

FOR THE YEAR 1914

OFFICE OF THE
DEPARTMENT OF PARKS

BOROUGH OF BROOKLYN

LITCHFIELD MANSION, PROSPECT PARK, BROOKLYN

December 31st, 1914.

HON. JOHN PURROY MITCHEL,
Mayor of the City of New York.

Dear Sir:

In compliance with the provisions of the Charter, I send you herewith the report of the work undertaken and accomplished in this Department for the year just closed.

I have the honor to remain,

Very truly yours,
RAYMOND V. INGERSOLL,
Commissioner.

MAP

PART I

GENERAL REVIEW

The Park System:

The Park system of the Borough of Brooklyn at the beginning of 1915 comprises forty-five (45) parks, playgrounds and open spaces, with a total area of 1,141.25 acres, and sixteen (16) parkways and streets with a total length of 29.06 miles. The total assessed valuation of Brooklyn's park properties amounts to approximately seventy-five million dollars (\$75,000,000). Prospect Park alone contains five hundred and twenty-six acres (526 acres). It is conceded to be one of the finest parks anywhere to be found, both from a landscape and from a recreation point of view.

Five parks and one parkway, with an aggregate area of three hundred and seventy-three (373) acres, front on New York Harbor and adjacent waters. These shore-front properties have been only partly developed, but they offer exceptional possibilities. The improvement of the Shore Road has been in progress for a number of years, and the first part of this development, including the construction of a sea wall along the entire water front, will be completed early in 1915. This promises in a few years to be one of the most interesting and picturesque shore-front parks in the world. The development of the other shore properties, including Dyker Beach Park and Canarsie Park, is a matter which should receive serious consideration in the near future. The salt marsh at Dyker Beach can be filled in at comparatively small expense. This would make possible an athletic field of seventy (70) acres in full view of the Bay and the Narrows, and still leave ample space for ornamental park development.

Owing to the large territory of Brooklyn, the extent of park development, and particularly the supply of small neighborhood parks and play spaces, is far from being adequate. In view, however, of the state of the City's financial condition, the immediate thing of importance is the obtaining of full values from present holdings rather than the immediate acquisition of new spaces.

Acquisitions:

No new parks or parkways have been acquired during the past year by purchase. A small gore park, located at Roebling street, Division and Lee avenues, containing .14 of an acre, was turned over from the jurisdiction of the Borough President of Brooklyn to this Department by resolution of the Commissioners of the Sinking Fund. A number of vacant lots were loaned to the Department by generous citizens for temporary playground use.

Personnel of Force:

For the operation of Brooklyn's park system the Department has a force of employees which during 1914 ranged in numbers from six hundred and seventy-four (674) to nine hundred and sixty-one (961). The supervising officers include a Superintendent, Chief Engineer, Secretary, Chief Clerk, Supervisor of Recreation and General Foreman, together with Arboriculturists, Head Gardeners and Foremen. The regular force is divided as follows: clerical, twenty-one (21); engineering, fourteen (14); mechanical, fifty-two (52) tree forces, sixty-three (63); foremen, thirty (30); gardeners, forty-two (42); laborers, two hundred and ninety-four (294); hostlers and drivers, thirty-two (32); playground leaders, eighteen (18); comfort station attendants, forty-one (41); miscellaneous, sixty-seven (67). The Department is fortunate in having in charge of the various divisions of work men who are thoroughly competent and who take their duties seriously. This speaks well for the preceding administration, which was in office for ten years. Successful park administration



COMPLETED SECTION SEA WALL, SHORE ROAD

depends largely upon men discharging such duties as those of foremen and head gardeners. They work at modest rates of pay, and seldom get the public recognition to which they are entitled. The labor forces contain a considerable number of men who have passed the most active period of life, but in the main they give satisfactory service. There is a wholesome spirit of cooperation among the employees of the Department, for which those in charge feel deeply grateful.

Construction Work by Contract:

The most important construction work begun during 1914 under the engineering bureau was on the contract for the completion of the sea wall along the Shore Road, between Latting place and Bay Ridge avenue and between Ninety-second street and Fort Hamilton avenue. This work was begun in the late Spring and is now about seventy-five per cent (75%) completed. Other important work carried on under contract included the cleaning up of Dreamland Park; reconstruction of the southeast section of McLaughlin Park; the construction of new shelter buildings and comfort stations in Linton and Highland Parks; the erection of new propagating houses in Prospect Park; the building of the superstructure of the fourth section of the Central Museum Building; the construction of bituminous and gravel walks, drainage systems, etc., and regulating and grading in the Brooklyn Botanic Garden.

Construction Work by Park Forces:

Improvements carried out by the Park forces under the general direction of the Superintendent comprise the construction of the new farm gardens, McCarren Park; the erection of a comfort station, sidewalk and fence, Dreamland Park; the grading and improvement of Highland Park along Jamaica avenue; the renovation of the Martyr's Monument, Fort Greene Park; the erection of a comfort station, Dyker Beach Park. In Prospect Park a large number of improvements were made, including the improvement of the easterly section along Flatbush avenue; repairing and refilling around the shore line of lake; extensive alterations of buildings at storeyard; repairs and renovation of the Litchfield Mansion; repainting of greenhouses and conservatories. In addition to the improvements noted, extensive planting of trees and shrubs has been carried out in the various parks and on the streets adjoining several parks. The most notable planting work was in Prospect, Sunset and McCarren Parks. New flower gardens and other embellishments of this nature have been developed in Prospect Park. The parkways have received special attention in the past year. Asphalt binder was laid on Bay Ridge Parkway, Lincoln Road, East Plaza street and Bensonhurst Park Drive. Eastern Parkway Extension and Bay Parkway west of Eightieth street were treated with light oil. The maintenance of parkways and streets has been carried on systematically and they are now in fairly good condition. The details of these various operations are described more fully in another section of this report.

General Maintenance Problem:

The problem of maintenance and upkeep of lawns, plantations, roads and paths varies to a considerable degree with the seasons, while the upkeep of buildings and other structures remains more or less constant. With the increased use of the parks by the public, their proper maintenance becomes each year a question requiring closer study, especially so for the reason that the greater intensity of use happens to be coincident with a sharply declining maintenance budget.

Care of the parkways and streets is also a matter demanding serious attention. The main drives in Prospect Park and on the parkways are paved with the old style gravel pavement, on which has been laid a temporary heavy asphaltic coating. This type of wearing surface is good for two or three years, when it begins to deteriorate, thereby necessitating constant expenditures for repairs. In the near future it will be necessary to consider the matter of constructing roadway pavements of a more permanent nature so as to reduce the maintenance cost.

Active Recreation:

There has been a notable development of all playground activities during 1914. New apparatus has been put up where needed, and in some cases superfluous apparatus has been taken out. Platforms have been put in for folk-dancing. Interplayground contests have been organized on a large scale, with children from all the playgrounds participating. The number of festivals and special events in all the parks has been greatly increased. There has been a new system of daily reports from each playground instituted, showing how the day has been spent, what games have been played, and what the attendance has been.

New centers of active recreation have been opened in a number of outlying parks. Thus, at McCarren Park football grounds, six baseball diamonds and three soccer fields were laid out. A sand-pit, wading basin and children's playground at City Park. At Highland Park we have opened new baseball fields, twenty-four tennis courts, and football fields. In Tompkins Park, where the children were formerly not allowed on the grass, an arrangement has been made by which certain sections of the park are open in rotation to play for small children. Motion picture exhibitions were given in many small parks and playgrounds.

In Prospect Park the activities on the picnic grounds have been greatly increased, a platform for folk-dancing being provided, together with a hurdy gurdy to supply music. The number of tennis courts in Prospect Park has been increased from two hundred and twenty-five (225) to three hundred (300), and a new system of assigning courts has been introduced. Previously persons coming to the tennis field in the morning and putting up a net could reserve the court for the entire day. Now a system of rotation of hours has been instituted which, together with the increase in the number of courts, enables about three times as many persons to play as formerly. On one Saturday we have had as many as four thousand (4,000) persons playing there.

New Wading Pool:

A generous citizen, Mr. George D. Pratt, was interested in an experiment for building a cement wading pool in a small park near the Navy Yard where greater facilities for play were needed, but where for certain reasons it did not seem feasible to develop the usual type of playground. This basin is semi-circular and is about sixty feet across. In front of it is a sand area going down to the water like a natural shore, and across the front of the sand-pit is an arbor containing seats for parents. Back of this arbor is a natural space for a playground, which has been fitted out with small swings and other apparatus. The whole effect has been to embellish this attractive little park, and at the same time offer opportunities for active recreation.

Skating:

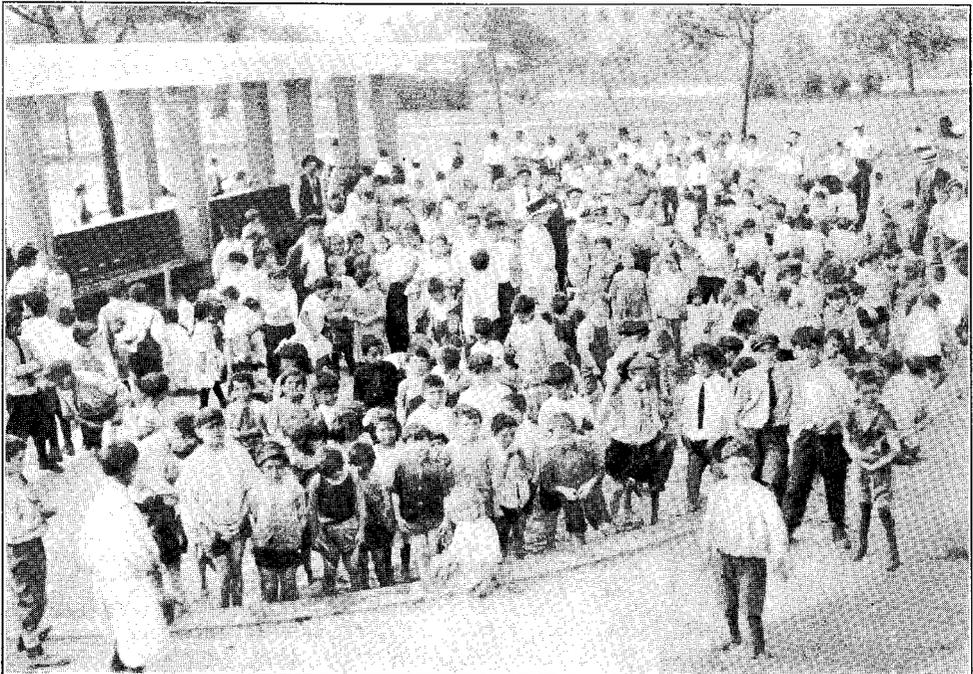
New skating places were developed in December at nine different points in the small parks and playgrounds. The entire cost of constructing them all was less than one thousand dollars (\$1,000). They were in very active use during the Christmas season. At the same time advantage was taken of the fine body of ice on Prospect Park lake. Here we had seventy (70) acres of ice. Chinese lanterns were hung up on special evenings during the holiday week to give a carnival effect. It is estimated that over forty thousand (40,000) persons skated on the lake during one day.

Street Tree Planting:

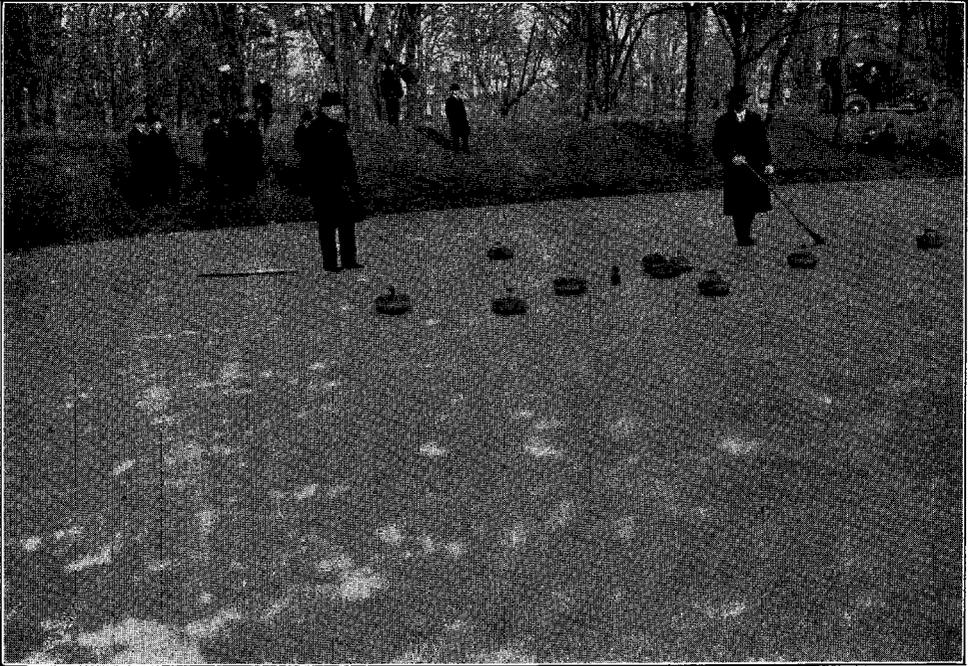
A novel movement for planting street trees has been inaugurated without expense to the taxpayer. A trust fund has been established and the Department is preparing to plant trees for property owners at cost. A flat charge of eight dollars (\$8.00) per tree is made. This charge includes cost of opening sidewalk, preparing ground, putting in top-soil, furnishing tree, tree guard, etc. We, of course, pass upon the variety and location. Actual deposits were made during the Fall of 1914 to cover several hundred trees to be set out in the Spring. Some business concerns have arranged to plant about their factories;



PATHING, DREAMLAND BEACH



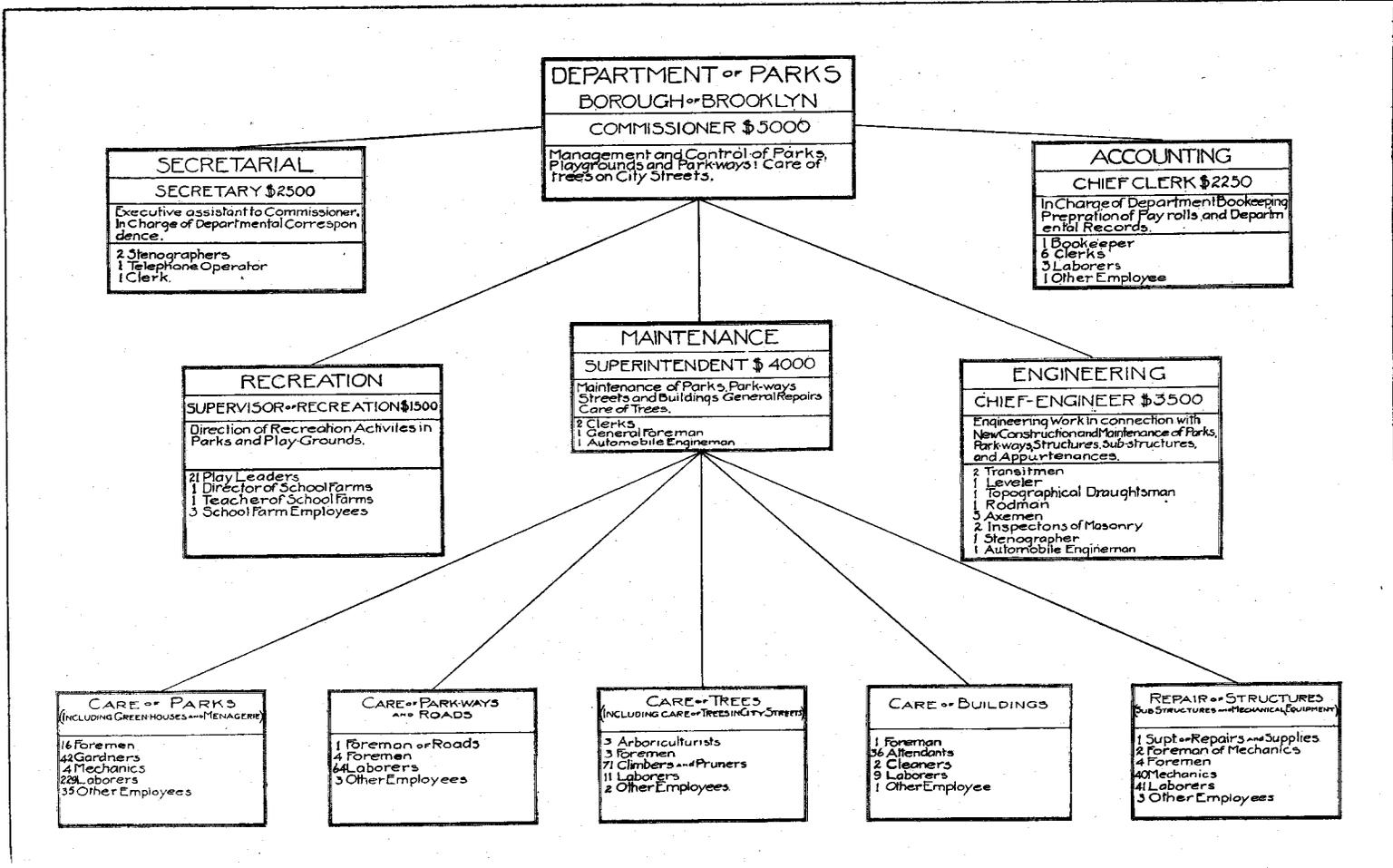
WADING POOL, CITY PARK



CURLING ON LAKE, PROSPECT PARK



ICE SKATING, PROSPECT PARK



some civic organizations have campaigned for systematic block-planting in their particular sections.

The street trees of Brooklyn have hitherto been disappearing at a net rate of fifteen hundred per year. It is hoped in time to overcome this loss. The new trees planted will stand the present street conditions better than the old ones because they are selected from varieties best suited to present conditions.

Eastern Parkway Trees:

Last Spring the tentative plans of the Public Service Commission for constructing a subway on the Eastern Parkway contemplated the sacrifice of the two inner rows of elms for a distance of two miles. This would be a most serious injury to a carefully developed parkway. By taking the matter up vigorously, we were able to get the co-operation of the Public Service Commission and its engineers, and the engineers worked out an entirely new plan of construction whereby, if it is adopted, the trees will be saved.

Enlargement of Menagerie:

As a result of the European War, the Bostock animals had to be disposed of quickly in London as their quarters had been commandeered. This situation was taken up in co-operation with the Brooklyn Eagle, and a successful campaign was carried on for purchasing these animals by public subscriptions. For this purpose three thousand dollars (\$3,000) was raised. About seventy (70) new animals were added to the collection, including seven lions and a leopard. For each of the first few Sundays and holidays following the arrival of the animals, from thirty to fifty thousand people visited the menagerie.

Business Economies:

Considerable has been done in the way of business reorganization so that the Department expects to get along in 1915 with a budget which is ninety thousand dollars (\$90,000) less than the budget for 1914. This was apparently the largest proportional cut made in any departmental budget, except that of the Department of Docks and Ferries. Savings have been made along various lines. A new system of grouping the small parks and putting each group under a foreman gives us a more flexible organization and allows each foreman to have an effective group of men who can be moved from one park to another to do special pieces of work. A large amount of carriage-driving has been done away with, and the drivers have been set to driving trucks, so as to dispose with a large amount of outside team hire. Some of the carriage-driving was dispensed with as superfluous and some of it was made unnecessary by substituting Ford runabouts operated by the inspectors and other men who previously had tried to cover our scattered system in carriages. Great improvement has been effected by a rearrangement and reorganization of the shops. Repairs have been made to the greenhouses, and new propagating houses have been built which in time will lessen the amount spent for the buying of plants. A considerable number of laborers who have been acting as watchmen, with nothing in particular to watch, have been set to more useful duties. These are only a few of the improvements in organization worked out under the able management of the Superintendent.

PART II

DETAILED REPORT

New Construction Addition and Improvements:

Shore Road.—The most important construction work begun during 1914 was the work on the contract for the completion of the sea wall along the Shore Road between Latting place and Bay Ridge avenue and between Ninety-second street and Fort Hamilton avenue. The contract for this work was awarded by the Park Board on April 9, 1914, to Henry Steers, Inc., at a price of two hundred and fifty-nine thousand four hundred and thirty-two

dollars (\$259,432). The work under this contract consists of constructing six thousand six hundred and twenty-four (6,624) linear feet of granite ashlar faced sea wall backed up with concrete; the furnishing and placing of forty-six thousand (46,000) tons of rip rap for widening the sea slopes of the present rip rap foundation on which the sea wall is being constructed; and the furnishing and placing of three hundred and fifty thousand (350,000) cubic yards of earth fill back of the sea wall. The Contractors began work on May 5, 1914, and at the beginning of the present year approximately seventy-five per cent. (75%) of the work has been completed. It is expected that the work will be completed early in the Spring of 1915.

The work of furnishing and placing five hundred thousand (500,000) cubic yards of clean earth fill, which was obtained under an agreement between the Park Department and the Contractors for Sections 1 and 2, Route 11-B, Fourth Avenue Subway, Brooklyn, without cost to the City, has been practically completed.

Dreamland Park.—The cleaning up of debris and wreckage from the site of Dreamland Park, Coney Island, which was begun under contract in 1913, was completed in July, 1914, with the exception of the removal of the steel and concrete cylinder piers which formed a part of the steel chute-the-chute. The original Contractors were unable to remove the steel and concrete piers, and it was necessary to declare the contract abandoned and to advertise another contract for the completion of the work.

McLaughlin Park.—During the construction of the approach to the Manhattan Bridge along the line of the Flatbush avenue Extension, it was necessary to raise the grade of Bridge street which forms the southerly boundary of McLaughlin Park. As the result of this work, the southeast corner of McLaughlin Park was left approximately four feet below the grade of Bridge street, and it was necessary to reconstruct this section of the park so as to bring it up to the existing grade of Bridge street. The contract for this reconstruction was awarded by the Park Board on March 19, 1914, at the contract price of three thousand six hundred and seventy-five dollars and fifty-five cents (\$3,675.55). The work was begun on April 15, 1914, and completed on July 21, 1914.

Linton Park.—A small comfort station for men and women, with exterior walls of brick, work upon which was begun on September 8, 1913, was completed on March 9, 1914, at a cost of six thousand eight hundred and ninety-nine dollars (\$6,899). This comfort station fills a much-needed convenience in this park, which is located in one of the most populous sections of East New York.

Highland Park.—A shelter house and comfort station with exterior walls of brick and stone was completed on December 4, 1914, at a cost of seven thousand six hundred and ninety dollars (\$7,690). The building erected forms the middle section of the shelter house and comfort station for this park, the other two sections of which are to be constructed in the future.

Dyker Beach Park.—The roadway and walks of the timber bridge over the driveway in this park were replanked under contract at a cost of one thousand eight hundred and eighty dollars (\$1,880). The work was begun on January 27, 1914, and completed on April 1, 1914.

Parkways.—Repairs were made under contract on the sheet asphalt traffic roads of Eastern Parkway and Eastern Parkway Extension. The work involved the repairing of two thousand and forty (2,040) square yards of sheet asphalt pavement at a cost of three thousand three hundred and sixty-six dollars and thirteen cents (\$3,366.13).

Brooklyn Institute of Arts and Sciences.—The work on the abandoned contract for the erection of the superstructure of additions F and G, Fourth section of the Museum Building, is ninety-five per cent. (95%) completed at the beginning of 1915, and the work will be entirely completed early in January, 1915. The original contract for this work, amounting to three hundred and eighty-four thousand four hundred and eighty-three dollars (\$384,483), was declared abandoned on November 13, 1913. The contract for the completion of the work was awarded by the Park Board on March 19, 1914, the lowest bid being one hundred and twenty thousand nine hundred dollars (\$120,900).

A contract for the installation of a portion of the permanent steam heating system of the fourth section of the Museum Building is now under way and will be completed at an early date. The amount of the contract is six thousand three hundred and seventy-three dollars (\$6,373).

Brooklyn Botanic Garden.—A contract for the construction of bituminous gravel walks, drainage pipes, etc., was completed on October 31, 1914, at a cost of twenty-two thousand six hundred and seventy-eight dollars and eighty cents (\$22,678.80).

A contract for regulating and grading the northeast corner of the Brooklyn Botanic Garden adjoining the Museum Building was completed on September 12, 1914, at a cost of nine thousand nine hundred and fifty-nine dollars and forty-six cents (\$9,959.46). The carrying out of this work permits the construction of the entrance to the Botanic Garden on Eastern Parkway.

Maintenance and Operation:

The maintenance work of the Department naturally arranges itself according to seasons. During January, February and March, 1914, there was nothing out of the ordinary except the fact that there was a large number of heavy snowfalls. This taxed the forces of the Department to the utmost, and added an unusual item of expense to our operating charges. In connection with the removal of the snow, the Department co-operated with the Department of Street Cleaning, and at a number of points permitted them to dump snow upon park lands.

April and May and the planting season brought unusual activity in the fact that important plans were executed in tree planting at McCarren, Sunset and Prospect Parks. On account of the heavy snowfall, the bulbs that had been planted the Fall before were unusually successful, and the beds were uniformly beautiful.

During May, June, July and August, in addition to the regular work of planting and cultivation, we were required to respond to an unusual demand for grandstands for the proper handling of the exercises and parades attendant upon the celebration of Anniversary Day, the opening of the subway extension, the Field Day of the Public School Girls' Athletic League, Boy Scouts and the national holidays. Owing to a change of policy in the Department toward the use of the parks by the public, the activities at the various picnic grounds were greatly increased.

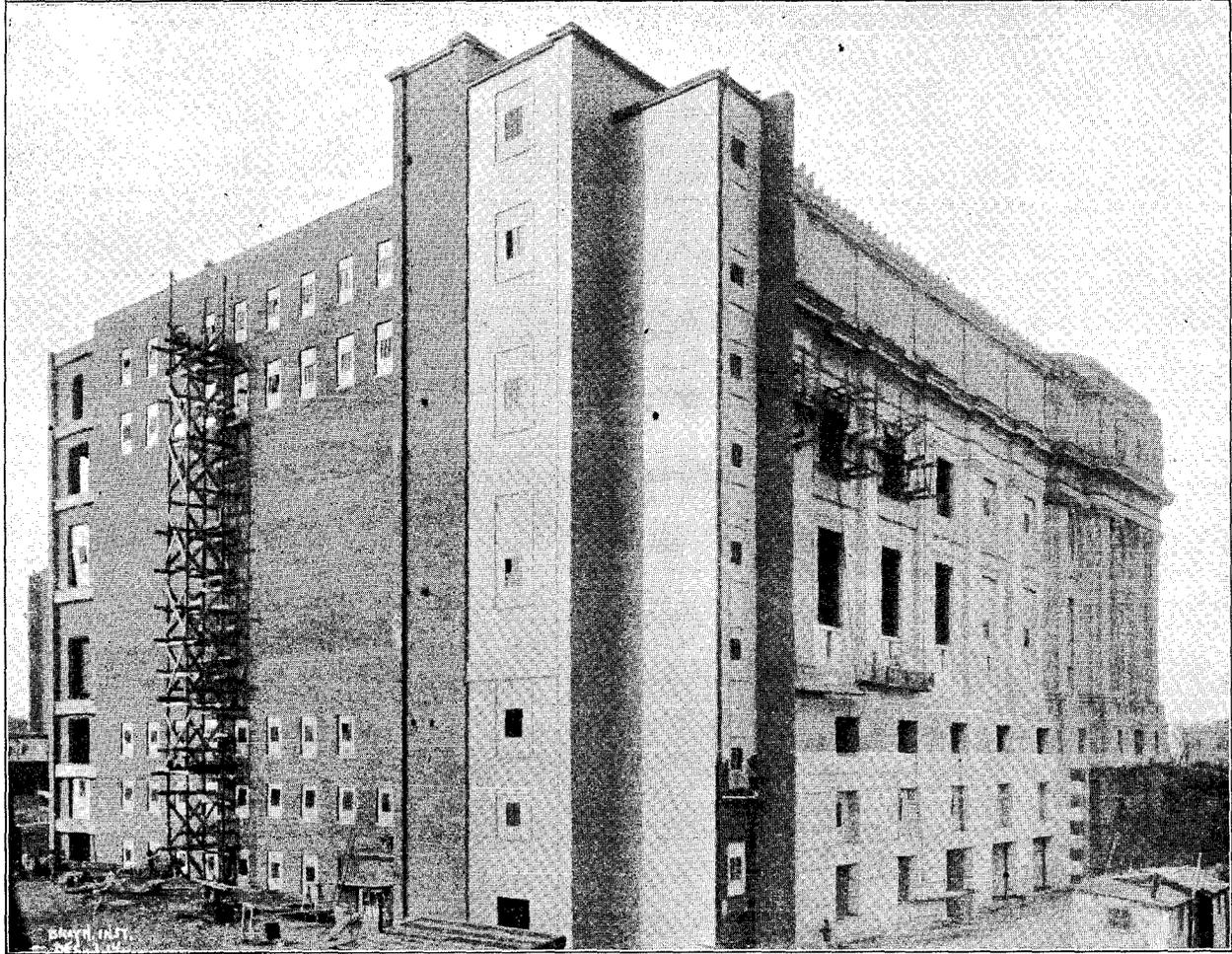
Some particular points that received special attention during the year are as follows:

Coney Island.—At Coney Island the work of cleaning the debris from Dreamland Beach was completed, and a comfort station, sidewalk and fence were built from maintenance funds, and shelter was provided by the building of an open pavilion 130 by 25 feet, together with a small stand for refreshments, 25 by 25 feet. All of these buildings were supplied with water and sewer connections, and the beach opened for the enjoyment of thousands of visitors. East of the concourse, at the southerly end of Ocean Parkway, a bulkhead was constructed 350 feet long to retain a suitable sidewalk that was thereafter constructed leading toward Brighton Beach, and a number of electric lights were installed.

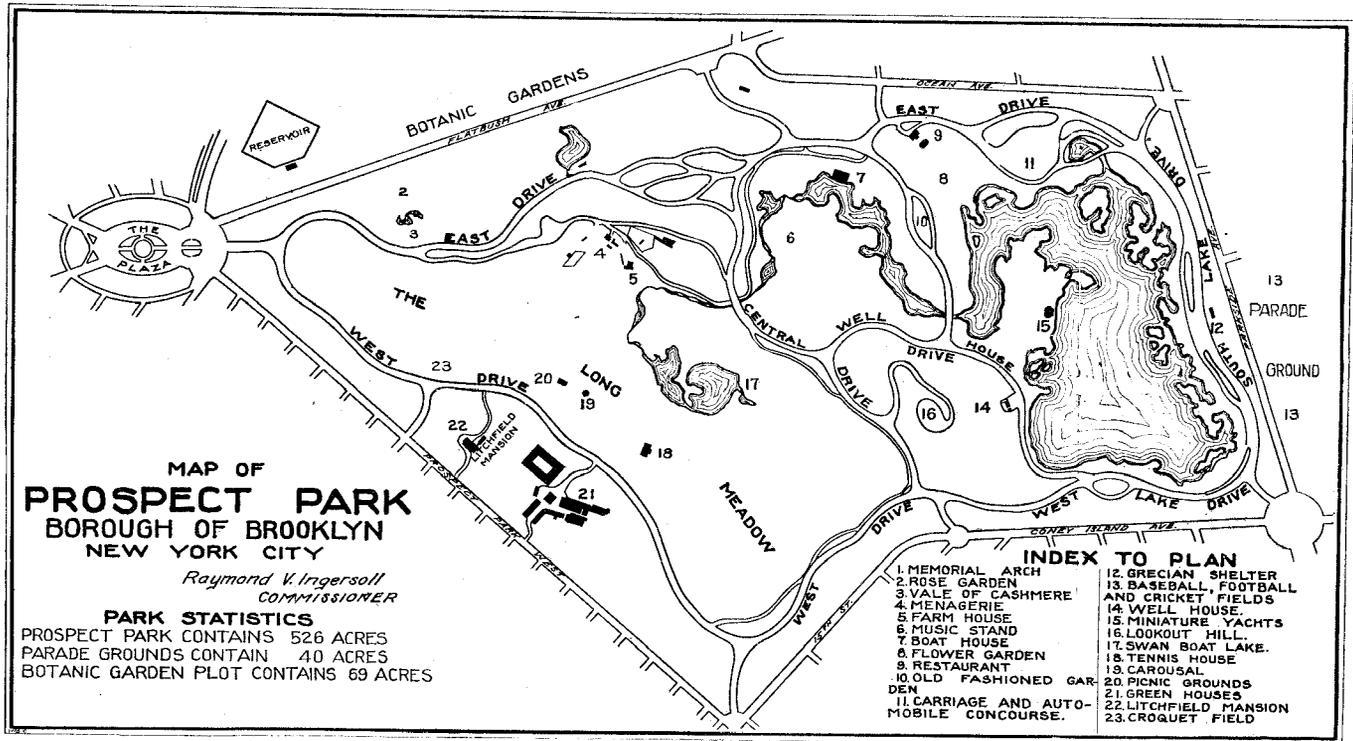
McCarren Park.—At McCarren Park, in addition to very extensive and systematic tree planting, our first Children's Farm Garden was established. On account of the fact that the soil at McCarren Park is very poor, it was necessary to furnish an unusual quantity of topsoil before beginning this operation, and for the purpose of a farm house it was necessary to make extensive alterations to the building that had formerly been used in connection with the Children's Playground. We were obliged to make these preparations in great haste, and were able to open the garden on time.

Sunset Park.—At Sunset Park the extensive planting of shrubs and their subsequent care added materially to the regular work of maintenance at that park, but greatly enhanced its attractiveness.

Highland Park.—At Highland Park extensive grading was carried on and all of the westerly lower section along Jamaica avenue was graded, seeded and brought to a finished condition early in the year. An attractive garden of herbaceous plants was arranged and



NEW WING, CENTRAL MUSEUM



MAP OF
PROSPECT PARK
 BOROUGH OF BROOKLYN
 NEW YORK CITY

Raymond V. Ingersoll
 COMMISSIONER

PARK STATISTICS
 PROSPECT PARK CONTAINS 526 ACRES
 PARADE GROUNDS CONTAIN 40 ACRES
 BOTANIC GARDEN PLOT CONTAINS 69 ACRES

- INDEX TO PLAN**
- | | |
|---|---|
| 1. MEMORIAL ARCH | 12. GRECIAN SHELTER |
| 2. ROSE GARDEN | 13. BASEBALL, FOOTBALL AND CRICKET FIELDS |
| 3. VALE OF CASHMERE | 14. WELL HOUSE |
| 4. MENAGERIE | 15. MINIATURE YACHTS |
| 5. FARM HOUSE | 16. LOOKOUT HILL |
| 6. MUSIC STAND | 17. SWAN BOAT LAKE |
| 7. BOAT HOUSE | 18. TENNIS HOUSE |
| 8. FLOWER GARDEN | 19. CAROUSAL |
| 9. RESTAURANT | 20. PICNIC GROUNDS |
| 10. OLD FASHIONED GARDEN | 21. GREEN HOUSES |
| 11. CARRIAGE AND AUTO-MOBILE CONCOURSE. | 22. LITCHFIELD MANSION |
| | 23. CROQUET FIELD |

planted around the Schenck Mansion, and this, together with the grading and the very active use of the tennis courts, gave the park a very attractive appearance all through the season.

Linton Park.—At Linton Park a new comfort station was completed and opened. This made necessary some material changes in the arrangement of park walks, and called for a special amount of planting and rearrangement of shrubs.

McKibben Street Playground.—At McKibben Street Playground a new fence was built that greatly increased the attractiveness of the grounds. Adjacent to the playground, upon a lot lent to the Department by the Wall Rope Company, the Park forces graded a field for a baseball diamond and erected a back-stop. In the playground proper some of the apparatus was rearranged and the available space greatly improved and increased.

Fort Greene Park; Martyrs' Monument.—At Fort Greene Park a considerable number of trees were planted. A thorough overhauling and reconstruction of the interior of the Martyrs' Monument, and the bronze work on top of it, were completed. This had been neglected for so long that it required a large amount of work. After it was finished and the electric elevator was put in operation, the top of the monument was enclosed with a bronze grill to prevent accidents to sightseers, and the monument was thrown open to the public. Since then, numbers of people have made the ascent and enjoyed the wonderful panorama of the five boroughs attained from its summit. A large bronze eagle which had been stolen from a corner at the foot of the monument and badly mutilated, was restored to its usual beauty and replaced on its pedestal by departmental labor.

Dyker Beach Park.—At Dyker Beach Park a comfort station was built out of maintenance funds, and repairs were made to the bridges. The reconstruction of the sluiceway was effected, and a number of low places filled in. The main roadway was resurfaced with asphalt binder.

Bensonhurst Park.—At Bensonhurst Park an extensive fill was made, extending the park area to the beach. The drive was surfaced with asphalt binder. A number of trees and shrubs were planted, and electric lights were installed.

Canarsie Park.—At Canarsie Park a number of trees were planted, and some necessary repairs were made to the roof of the old Dutch Mansion. This building is very interesting, and its complete restoration would be justified in view of the fact that it was built previous to 1700.

Prospect Park.—Prospect Park is the most important park in the Brooklyn system, and during the past year a large amount of reconstruction work and a considerable number of improvements have been carried out. New flower beds have been laid out and planted in the vales adjacent to the Litchfield Mansion. The easterly section of the park adjacent to Flatbush Avenue has been improved by the filling in of the duck pond and the construction of a new surface road from Flatbush Avenue, which is to be improved and used as a new bridle road. New walks were constructed around and leading to the new shelter house and comfort station at Willink Entrance, and a considerable amount of planting carried out in this vicinity. The shores of the lake and the water courses have been repaired and a number of shallow places filled in around the shore line, so as to prevent the undermining of the banks and of a number of trees. The heating plant in the Litchfield Mansion has been thoroughly overhauled and enlarged and the entire building has been renovated and restored. The interior of the new storehouse has been fitted with new store fixtures throughout, and the courtyard and approach to this building have been paved with a cement grouted stone pavement. The old storehouse has been rebuilt and improved by the installation of a new hot water heating plant, a drying room for the convenience of employees doing outside work, and a club room where employees can meet at lunch hour and after hours for meetings. Propagating houses have been rebuilt and extended, all the greenhouses and conservatories painted and repaired and the heating plants thoroughly overhauled. The garage has been rebuilt and extended so as to make ample provision for the storage of additional motor cars and motor trucks acquired by the Department. Sheds around the brick stable have been rebuilt and enlarged; new quarters have been

provided in the old storehouse for the plumbing and paint shops, and alterations and improvements made at the blacksmith's shop, wheelwright's shop and carpenter shop. At the menagerie building the heating plant has been enlarged and improved, and the houses made as sanitary as possible. A large frame building for use as a skate house has been constructed, which it is intended to remove to the Peninsula for use during the summer months. Alterations have been made to the interior of the old "Well House," which is to be fitted out as a comfort station. The drives and walks in the park were regularly cleaned and repaired, and the lawns and plantations maintained in good condition.

The maintenance of park and street trees and plantations is covered in more detail under a separate heading.

Parkways.—The roadways of Bay Ridge Parkway, between Fourth Avenue and Fort Hamilton, Lincoln Road, East Plaza Street, Bensonhurst Park Drive and Dyker Beach Park have been improved by the laying of a heavy asphaltic carpet surfacing. The roadway surfaces of Bay Parkway west of Eightieth Street, and Eastern Parkway Extension, were treated with a coating of light asphaltic oil. Sheet asphalt traffic roads of Eastern Parkway and Eastern Parkway Extension were repaired under contract; all of the roadways were regularly cleaned and repaired. The parking spaces and sidewalks of all parkways were maintained in good condition.

Work Under Way:

At the close of 1914 we have under way a number of projects for which money is already available. Mention may be made of the following: construction of jetties at Coney Island for beach protection; extension of permanent irrigation pipes in Prospect Park; sewer connections in Prospect Park to do away with all existing cesspools; building of enlarged farm house at McCarren Park; reconstruction and improvement of plaza at Fifteenth Street and Ninth Avenue; disposition of two hundred and fifty thousand (250,000) cubic yards of fill on the Shore Drive; laying of walks in Botanic Garden; new building at menagerie, development of Duck Pond section; and important planting projects for Prospect and Sunset Parks; and for the back line of Dreamland Beach. Provision is also being made for a complete new carousel at the picnic grounds. Plans have been prepared for a separate bridle path entrance to Prospect Park.

Protection of Persons and Property:

During the past year the Department has experienced considerable trouble with vandalism at night, especially in some of the small parks. This trouble was in several cases aggravated by lack of proper lighting facilities. With the co-operation of the Department of Water Supply, Gas and Electricity, sufficient lights were installed and the objectionable conditions considerably improved. Difficulties in this respect have also been somewhat relieved by the co-operation of the Police Department, which has established special details for the Spring, Summer and Fall at a number of points where they were deemed most necessary. The Department has sought to obtain the aid of the school children of Brooklyn in caring for park property. Letters were sent to every public school principal in Brooklyn, and to the heads of each parochial school, appealing to the children for aid in this respect and for the observance of certain lines of action in relation to shrubs and flowers. Advice of this sort was also printed on all music programs. Two employees of the Department who were made special officers did most effective work in arresting and convicting nearly two hundred offenders for vandalism and other willful misconduct.

For general police protection in Prospect Park reliance is placed mainly upon the regular force of the 173rd Precinct. The precinct headquarters are in the Field House on the Parade Grounds, and the force of sixty-six men is assigned to duty exclusively in and around Prospect Park. By this regular force three hundred and forty-eight (348) arrests were made during the year, mostly for petty offences, and the records show that one hundred and sixty (160) persons were aided in various ways.

Concessions:

The most important concessions are the catering and refectories at Prospect Park and on the Coney Island beaches, boating and skate-renting privileges in Prospect Park, and the operation of the carousel at the picnic grounds. Efforts have been made to have these functions serve the convenience of the public at reasonable prices. They brought in an aggregate revenue for the year amounting to eighteen thousand and one hundred and eighty-seven dollars (\$18,187).

Water Supply:

The water supply for all parks and parkways is obtained from the City mains. Previous to 1914 a large part of the water supplies in Prospect Park was obtained by pumping at the "Well House." The supply of water in Prospect Park is not entirely adequate, especially in a dry season, but it is hoped that when the Catskill system is put in operation that a sufficient supply can be readily obtained. The system of distributing pipes also is decidedly insufficient, which necessitates the use of long lines of hose and employment of sprinkling carts to get sufficient water for irrigation of lawns and plantations. This situation will soon be remedied, at least in part, by the laying of more service pipes. In the smaller parks the water supply needed for the comfort stations, irrigation purposes and bubble fountains is supplied from the City mains and is generally sufficient to satisfy all needs.

Lighting:

Most of the parks, with the exception of a few of the smaller ones, are now lighted by electricity. During the past year the lighting system of Saratoga Park was changed from the gas mantle type to the Tungsten lamp, and new electric lighting systems were installed in McCarren Park and Bensonhurst Park. The cost of supplying all light in parks and on parkways is taken care of by the Department of Water Supply, Gas and Electricity in their annual budget.

Parkway and Street Pavements:

The permanent pavements on the parkways and streets under this Department consist of sheet asphalt, asphalt block, Belgian and granite block and brick.

The watering for dust prevention, and the cleaning and repairing of these highways are carried on by the departmental forces, with the exception of repairs to asphalt pavements, which are performed under contract. During the past year the Department has experimented to a slight extent with calcium chloride and water white oil for the purpose of more effective elimination of dust. The matter of dust prevention on the bridle paths in Prospect Park and on Ocean Parkway is an item of considerable expense, and the use of light odorless oil in place of the old method of sprinkling by water will undoubtedly result in a more economical and satisfactory administration of these roads.

The repairing of all roadways, with the exception of those with surfaces of sheet or block asphalt, is carried on by the Park forces under the immediate supervision of the Foreman in charge of roads. The main drives in Prospect Park and on Ocean Parkway and Eastern Parkway are constructed of gravel with a temporary asphaltic carpet surfacing. A large part of this surface was laid three years ago and is now beginning to show considerable wear. A more permanent type of pavement would greatly reduce maintenance cost.

Structures:

There are sixty-six buildings in the parks and playgrounds. Twenty-three of these are wooden frame buildings, generally of a temporary nature, and forty-three are of stone and brick construction. Most of the buildings are used as shelter houses and comfort stations, and are subject to considerable wear and tear. General repairs and alterations to structures are performed by the departmental mechanics under the supervision of the Superintendent of Repairs and Supplies and a Foreman of Mechanics. The work undertaken comprises repairs to exteriors and interiors of buildings, repairs to water, plumbing and heating systems; the building of temporary frame buildings for use as comfort stations and shelter

buildings; alterations and extensions to present buildings; repairs and alterations to fountains, walls, bridges, sewers and water pipes.

Arboricultural Work:

Work in arboriculture varies during the year, and plans have to be made ahead to meet the peculiar requirements of the seasons. During the winter dead and diseased trees which had been marked for removal the previous fall were taken down, cut up and given to the Bureau of Charities. In the Spring all efforts were concentrated on planting. The available trees and shrubs were distributed in places where they were needed most. In Prospect Park alone two thousand eight hundred and eighty-two (2,882) were set out. Simultaneous with the planting also came spraying for sucking insects. There are a number of these pests common to the trees of this Borough. The oyster shell scale, the cottony maple scale, scurfy scale, San Jose scale, sugar maple phenacoccus, golden oak scale, tulip tree scale, pine leaf scale and plant lice are some of the most important ones. The fight against them had to be both timely and carefully carried out with special consideration of the habits and life history of each. Spraying for caterpillars and the elm leaf beetle was commenced in the latter part of May and carried on for over six weeks in the entire Borough, both on the streets and in the parks.

During the hot summer months all the young trees were cultivated and watered, and in the late Fall they were fertilized with manure and leaf mold taken from a compost prepared in Prospect Park. In August commenced the season for pruning superfluous, dead and diseased branches. This is a hazardous work and the men engaged in it must often take great risks. The men must also observe fundamental principles in connection with this work, such as close cuts, under-cuts, wound dressing, etc., and they are constantly taught these by the arboriculturists both verbally and in writing. Fall is the season when attention is given to insects that bore into the wood of trees. The most important species of these insects are the leopard moth—a serious enemy of our silver maples and elms; the elm borer, the bronze birch borer, the hickory bark borer, the linden sawperda and the two-lined chestnut borer. As each of these species of insects has its special kinds of trees which it prefers to attack, many of these insects are only found in the parks and not on streets, where the variety of tree species is limited. The removal of fungous growths, dressing of wounds, attention to slime flux and similar diseases, loosening tree guards, treating and filling cavities, fastening trees that have a tendency to split, and placing labels on the prominent trees along the walks in all the parks, inspecting trees on City streets, issuing permits, and controlling pruning done by private owners, are other forms of attention which devolve upon those in charge of municipal trees.

Street Tree Planting:

An important movement has been started for planting of street trees out of funds paid in by individual property owners. This has already been set forth in Part I of the present report.

Music:

Much has been done to secure a better quality of music during the past summer. This has been accomplished by care in selection of leaders and by prescribing instrumentation. Considerable attention has been given to working out the programs. A schedule for the entire season was made early in the year. This enabled each leader to know when his concerts would come up so that he could make suitable arrangements in advance. Hitherto much of the music had been let out from week to week. This new method also made it possible to print the entire summer schedule on each of the band programs, so that persons taking them home one week could tell where there would be a concert the following week. Care was taken not to have two concerts on the same Sunday in small parks close to each other, but to have them alternate. There has been much overlapping of this sort in the past.

RECREATION FACILITIES

PARK, PLAYGROUND OR PARKWAY	Total Area in Acres	Total Area for Playground Use	No. of Playfields	General Playground Use	Hockey	Bowling Green	Tennis	Croquet	Picnic Grounds	Ice Hockey	Football	Skating	Boating	Baseball	Golf	Running Tracks	Wading Pools	Farm Gardens	Cricket	Polo	Bathing	Curling	Bridle Paths	
		Acres		Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Miles	
Canarsie Park.....	30.50	7.00	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
City Park.....	7.50	2.00	4	1.83	.....	.....	.....	N. Sec. 0.02	.....	.....	.....	.....	.....	W. Sec. 0.10	.....	.....	E. Sec. 0.05	.....	.....	.....	.....	.....	.....
Dreamland.....	14.70	14.70	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	N. Sec. 8.20	.....	.....	.....	.....	.....	.....	6.50	.....	.....
Dyker Beach Park.....	139.80	95.00	2	.....	.....	.....	.....	.....	.....	.....	.....	S. Sec. 55.00	.....	.....	W. Sec. 40.00	.....	.....	.....	.....	.....	.....	.....	.....
Highland Park.....	42.58	18.50	3	.....	.....	.....	W. Sec. 3.50	.....	.....	.....	S. E. Sec. *14.00	S. Sec. 1.00	.....	S. E. Sec. 14.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
McCarren Park.....	38.42	33.00	9	27.00	.....	.....	Plot #1 *2.83	Plot #5 0.02	.....	Plot #1 *0.25	*1.00	*2.83	.....	*1.00	.....	Plot #1 ¼ Mi.	.....	Plot #5 0.20	.....	.....	.....	.....	.....
McLaughlin Park.....	3.30	3.30	4	2.88	.....	.....	Plot #5 0.50	.....	.....	.....	1.00	.....	.....	*1.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
Prospect Park.....	526.00	97.66	8	.....	9th St. Ent. 8.00	.....	West End Long Meadows 34.00	3rd St. Ent. 1.00	3rd St. Ent. 10.00	Lakes 0.50	.....	N. W. Sec. 0.10	Lakes *33.00	.....	.....	Central ⅓ Mi. Cross Country 3 Mi.	.....	.....	.....	.....	Lakes 0.16	3.1	.....
Parade Grounds.....	39.50	31.50	3	.....	.....	S. W. Cor. 0.80	.....	.....	.....	.....	N. S. Sec. *20.00	.....	.....	N. S. Sec. *20.00	.....	.....	.....	.....	Center 10.70	N. S. Sec. *20.00	.....	.....	.....
Bushwick Playground.....	2.80	2.80	5	2.80	.....	.....	E. Sec. †0.10	S. Sec. *0.04	.....	.....	.....	W. Sec. 0.50	.....	N. Sec. 1.40	.....	.....	.....	.....	.....	.....	.....	.....	.....
McKibben Playground.....	1.37	1.37	1	1.37	.....	.....	.....	.....	.....	.....	.....	.....	.....	S. Sec. 0.10	.....	.....	.....	.....	.....	.....	.....	.....	.....
New Lots Playground.....	2.29	2.29	4	2.02	.....	.....	N. & S. Sec. 0.15	S. Sec. 0.02	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Red Hook Playground.....	2.29	2.29	4	1.67	.....	.....	E. & W. Sec. 0.25	W. Sec. 0.04	.....	.....	E. Sec. *0.33	E. Sec. 0.33	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Williamsburg Bridge Playground.....	4.30	4.30	2	4.15	.....	.....	E. & W. Sec. 0.15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
TEMPORARY PLAYFIELDS OPENED 1914																								
Edison Field.....	5.00	5.00	2	*4.00	*4.00	¼ Mi.
Brennan Field.....	4.00	4.00	1	*4.00	*4.00
Gates Playground.....	0.50	0.50	2	0.10	0.40
Myrtle Playground.....	0.50	0.50	1	0.50
Pratt Field.....	2.00	2.00	2	0.10	*1.90	*1.90
Ryans Oval.....	2.00	2.00	1	*2.00	*2.00
Sedgwick Playground.....	2.00	2.00	3	0.75	0.25	1.00

Ocean Parkway Speedway—1 mile long by 70 feet wide.

NOTE (A)

* Same area used for two purposes.
 † Area included in general playground use.

NOTE (B)

GENERAL PLAYGROUND USE—MISCELLANEOUS SPORTS
 Outdoor gymnasium Sand piles
 Quoits Swings
 Dancing Tether tennis
 Volley ball Handball

Parks	Total Number Concerts	Average Attendance Each Concert
Prospect.....	36	10,000-12,000
Sunset.....	12	3,500- 4,000
Fort Greene.....	9	3,000- 3,500
Winthrop.....	10	3,000- 3,500
Saratoga.....	3	2,000
Irving Square.....	3	1,000
Red Hook.....	3	1,000
Lincoln Terrace.....	2	2,500
Bensonhurst.....	2	500- 750
Amersfort.....	2	350- 500
Cooper.....	2	1,000- 1,500
Bushwick.....	2	500- 750
Dreamland.....	1	5,000
City.....	1	Dedication of Wading Basin
McCarren.....	2	Christmas and New Year's Eves
Betsy Head.....	1	Breaking ground for playground 20,000

Wild Life:

Considerable attention has been given to protecting and encouraging bird life in Prospect Park. A large number of bird houses have been put up, many of them being gifts from bird lovers. Special provision has been made for wrens and other small song-birds by providing houses with openings too small to allow sparrows or starlings to enter. Shrubs producing berries attractive to birds are being planted on the islands in the lake. In the month of May as many as eighty-five varieties of birds were observed in the park. The names of these varieties can be given upon request.

The old duck house was restored and a beginning in the breeding of a flock of wild ducks has been made. The squirrels have been protected and fed in winter as usual.

Months	Varieties of birds seen
January.....	14
February.....	15
March.....	21
April.....	44
May.....	85
June.....	30
July.....	31
August.....	47
September.....	67
October.....	52
November.....	34
December.....	18

ACTIVE RECREATION

Organization:

Last Spring, for the first time, a Supervisor of Recreation was appointed, whose duty it was to take general charge of the active recreation features of the Department. Under him twenty regular and ten temporary playground Attendants were appointed, whose duties lay in following out the daily program assigned for each play center.

Activities:

Each play leader arranged a program of activities suitable to the existing condition of that particular neighborhood. A composite of the activities would be as follows:

BOYS: Tennis, baseball, basket ball, soccer, handball, volley ball and miscellaneous group games.

GIRLS: Folk-dancing, basketry, raffia work, story telling, miscellaneous group games, tennis, croquet, basket ball, volley ball, etc.

Tournaments:

Both inter and intra tournament schedules were arranged for each play center in tennis, croquet, volley ball, baseball, handball, soccer, basket ball, checkers and dominoes.

Festivals and Special Events:

There has been active cooperation with various groups and organizations in arranging for annual celebrations. There have been scores of May parties. At Prospect Park over one thousand (1,000) Boy Scouts had an interesting Field Day on May 11th. The boys were allowed, under careful restriction, to have about twenty tents in the park during the previous night. They had a large camp fire built upon an old concrete walk covered with sand. There was noticeable damage to the lawns. A similar festival was that of the girls' branch of the Public School Athletic League, held in another section of Prospect Park, on May 19th. A stand was erected at the Memorial Arch for the annual demonstration of the Suffragists. A large grandstand was put up at Prospect Park in connection with the celebration of Subway Day. Grandstands were erected for ceremonies of the Grand Army of the Republic and for the use of the Sunday School children on Anniversary Day. On July 11th dedication exercises were held in connection with the presentation of the Edvard Grieg Monument. The birth of Tom Moore was celebrated by the St. Patrick Society of Brooklyn on May 28th. Elks' Day was celebrated in Prospect Park on June 14th, the oration being delivered by Hon. Martin H. Glynn. The Knights of Columbus had their celebration on July 4th in Prospect Park, and in all the parks of the Borough exercises of various kinds peculiar to the day were held. The German Singers of Brooklyn gave two concerts in Prospect Park, one on June 7th and the other on September 13th, in each of which five hundred (500) voices were heard. The Fifty-second Anniversary of the Battle of Antietam was held on September 19th under the auspices of the War Veterans and Sons' Association at the Music Grove in Prospect Park. Exercises in connection with the dedication of the flag pole erected as a memorial to Monsignor William J. White, and presented to Red Hook Park by William H. Todd, were held on October 24th, under the auspices of the Erie Basin Board of Trade. Cooperation was extended for the erection of three community Christmas trees, one at Borough Hall Park, one at Fulton Park, and one at McCarren Park. The evening lighting of the McCarren Park tree was most effective, and thousands gathered about it all through the Christmas season.

Celebrations were held in the various playgrounds for the purpose of better acquainting the parents of the respective neighborhoods of the aims and activities of the playground. Some of the local celebrations were as follows:

1. BUSHWICK PLAYGROUND:

Second anniversary and celebration in conjunction with the Bushwick League, September 26th.

Fourth of July celebration.

Labor Day celebration.

2. RED HOOK PLAYGROUND:

Parents' Day, June 26th.

Dedication of flag pole presented by Mr. W. H. Todd, Saturday, October 24th.

Fourth of July celebration.

Labor Day celebration.

3. CITY PARK:

Dedication of Wading Pool, Sand Pit and Pergola presented to the City by Mr. George D. Pratt, Wednesday, August 12th.
 Opening of new playground especially for small children, Wednesday, August 12th.
 Labor Day celebration.
 United Neighborhood lawn fête.

4. MCCARREN PARK:

Parents' Day, August 22nd.
 Opening Children's Farm Garden, May 11th.
 July Fourth celebration and Inter-playground athletic meet.
 First Harvest Day of Children's Farm Garden, July 23rd.
 Second and last harvest, October 14th.
 Christmas celebration, December 24th-January 1st in conjunction with Greenpoint Neighborhood Association.
 Labor Day celebration.

5. PROSPECT PARK:

May Fête, May 14th, 7,000 Public School children participating.
 Fourth of July celebration by Safe and Sane League of Brooklyn.
 Boy Scout Manœuvres.
 Labor Day celebration.
 Ice Carnival Christmas week.
 Five hundred and twenty-eight picnics at the picnic grounds.

6. BETSY HEAD MEMORIAL:

Dedication of Playground, Brownsville, October 15th.

*Improvements:***1. RED HOOK PLAYGROUND:**

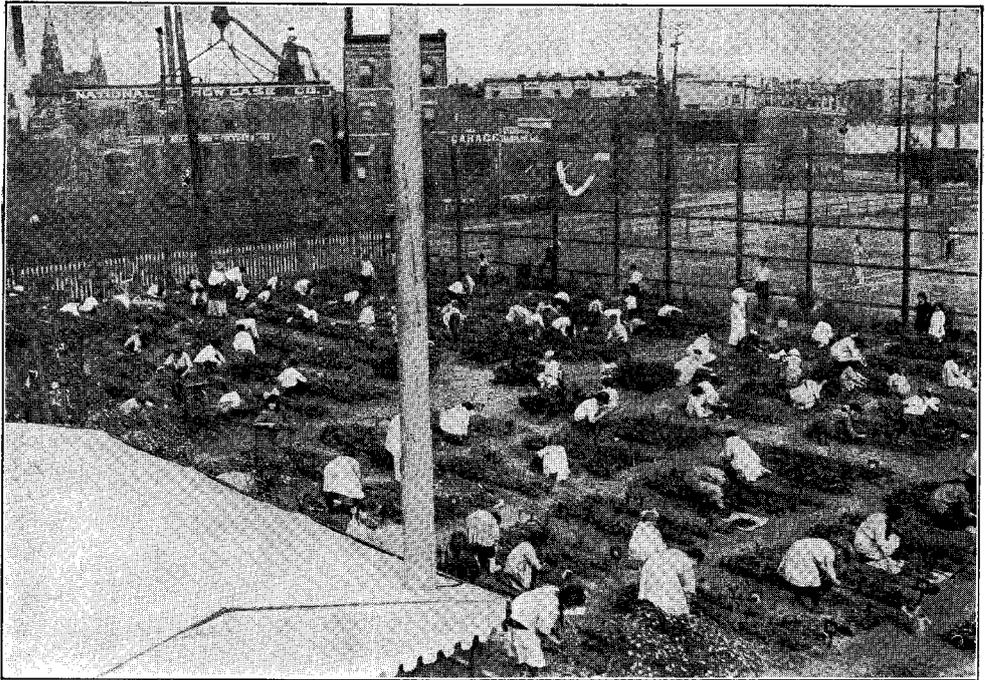
Dancing platform for folk dancing.
 New slide for girls.
 Two new tennis courts.
 Six large swings for boys.
 Rearranged apparatus to make more room for new play.
 Baby swings with awning.
 Ingenuity work.
 Ice skating.

2. McLAUGHLIN PARK PLAYGROUND:

Tennis courts.
 Croquet field.
 Six new baby swings with awning.
 Rearranged apparatus to allow more open play.
 Ingenuity work.

3. MCCARREN PARK PLAYGROUND:

Six new baseball diamonds.
 Four football fields.
 Two soccer fields.
 Six tennis courts.
 Dancing platform.
 New awnings for sand box and baby swings.



PLANTING, FARM GARDEN, MCCARREN PARK



HARVESTING, FARM GARDEN, MCCARREN PARK

Repaired running track.

Children's Farm Garden.

Domestic science and household economy and manual training instructions and ingenuity work.

Ice skating.

4. PROSPECT PARK:

Added seventy-five tennis courts, making a total of three hundred.

New system of assignment whereby forty-eight hundred persons may play in one day of four periods, against twelve hundred formerly. Dancing platform at picnic grounds.

Three-mile cross-country course.

New places for coasting.

Tent for dressing room for High School girls who played field hockey.

5. HIGHLAND PARK:

Twenty-eight tennis courts—same system installed as at Prospect Park.

Three baseball diamonds.

One football field.

Ice skating.

6. MCKIBBIN PLAYGROUND:

Removed nearly half of apparatus to allow more open play.

One tennis court.

One handball court.

Ingenuity work.

7. BUSHWICK PLAYGROUND:

Baseball diamond.

Two tennis courts.

Dancing platform.

Awning over baby swings.

One croquet field.

Replaced cinders with clay.

Ingenuity work.

Ice skating.

8. NEW LOTS PLAYGROUND:

New baby swings.

Dancing platform.

Two tennis courts.

Awning over baby swings.

Ingenuity work.

Croquet field.

New clay surface.

Hours:

During July and August attendants work eight hours per day, and during the remaining months the hours vary. The appropriation does not permit evening activities.

Permits:

(Issued in order of application.)

Baseball.....	1,223
Tennis.....	7,367
Football.....	206
Soccer.....	12
Croquet.....	188
Field Hockey.....	11
Cross-country.....	16
Picnics (Prospect Park), total attendance about.....	65,000

It may be noted here that the largest athletic field in the Department is at the Parade Ground. Here there are twenty-five (25) baseball diamonds, seven (7) cricket fields, eight (8) football fields, a bowling green, and a field house fully equipped with locker rooms and shower baths.

Farm Garden:

The first municipal school farm in Brooklyn was opened at McCarren Park, May 1st 1914. This garden being an experiment only one hundred and twenty (120) plots 8 by 4 feet, with a flower border surrounding it, were laid out, and each plot averaged a yield of two hundred (200) radishes, thirty (30) beets, sixty (60) carrots, two (2) quarts of beans, five (5) bunches of onions, twenty (20) heads of lettuce, and four (4) ears of corn. The plots were farmed twice during the season, and by different sets of children, the first planting being on May 17th, with harvesting on June 23rd, and the second being on July 29th, with harvesting on October 14th. Previous to each planting the children themselves prepared the ground by spading, liming, fertilizing and raking each plot. Each child was held accountable for the proper care of his or her plot, and was taught to weed, cultivate and water it daily. The children were also taught to care for the paths and flower border which helped to beautify the farm, and for the observation beds in which were raised cotton, flax, hemp, peanuts, sugar-beets, egg-plants, broom-corn, maize, kafir, and tobacco.

One of the features of the farm work was the nature lessons given to thousands of children who came in classes to the garden during school hours accompanied by their teachers. Specimens of cotton, peanuts, etc., were also sent to the schools located in the immediate vicinity to supplement the lessons. An illustration of the interest displayed is shown by the figures, between the fifth and ninth days of October when three thousand three hundred and eighty-two (3,382) school children visited the farm for these nature lessons.

Besides gardening and nature study the girls were taught domestic science, mainly cooking, baking and sewing, and the boys were taught basketry and carpentry.

Arrangements are now being completed for doubling the size of the farm garden next Spring, and for the establishment of another garden located in the Brownsville section of the Borough.

Greenhouses:

During the year about thirty thousand (30,000) plants were propagated in the Prospect Park greenhouses for out-of-door planting, and about fifty thousand (50,000) were raised for in-door greenhouse exhibition. The makeup of the greenhouse buildings is as follows:

	Floor space, sq. ft.
2 Cacti houses (27 x 49) and (50 x 20).....	2,323
2 Orchid houses (27 x 75) and (27 x 49).....	3,348
1 House for stove plants (27 x 49).....	1,323
1 Fern house (70 x 27).....	1,890
1 Show house (80 x 48).....	3,840
1 Palm house (100 x 50).....	5,000

	Floor space sq. ft.
3 Small propagating houses (44 x 60).....	2,640
1 Old potting house (48 x 26).....	1,248
1 New potting house (24 x 44).....	1,056
3 Large propagating houses (135 x 66).....	8,910
1 Cold house (120 x 20).....	2,400
2 Large cold frames, century plants (6 x 56) and (6 x 70)...	756
500 Small cold frames (3 x 6).....	9,000
	<hr/>
Total square feet.....	43,734

An extensive addition was made to the greenhouse during the year by repairs and alterations to the propagating house and the building of an addition to the large tropical conservatory. The latter will provide room which is urgently needed for the important collection of cacti, and the new propagating house will enable the Department to greatly increase the growing of plants. As soon as the growing department is properly organized with this new equipment, it should very naturally reduce our purchases of bedding plants and ground-covering vines, as well as improve the flowering plants grown for display purposes in the conservatory.

MUSEUMS OF THE BROOKLYN INSTITUTE OF ARTS AND SCIENCES

The Central Museum on Eastern Parkway, the Children's Museum in Bedford Park, and the Brooklyn Botanic Garden are all under the management of the Brooklyn Institute of Arts and Sciences. They are supported partly by the City and partly by private funds, construction work being done through the Department of Parks, and bills being audited through the same Department.

Central Museum:

The work on sections "F" and "G," which form the new addition to the present north front of the museum building, is covered elsewhere in this report.

To provide for the collection of prints, numbering about three thousand (3,000), space had to be provided for cabinets in the east section, and a gallery for exhibitions, properly decorated and lighted, was constructed out of the passage leading to the Library. The space back of the Auditorium gallery also has been utilized for the display of objects of Chinese art.

The attendance shows a steady increase, two hundred and fifty-five thousand six hundred and sixty-one (255,661) visitors were registered during the year 1914. The Library of the Museum was used by seven thousand five hundred and ninety-four (7,594) persons. The relationship between the Museum and the schools, public and private, has been strengthened and made more attractive by the appointment of a Docent, or guide instructor, to the Museum staff.

The work of the Docent is evident in the increased attendance of classes for instruction in the galleries, and in the larger attendance of school children at the Museum lectures. The figures are herewith added:

Attendance of children for gallery talks.....	6,119
Attendance at Museum lectures.....	22,934

Apart from the permanently installed acquisitions of the Museum, special exhibitions have been made of antique tapestries from various owners, the works of Edwin Howland Blashfield and George Hitchcock, the Wheeler collection of antique watches, and the

unique collection of architectural photographs made by Professor William H. Goodyear, the Curator of Fine Arts in the Museum.

Museum expeditions were sent to the Bahamas, to various parts of this country and through Long Island to collect specimens and material for natural history groups illustrating the flora and fauna of the country.

Among the benefactors to the Department of Fine Arts were Mr. A. Augustus Healy, President of The Brooklyn Institute of Arts and Sciences, who contributed thirteen (13) paintings in oil and water color of Old and Modern Masters, and two (2) original drawings by Old Masters; Colonel Robert B. Woodward, who contributed medals, also two (2) French carved stone figures and a bronze by Algardi; Alfred Duane Pell, additions to the collection of European porcelain; Alfred T. White, three (3) bronzes by Constantin Meunier; Charles W. Gould, one hundred and twenty-one (121) pieces of Tiffany favrile glass; George D. Pratt, two (2) paintings by Modern Masters—one by Burne-Jones, two (2) Mediæval stained glass panels—Princeton tiger and buffalo—bronzes by A. Phimister Proctor, bronze lion and buffalo by Carl D. Akeley; Frederic D. Pratt, early American furniture; Martin Joost, a painting, "Reading of the Will," by Busi; the Estate of Samuel Isham, deceased, "The Lilac Kimono," a painting by Isham; Egypt Exploration Fund, one hundred (100) Egyptian antiquities.

In the Department of Ethnology much valuable and interesting material, collected by the Curator, Mr. Stewart Culin, has been received from Japan, China, Korea and India.

In the Department of Natural Science the accessions include about ninety (90) mammals, five hundred and sixty (560) birds, three thousand five hundred (3,500) insects and other invertebrates, twenty-five (25) reptiles, and batrachians, and two collections of minerals. Other donors of very desirable animals have been Mr. George D. Pratt and Mr. E. LeGrand Beers. Seven (7) deer and other mammals, three hundred (300) birds, and a large collection of West Indian marine invertebrates were obtained through Museum expeditions.

The Museum issued three numbers of its Science Bulletin, relating to research work of its officers or of students who use its collections. Three numbers also of the new "Quarterly," a popular, fully illustrated journal designed to keep the work of the Museum before its friends and patrons, have also been issued.

Thirty scientific papers were published during the year by members of the Museum's staff in technical journals of the United States and Europe.

Children's Museum:

The general attendance at the Children's Museum for 1914 was one hundred and ninety-one thousand seven hundred and seventy (191,770). The number of lectures given was three hundred and sixteen (316) and the attendance at lectures was twenty-eight thousand eight hundred and forty-six (28,846). One thousand and ninety-five (1,095) visits from teachers were recorded and seven hundred and five (705) loans were sent to schools.

In addition to the regular lectures individual help and instruction was given to many teachers and pupils. About thirteen hundred (1,300) visitors used the Wireless Telegraph Station, and about forty thousand (40,000) readers used the Library. Experiments in the determination of minerals by chemical tests made with the blowpipe were successfully carried on in the basement laboratory of the Museum by high school boys.

The pressing need for a new building is emphasized in every department where the work is seriously handicapped for lack of space. The Lecture Room, Library, Wireless Room, Basement Laboratory, and exhibition rooms are crowded to such a degree that the Museum cannot meet the demands of the public.

Botanic Garden:

More than one-third of the expenditures for the Garden during the year come from private funds. During 1914 considerable grading work was done by contract, but the finishing work and top-soiling will require further appropriations. In August an agreement was executed transferring to the Botanic Garden certain unused lands opposite the Willink

Entrance of Prospect Park. This addition completes the triangle from Eastern Parkway to Malbone Street and will result ultimately in a most satisfactory development.

There are already under cultivation in the Garden over four thousand (4,000) different species of plants, the increase during 1914 being more than nine hundred and fifty (950) species. The library contains over three thousand (3,000) volumes and thirty-six hundred (3,600) pamphlets. The herbarium consists of about one hundred and ten thousand (110,000) specimens, the increase for 1914 being eighteen thousand (18,000).

Attendance at the classes and lectures at the Garden totals seven thousand two hundred and fourteen (7,214), most of these classes coming from the various schools. A class was conducted for the preparation of teachers of the children's gardening, and during the year five hundred (500) children's gardens at various homes throughout the borough were visited by the instructor.

During the year a Japanese Garden was constructed on the northwest shore of the lake at a cost of something over ten thousand dollars (\$10,000). This was a gift from the Chairman of the Committee of the Brooklyn Institute of Arts and Sciences, and has become a most attractive feature in the Garden. The Garden is in great need of the completion of its buildings as the present quarters are exceedingly cramped.

Persons desiring fuller information in regard to the Museums or the Botanic Garden are referred to the Year Book of the Brooklyn Institute of Arts and Sciences.

PARKS, PLAYGROUNDS, PARKWAYS AND STREETS UNDER JURISDICTION OF THE
DEPARTMENT OF PARKS, BOROUGH OF BROOKLYN

Park	Location	Area in Acres	Length of Interior Walks in Miles	Appraised Valuation
1 Amersfort Park....	Avenue J, E. 38th St., Avenue I and E. 39th St.....	3.56	0.41	\$64,200
2 Bedford Park.....	Kingston and Brooklyn Aves., Prospect and Park Places....	4.10	0.50	325,000
3 Bensonhurst Park..	Bay Parkway, Gravesend Bay, 21st and Cropsey Aves.....	13.00	0.24	240,000
4 Borough Hall Park.	Joralemon, Court and Fulton Sts.....	1.70	.....	500,000
5 Brooklyn Botanic Garden and Ar- boretum.....	Eastern Parkway, Washington and Flatbush Aves. and Mal- bone St.....	68.90	2.37	3,189,000
6 Brooklyn Heights Parks.....	Columbia Heights, fronting on Furman St.....	.86	.....	131,500
7 Bushwick Park....	Knickerbocker and Irving Aves., Starr and Suydam Sts.....	6.86	0.65	305,000
8 Canarsie Park.....	Skidmore, Sea View and Denton Aves., E. 88th St. and E. 93d St., Byrne Place and Jamaica Bay.....	30.50	0.10	115,000
9 Carroll Park.....	President, Court, Carroll and Smith Sts.....	1.90	0.29	165,000
10 City Park.....	St. Edwards and Navy Sts., Park and Flushing Aves.....	7.50	0.42	491,000

PARKS, PLAYGROUNDS, PARKWAYS AND STREETS UNDER JURISDICTION OF THE
DEPARTMENT OF PARKS, BOROUGH OF BROOKLYN—Continued

Park	Location	Area in Acres	Length of Interior Walks in Miles	Appraised Valuation
11 Coney Island Con- course Lands (ex- clusive of Seaside Park)	West 5th St., Sea Breeze Ave. and Atlantic Ocean.....	59.70	.....	1,132,000
12 Cooper Park.....	Maspeth and Morgan Aves., Sharon and Olive Sts.....	6.10	0.52	140,000
13 Cooper Gore.....	Junction of Metropolitan and Orient Aves.....	.15	.....	7,000
14 Cuyler Gore.....	Cumberland and Fulton Sts. and Greene Ave.....	.08	.....	25,000
15 Dreamland Park...	W. 5th St., W. 8th St., Surf Ave. and Atlantic Ocean.....	14.70	.....	839,500
16 Dyker Beach Park.	7th Ave., Bay 8th St., Cropsey Ave. and 14th Ave. and Gravesend Bay.....	139.80	.....	778,000
17 Fort Greene Park..	DeKalb Ave., Washington Park, Willoughby and St. Edwards Sts. and Myrtle Ave.....	28.90	1.61	3,098,500
18 Fort Hamilton Park	4th Ave., 101st St., Ft. Hamilton Ave. and Shore Road.....	4.60	0.33	150,000
19 Fulton Park.....	Chauncey and Fulton Sts., and Stuyvesant Ave.....	2.00	0.20	135,000
20 Highland Park....	Jamaica Ave., U. S. National Cemetery, Borough Line and Warwick St. Extension.....	42.58	0.98	501. 00
21 Irving Square Park	Hamburg and Knickerbocker Aves., Wierfield and Halsey Sts.....	2.98	0.32	143,000
22 Lincoln Terrace Park	Eastern Parkway, Buffalo and Rochester Aves. and President St.....	7.60	0.61	151,200
23 Linton Park.....	Bradford St., Blake, Dumont and Miller Aves.....	2.29	0.30	81,000
24 McKinley Park....	Ft. Hamilton and 7th Aves. and 73rd Street.....	8.50	.....	201,210
25 Prospect Park.....	Prospect Park West, Flatbush, Ocean, Parkside, Coney Island Aves. and 15th St.....	526.00	14.70	30,757,000
26 Red Hook Park....	Richards, Verona, Dwight and Pioneer Sts.....	5.28	0.69	182,000
27 Saratoga Square...	Saratoga and Howard Aves., Halsey and Macon Sts.....	3.20	0.36	212,000
28 Seaside Park.....	Ocean Parkway, Concourse, W. 5th St. and Sea Breeze Ave....	10.30	0.61	625,000
29 Stuyvesant Gore...	Stuyvesant and Vernon Aves. and Broadway.....	.08	.....	6,000

PARKS, PLAYGROUNDS, PARKWAYS AND STREETS UNDER JURISDICTION OF THE
DEPARTMENT OF PARKS, BOROUGH OF BROOKLYN—*Continued*

Park	Location	Area in Acres	Length of Interior Walks in Miles	Appraised Valuation
30 Sunset Park.....	41st and 44th Sts., 5th and 7th Aves.....	24.50	1.53	841,500
31 Tompkins Park....	Tompkins, Greene, Marcy and Lafayette Aves.....	7.80	0.66	460,000
32 Underhill Gore....	Underhill and Washington Aves. and Pacific Street.....	.10	.....	6,500
33 Vanderveer Park...	East New York and Pitkin Aves. Barret and Grafton Sts.....	.21	0.08	15,000
34 Winthrop Park....	Nassau and Driggs Aves., Rus- sel and Monitor Sts.....	9.10	0.94	505,000
35 Woodpoint Gore...	Bushwick, Metropolitan and Maspeth Aves.....	.05	.....	1,000
36 Unnamed Park....	Eastern Parkway, Washington and Classon Aves.....	1.36	.....	95,200
37 Unnamed Park....	Roebling St., Division and Lee Aves.....	.14	.....	14,500
Totals, Parks.....		1,946.98	29.42	\$46,628,810
Playground				
38 McCarren Park....	Berry, Lorimer, Leonard, Bay- ard and N. 12th Sts., Nassau, Driggs, Manhattan and Union Aves.....	38.42	1.35	1,316,000
39 McLaughlin Park..	Bridge, Tillary and Jay Sts.....	3.30	0.32	367,500
40 Williamsburg Bridge Park.....	Bedford and Kent Aves., S. 5th and S. 6th Sts.....	4.30	0.28	275,000
41 Bushwick Playground	Putnam Ave. between Knicker- bocker and Irving Aves.....	2.80	0.04	68,000
42 McKibbin Play- ground.....	Seigel, White & McKibbin Sts..	1.37	.....	70,000
43 New Lots Play- ground.....	Sackman St., Riverdale, New- port and Christopher Aves...	2.29	0.07	73,000
44 Parade Ground....	Coney Island, Parkside and Ca- ton Aves.....	39.50	0.22	1,500,000
45 Red Hook Play- ground.....	Richards, King, Dwight and Pioneer Sts.....	2.29	.....	52,000
Totals, Playgrounds.....		94.27	2.28	\$3,721,500

PARKS, PLAYGROUNDS, PARKWAYS AND STREETS UNDER JURISDICTION OF THE
DEPARTMENT OF PARKS, BOROUGH OF BROOKLYN—*Continued*

Parkways and Streets	Location	Miles	Area in Acres be- tween Prop- erty Lines	Appraised Valuation
1 Bay Parkway.....	Ocean Parkway between Avenues I and J, to Bensonhurst Beach.....	2.56	30.99	\$1,000,000
2 Bay Ridge Parkway	Ft. Hamilton Ave. between 66th and 67th Sts., to 1st Ave. between 66th St. and Wakeman Place.....	1.40	40.89	717,700
3 Buffalo Avenue....	Eastern Parkway, between Rochester and Ralph Aves., to East New York Ave. between E. 96th and E. 98th Sts.....	.12	1.98	31,000
4 Bushwick Avenue..	Eastern Parkway, between DeSales Place and Stewart St. to Jamaica Ave. between Sheffield and New Jersey Aves....	.42	4.95	82,500
5 Eastern Parkway..	Prospect Park Plaza to Ralph Ave. between Union St. and Lincoln Place.....	2.50	61.12	3,000,000
6 Eastern Parkway Extension.....	Ralph Ave. between Union St. and Lincoln Place to Bushwick Ave., between DeSales Place and Stewart Street.....	1.39	18.55	1,300,000
7 Fort Hamilton Ave.	Ocean Parkway and Prospect Ave. to Fort Hamilton.....	4.27	48.15	1,000,000
8 Highland Boulevard	Bushwick Ave. between Dahlia and Gillen Places to Highland Park.....	.67	9.00	150,000
9 Lincoln Road.....	Ocean Ave. to Bedford Ave., between Lefferts Ave. and Maple St.....	.30	2.61	138,900
10 Ocean Avenue.....	Flatbush Ave. at Malbone St., to Parkside Ave., between St. Paul's Place and Flatbush Ave.	.60	6.77	359,300
11 Ocean Parkway....	Prospect Park Circle to Coney Island Concourse.....	5.50	140.00	4,000,000
12 Parkside Avenue...	Prospect Park Circle to Flatbush Ave. at Robinson St....	.68	8.15	433,800
13 Plaza Street.....	Prospect Park Plaza.....	.38	4.31	229,400
14 Pennsylvania Avenue.....	Jamaica Ave., between Sheffield and New Jersey Aves., to Jamaica Bay.....	2.50	19.24	630,100
15 Rockaway Parkway	Buffalo Ave. at East New York Ave. to Canarsie Beach, between E. 96th and E. 98th Sts.	3.12	40.90	773,000
16 Shore Road.....	First Ave., between 66th St. and Wakeman Place to Fort Hamilton.....	2.65	121.00	5,000,000
Totals, Parkways and Streets.....		29.06	558.61	\$18,845,700

SUMMARY

	Acres	Appraised Valuation
Total Area—Parks.....	1,046.98	\$46,628,810
Total Area—Playgrounds.....	94.27	3,721,500
Total Area—Parkways and Streets.....	558.61	18,845,700
Grand Totals.....	1,699.86	\$69,196,010

DEPARTMENT OF PARKS

BOROUGH OF BROOKLYN

TABLE OF COMPARISON OF POPULATION OF BROOKLYN TO ACREAGE OF PARKS

Year	Popula- tion	Park Area	*Ratio of Park Area to Population	*Proper Park Acreage According to Population
1898.....	1,197,100	1,045.95	1 acre to 1,144 pop.	5,986
1899.....	1,256,175	1,045.95	1 " " 1,201 "	6,281
1900.....	1,266,582	1,045.95	1 " " 1,211 "	6,333
1901.....	1,270,550	1,045.95	1 " " 1,215 "	6,353
1902.....	1,313,095	1,045.95	1 " " 1,255 "	6,565
1903.....	1,359,172	1,055.23	1 " " 1,288 "	6,796
1904.....	1,387,351	1,055.23	1 " " 1,315 "	6,937
1905.....	1,402,729	1,063.73	1 " " 1,318 "	7,014
1906.....	1,426,166	1,063.73	1 " " 1,340 "	7,131
1907.....	1,489,536	1,063.73	1 " " 1,400 "	7,448
1908.....	1,492,970	1,063.73	1 " " 1,403 "	7,465
1909.....	1,539,235	1,063.73	1 " " 1,450 "	7,696
1910.....	1,634,351	1,126.30	1 " " 1,452 "	8,172
1911.....	1,690,000	1,126.30	1 " " 1,501 "	8,450
1912.....	1,749,000	1,141.11	1 " " 1,533 "	8,745
1913.....	1,814,042	1,141.11	1 " " 1,590 "	9,070
1914.....	1,889,534	1,141.25	1 " " 1,656 "	9,448

* The actual average provision for parks and public grounds for American cities is one (1) acre to every two hundred (200) of the population. The last column takes this average of 200 as a standard.

STATISTICAL CHART

PARKS, COMBINED PARKS AND PLAYGROUNDS, AND PLAYGROUNDS
DECEMBER 31, 1914

Total Number.....	45
Total Acreage.....	1,141.25
Acreage per 1,000 Inhabitants.....	0.604
Appraised Total Value.....	\$50,350,310.00
Average Value Per Acre.....	44,118.56
Value Per Inhabitant.....	26.65
Total Mileage of Drives and Bridle Road.....	11.60
Total Mileage of Walks.....	31.70

PARKWAYS (NOT INCLUDING DRIVES IN PARKS)

Total Number.....	16
Total Mileage.....	29.06
Mileage Per 1,000 Inhabitants.....	0.016
Total Acreage.....	558.61
Appraised Total Value.....	\$18,845,700.00
Average Value Per Acre.....	\$33,736.77
Value Per Inhabitant.....	9.97

DEPARTMENT OF PARKS

BOROUGH OF BROOKLYN

TABLE SHOWING FORESTRY WORK PERFORMED DURING YEAR 1914

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Trimmed.....	3,671	1,179	954	1,436	2,424	3,781	4,270	7,265	6,401	5,373	3,323	3,402	43,479
Removed.....	546	153	248	191	204	461	127	208	155	203	218	306	3,020
Sprayed.....	1,275	5	.....	130	1,795	13,844	3,306	3,111	1,960	725	2,730	1,448	30,329
Scraped.....	464	158	19	934	904	4,034	2,673	3,064	3,943	1,906	774	1,150	20,023
Planted.....	.....	.....	.....	1,721	939	3	.....	.....	.....	269	92	6	3,030
Dressed.....	3,869	956	1,145	787	2,268	3,342	2,329	3,957	3,799	4,483	3,414	2,621	32,970
Old Guards.....	66	24	.....	181	.....	186	15	42	.....	.....	8	14	536
Fertilized and cul- tivated.....	138	.....	.....	.....	2,872	8,632	20,932	8,875	10,369	4,479	8,129	19,106	83,532
Cavities.....	143	31	2	41	4	.....	8	7	51	23	50	48	408
Labeled.....	234	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	234
Shrubs Pruned.....	.....	.....	.....	.....	.....	.....	.....	.....	120	3,052	1,950	1,546	6,668
Total number of trees and shrubs receiving attention.....													224,229

DEPARTMENT OF PARKS

BOROUGH OF BROOKLYN

PERMITS ISSUED DURING THE YEAR 1914

Location	Tennis	Base- ball	Foot- ball	Croquet	Picnic	Cricket	Hockey	General	Street Openings	Total
Prospect Park....	6,485	1,033	165	188	528	7	11	....	....	8,417
Highland Park....	595	90	12	....	4	....	....	....	....	701
McCarren Park... 287	100	27	....	....	....	....	....	....	....	414
Sunset Park.....	....	....	....	....	128	....	....	....	....	128
McKinley Park....	....	....	2	....	107	....	....	....	....	109
Other Parks.....	....	....	....	....	29	....	....	....	....	29
Parkways.....	....	....	....	....	....	....	....	....	350	350
General.....	....	....	....	....	....	....	....	300	....	300
Total.....	7,367	1,223	206	188	796	7	11	300	350	10,448

A charge of fifty cents is made for the use of a private tennis locker and twenty-five cents for the use of the general tennis locker for the season.

On street opening corporation permits, no deposit is required. On street opening general permits, a deposit is required, the amount of same depending on the nature of the work.

No deposit is required on other permits in above list.

General permits are issued for sailing miniature yachts, taking moving pictures, cross country runs, etc.

1914 MONTHLY ATTENDANCE—PLAYGROUNDS, RECREATION FIELDS AND FARM GARDENS

Playground	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Bushwick.....	22,000	30,000	36,000	63,000	52,300	48,100	34,200	25,500	26,000	337,600
City.....	....	....	....	17,000	24,844	2,425	2,165	1,600	1,300	49,334
McCarren.....	6,783	51,043	68,757	100,030	91,815	55,203	47,434	51,203	56,032	528,300
McLaughlin.....	10,030	48,800	72,353	82,254	64,900	45,175	50,949	30,000	20,050	424,511
Red Hook.....	6,400	20,500	23,900	30,900	26,800	28,000	25,000	17,000	14,000	192,500
McKibbin.....	8,700	56,410	55,800	76,400	37,900	54,000	51,000	52,000	30,000	432,210
New Lots.....	13,400	18,300	40,000	49,100	50,100	46,700	42,000	38,000	25,000	322,600
Williamsburg Bridge.....	6,900	17,600	24,900	38,400	27,200	25,900	20,500	20,100	17,000	188,400
Sedgwick Street.....	....	....	....	....	....	23,900	....	....	....	23,900
Myrtle Avenue.....	....	....	....	3,300	18,400	9,200	....	....	....	30,900
Gates Avenue.....	....	....	....	....	1,900	3,900	....	....	....	5,800
Recreation Fields										
Prospect Park:										
Parade Ground.....	....	....	....	228,100	168,500	128,600	106,300	118,000	2,600	752,100
Picnic Ground.....	710	13,897	21,665	15,272	2,496	2,144	....	....	....	56,184
Croquet Field.....	....	5,800	6,625	3,600	3,925	2,425	2,165	1,800	900	26,240
Tennis Field.....	....	32,700	25,900	37,500	68,500	11,600	8,600	8,000	....	192,700
Highland Park.....	....	....	....	10,200	12,280	9,205	7,450	6,805	....	45,940
Edison Field.....	....	....	....	800	2,290	300	....	....	....	3,390
Farm Garden.....	....	2,700	2,650	6,400	5,400	4,400	2,200	....	....	23,750

THE CITY OF
DEPARTMENT OF PARKS,
Summary of Expenses for Year ended December 31,

	DIRECT PARK		
	General Expenses	Supervision and General Expenses	Care of Roads, Paths and Driveways
General Administration.....	\$47,840 63		
Automobile Service.....	7,300 23		
Parks and Playgrounds:			
Ammerfort Park.....		\$773 88	\$502.63
Bradford Park.....		1,288.09	1,187.38
Bensonhurst Park.....		682.05	1,311.16
Borough Hall Park.....		235.61	1,734.14
Bushwick Park.....		1,279.27	1,744.95
Bushwick Playground.....		1,072.21	30.76
Canarsie Park.....		791.05	450.37
Carroll Park.....		1,059.58	997.05
City Park.....		1,122.70	1,111.52
Cooper Park.....		1,430.70	816.81
Dreamland Park.....		1,187.80	107.96
Dyker Beach Park.....		785.86	2,815.88
Fort Greene Park.....		1,596.30	4,186.01
Fort Hamilton Park.....		1,011.07	502.37
Fulton Park.....		1,041.25	649.43
Highland Park.....		798.82	2,650.80
Irving Square.....		1,040.14	734.90
Lincoln Terrace Park.....		1,204.37	1,400.82
Linton Park.....		710.09	730.47
McCarren Park.....		2,630.81	1,026.33
McKibben Playground.....		1,034.07	125.64
McKinley Park.....		1,310.81	534.13
McLaughlin Park.....		1,456.22	591.50
New Lots Playground.....		1,362.86	136.29
Parade Grounds.....		1,604.06	316.04
Prospect Park.....		26,546.03	36,910.98
Red Hook Park.....		887.11	1,382.18
Red Hook Playground.....		459.51	227.23
Saratoga Square.....		1,062.25	747.85
Seaside Park.....		3,715.07	2,771.68
Sunset Park.....		1,708.91	2,581.78
Tompkins Park.....		1,142.92	1,523.52
Williamsburg Bridge Park.....		1,134.00	180.64
Winthrop Park.....		1,496.94	1,989.71
Small Parks, Squares, and Triangles.....		625.24	944.52
Parkways:			
Bay Parkway.....		901.25	9,348.94
Bay Ridge Parkway and Shore Road.....		1,727.84	7,645.62
Eastern Parkway.....		2,649.18	14,539.64
Fort Hamilton Avenue.....		1,791.58	11,285.02
Eastern Parkway Extension.....		1,059.81	9,350.69
Ocean Parkway.....		3,542.55	26,463.00
Streets Contiguous to Prospect Park.....		55.11	7,822.88
26th Ward Streets.....		1,767.02	14,959.90
Undistributed.....		21,469.79	
City Streets:			
Care of Trees.....			
Miscellaneous Expenses:			
General Park Equipment.....	18,036.13		
Menagerie.....	22,422.99		
Pumping Station.....	1,039.46		
Greenhouses and Nursery.....			
Stables.....	28,388.80		
Shops (overhead).....	10,799.13		
Operation temporary summer playgrounds.....			
General Expenses—extraordinary.....	9,398.13		
Total.....	\$145,225.50	\$102,251.78	\$177,071.12

NEW YORK

BOROUGH OF BROOKLYN

1914, (A) on Basis of Functions for Each Park.

EXPENSES							
Care of Trees, Shrubs, Flowers and Lawns	Care of Beaches, Lakes and Shore Lines	Operation and Maintenance of Playgrounds and Athletic Fields	Care of General Park Improvements and Properties	Care of Bath House and Comfort Station	Care of Buildings and Other Structures Not Otherwise Classified	Music and Celebrations	Total for Year
.....	.....	.....	.....	.....	.....	.....	\$47,840.63
.....	.....	.....	.....	.....	.....	.....	7,300.23
\$728.95	.....	.....	\$19.49	.....	.....	\$263.26	2,288.21
1,266.83	.....	.....	36.12	1,306.14	.....	.....	5,086.56
440.85	13.00	.....	69.85	.....	47.37	284.68	2,848.96
954.57	.....	.....	75.71	.....	.....	7.97	3,008.00
892.33	.....	.....	591.59	1,567.93	.....	240.58	6,316.65
2.50	81.95	2,925.24	8.53	1,263.23	.....	41.25	5,425.67
505.15	.....	.....	39.56	237.61	.....	23.04	2,046.78
614.07	.....	.....	140.41	1,638.25	.....	66.25	4,515.61
1,563.91	346.42	986.21	336.65	1,868.00	.....	194.75	7,530.16
1,427.48	.....	.....	133.69	1,301.59	.....	253.79	5,364.06
.....	1,797.98	.....	630.31	4,914.62	2,750.93	228.75	11,618.35
27.09	36.75	.....	2,049.19	.....	1,025.98	.....	6,740.75
3,183.49	.....	.....	5,121.43	2,518.05	.....	1,270.07	17,875.35
693.16	2.50	.....	30.09	.....	.....	.....	2,239.19
457.09	.....	.....	51.36	1,025.23	.....	.....	3,224.36
1,403.97	589.23	1,438.05	213.75	.....	164.98	.....	7,259.60
1,071.98	.....	.....	367.45	1,164.93	.....	316.15	4,695.55
1,294.68	.....	.....	368.46	2,222.79	.....	224.55	6,715.67
1,016.15	.....	.....	84.51	.....	660.94	.....	3,202.16
7,991.49	259.07	12,758.97	151.65	2,931.47	.....	400.61	28,150.40
2.19	.....	4,089.03	402.13	1,019.92	.....	.....	6,672.98
1,316.79	111.00	.....	23.58	857.94	.....	2.50	4,156.75
324.06	174.50	3,646.41	559.74	1,428.99	.....	8.65	8,190.07
74.90	.....	2,688.22	48.28	1,126.42	.....	.....	5,436.97
1,063.81	543.63	1,374.13	78.42	.....	4,527.78	.....	9,507.87
67,643.17	3,188.48	3,128.51	5,080.12	20,746.77	29,926.38	10,833.20	204,003.64
901.02	.....	.....	330.77	929.48	.....	461.95	4,892.51
123.15	75.15	3,160.47	92.82	643.80	.....	.....	4,782.13
1,616.83	.....	.....	56.55	1,160.70	.....	333.70	4,977.88
2,560.42	5,020.92	.....	766.19	3,699.95	.....	.....	18,534.23
5,073.10	208.75	.....	780.03	2,913.59	.....	1,627.81	14,893.97
1,399.52	.....	.....	84.13	1,449.08	.....	33.25	5,632.42
46.70	.....	3,520.35	103.23	81.04	.....	6.25	5,072.21
2,470.73	.....	.....	854.24	1,551.33	.....	1,284.77	9,647.72
1,105.82	.....	.....	408.94	.....	.....	58.75	3,143.27
45.19	.....	.....	23.13	.....	.....	.....	10,318.51
1,480.48	.....	.....	322.31	.....	1,936.69	.....	13,112.94
3,363.94	.....	.....	55.92	.....	.....	48.75	20,657.43
50.00	.....	.....	67.95	.....	.....	.....	13,194.55
12,515.14	.....	.....	495.00	.....	2,993.37	21.25	46,030.31
17.50	.....	.....	17.85	.....	.....	.....	10,445.85
78.07	.....	.....	44.73	.....	.....	.....	8,000.79
.....	.....	.....	.....	.....	.....	33.75	16,750.67
1,852.56	.....	.....	.....	.....	.....	1,366.09	24,688.44
49,000.33	.....	.....	.....	.....	.....	.....	49,000.33
.....	.....	.....	7,803.82	.....	.....	.....	25,839.95
.....	.....	.....	.....	.....	.....	.....	22,422.99
.....	.....	.....	.....	.....	.....	.....	1,039.46
32,026.11	.....	.....	.....	.....	.....	.....	32,026.11
.....	.....	.....	.....	.....	.....	.....	28,388.80
.....	.....	.....	.....	.....	5,415.99	.....	16,215.12
.....	.....	2,264.18	.....	.....	.....	269.36	2,533.54
.....	.....	.....	.....	.....	.....	.....	9,398.13
\$211,689.27	\$12,449.33	\$41,979.77	\$29,019.68	\$61,568.65	\$49,450.41	\$20,205.73	\$850,911.44



ASHMEAD PLAYGROUND, FIRST PLAYGROUND ESTABLISHED IN QUEENSBOROUGH

Honorable JOHN PURROY MITCHEL,
Mayor of the City of New York.

Sir:—

Herewith is submitted a report of the Park Department of the Borough of Queens, for the year 1914.

The Park area was increased in the year through the addition of Baiseley's Lake Park, One Mile Pond Park, and a small tract of land formerly the pauper burial ground of Flushing, making a total added area of ninety-one and two-tenths (91.2) acres, and the total acreage to be cared for by the Department one thousand one hundred and forty-eight and eighty-five hundredths (1,148.85) acres.

The work of the Department during the past year has been development, as well as maintenance and operation. The rapid growth of the borough has been such that the city must needs make provision for the care of the increasing population beyond any definite plan as yet adopted for the park system of the borough.

To provide for the public the fullest enjoyment of the parks consistent with the appropriation made for the care of the areas under the jurisdiction of the Department, has been the aim of the administration. The improvements that have been made will be referred to in the short résumé of the work done in the different parks.

In the matter of supplies, there was a reduction in the requests for the ensuing year compared with the amount appropriated for the year 1914. By careful buying and the stoppage of waste, a saving of \$15,000 or more was accomplished.

Through the proper direction of the labor forces, the efficiency of the Department was increased without an increase in the money expended.

Plans were made for the conservation of trees and shrubs that had been without care, and through the use of a small amount of revenue bonds appropriated, these trees were cared for. The saving to the city in a few years will amount to several hundred thousand dollars.

Economies effected through the proper handling of plants and shrubs will mean a saving in the next three years of several thousand dollars. This amount will be shown, not through curtailment of floral exhibitions or of plants grown or beds maintained in the parks, but in the economical utilization of the material at hand.

Plans have been prepared for the construction of a railroad switch and storehouse in Forest Park. When this is done, road oil, road and building materials, coal, broken stone, etc., may be delivered in car load lots, thus effecting a further saving.

Even with the strictest economy and the saving of thousands of dollars, the appropriation for the parks in the borough of Queens should be increased slightly from year to year to provide for the development of the parks by park labor, that the immense investment of the city in park lands may be enjoyed by the people.

Efforts have been made to obtain revenue for the city from sources hitherto neglected. In 1913, the Department turned into the General Fund \$70.23. In 1914, there was turned over to the General Fund \$1,348.50, and there was outstanding, owing the Department, \$1,577.08, making an increase in revenue for the year of \$2,855.35.

The Department plans to impose a charge of \$1.00 for a season golf permit in 1915, and 50 cents for a daily permit; also to charge for lockers according to the number of persons using each locker, instead of a flat rate of five dollars, as in 1914. This decision has the endorsement of the majority of golfers, particularly those anxious to protect the turf and the putting greens.

In the matter of tree planting, the practice has been to set out trees wherever they were asked for and to make no charge. Trees worth from five to eight dollars each have been planted by the Department, at no cost to the property owner or the development company. In some cases, public spirited citizens or corporations have done their own tree planting. The Steinway Company of Astoria has set out 1500 Norway Maples at its own expense and employs a corps of experts to care for the trees.

The Department will, in 1915, charge for its trees at the rate of \$5.00 each. This is sure to prove a source of revenue which will decrease the cost of maintaining the nurseries.

These nurseries were entirely without care until 1914. A small allowance of special revenue bonds, which permitted the transplanting of a part of the trees has saved them. In 1915, the Department plans to establish a municipal nursery on the site of the old Police Training Ground, transplanting as many trees as it has the money to move from Forest Park. The Department hopes in a few years to be able, not only to supply the needs of Queens Borough as to trees, but to aid materially the entire Park Department and to decrease the sum now spent for trees in other boroughs by many thousands of dollars annually. This will require the cooperation of the Board of Estimate and Apportionment and the adoption of a definite policy to be carried out over a period of from four to six years which should be continued if the city is to get the best value for the money it now has invested in trees.

As to the care of trees in city streets, the Department is in receipt of thousands of letters and complaints over the telephone, of trees in need of spraying and trimming. The report of the Forester shows the work that has been done in this direction. It should be increased each year and the trees of the borough, the greatest in variety, in size and in number of any borough of the city, saved from insects and decay.

The need of playgrounds in Queens Borough is an urgent one. This Department, with the aid of the Jamaica Women's Club, established the first playground in Queens Borough, in Ashmead Park, in June, and the second in Forest Park. As far as the Department can go with the money it will receive in 1915, it will expend it in adding to these playgrounds.

There is appended the résumé of the work accomplished and under way in the various parks, together with the reports of the Superintendent, the Engineer, Forester, and Chief Clerk. There is also a special report of the engineer upon Jacob Riis Park and the loss of land through the action of the water.

JOHN E. WEIER,

Commissioner, Borough of Queens.

FOREST PARK.

Forest Park contains 536 acres and is the largest of the parks in Queens. One hundred and ten acres are given over to the golf links. The city has provided a golf house, with lockers and shower baths. Until 1914 lockers were free. This year a charge of five dollars was made for the use of a locker. The revenue collected amounted to \$1,102.50.

An appropriation of \$5,000 was obtained in July from the Board of Estimate and Apportionment for the construction of five new holes on the golf course. The work will be undertaken early in 1915. These holes will require the clearing of twenty-three acres of land. It will release for the purposes of playgrounds almost an equal number of acres along the Ashland Avenue side of the park, in the thickly settled portion of Woodhaven.

When the present administration took charge, there were scattered about in the woods, a menace to persons walking through them, more than 1500 dead chestnut logs, also many other dead trees that were standing. A saw mill was purchased at a cost of less than \$500, and since July, 1914, the Park Department has been furnishing kindling wood to the public schools, receiving from the Board of Education \$13.00 a cord. In the six months of 1914, wood to the value of \$1,557.08 was delivered to the public schools of Brooklyn. This work of cleaning up the woods and turning the debris into a cash asset will continue for several years to come. To cut and deliver this wood costs the Department \$9.28 per cord.

In Forest Park a playground was laid out and equipped with apparatus made by the

MAP



WOODLAND PATH IN FOREST PARK



ANIMAL ENCLOSURE, RICHMOND HILL, FOREST PARK

Department mechanics. This ground is open the year round and in good weather an average of 350 a day visit it.

Two tennis courts which the Department plans to remodel and two baseball diamonds which were finished by the erection of modern backstops, are located in Forest Park. The ball field is a hockey field in season.

Two annual flower shows, one in the spring and one in the fall, are held in the green-houses. The chrysanthemum show held in the fall was attended by more than 21,000 visitors.

The year 1914 has seen the planting of a grove of pines in Forest Park. Twenty-five hundred trees were removed from the nursery and transplanted near the Washington and Myrtle Avenue entrance of the park. The first of the trees was planted by the Honorable John Purroy Mitchel, Mayor of New York City.

A start has been made toward a zoological garden. Five elk, three aoudad and three goats were obtained from the Brooklyn Department of Parks. A promise has been received from the National Government to permit the department to obtain four cow elk from the Yellowstone Park. A corral has been built and the few animals have proven an attraction.

More than sixty per cent of Forest Park is a dense woods without paths, save as made by persons walking through. Much of it is a jungle of wild undergrowth. The woods need thinning and paths should be constructed through them, following the course of the foot paths made by the people themselves. There are cleared spaces which make excellent picnic grounds. Several hundred picnics are held here every year by churches, Sunday schools and societies.

HIGHLAND PARK.

Highland Park contains 59.60 acres. Most of this is developed to what may be termed a park standard. In the year 1914, additional flower beds were laid along its paths and drives. This park, whose boundary line is that of Queens and Brooklyn, is used for the most part by residents of Brooklyn and is in a congested section.

KISSENA PARK.

Kissena Park, with the Police Training Ground, contains 88.12 acres. The improvements in this park in the year 1914 have resulted in its use by thousands of persons. Land has been filled in, some of the swamp lands drained, and the lake enlarged through the dredging of adjacent swamp and the building of a dike about the new part.

A bridge is planned across this lake. It is hoped to construct this in 1915 and also to build several rustic houses and pergolas.

A comfort station that was near a spring, the only water supply in the park, was removed. The spring has been walled in and the purity of this supply assured for all time.

Walks and paths were laid out in 1914 and rustic steps built connecting the lower ground with the hills. The timber for this construction was obtained in Forest Park and cut at the sawmill used there, in connection with the kindling wood plant.

KING PARK.

King Park, Jamaica, contains 11.50 acres. About one-half of this was improved prior to 1914. The work of improvement was stopped by the frost in December, 1914. In the spring, a comfort station will be built and a bandstand erected. Ten thousand dollars was appropriated for these two buildings and plans that called for the use of this money had been made, but they were discarded. The amount of corporate stock was rescinded and new plans were drawn for buildings to cost \$4,000; an additional \$1,000 was spent in improvements in the park, a saving of \$5,000. The year 1915 should see King Park finished and brought up to a park standard. In this park is King Mansion, maintained as a museum by the King Manor Association. It was the home of Senator Rufus King and later, the home of his son, Governor King.

ROCKAWAY PARK.

Rockaway Park is a strip of sand containing 17.87 acres. The City has the privilege of keeping this park clean and policing it. Beyond that, the deed of gift so ties the hands of the Department that not even a shelter tent for the purpose of screening mothers and infants is permitted upon the beach. No benches are allowed. It is a strip of sand upon which the public may sit or walk and look at the ocean. Bathing and other privileges are held by those who deeded it to the city and who thus have been relieved of the expenditure of keeping it clean.

JACOB RIIS PARK

Jacob Riis Park, near Rockaway Point, contains 262.58 acres. It extends for a mile along the ocean and runs back to Jamaica Bay. It is an undeveloped strip of land. A hospital for convalescents, under the Department of Charities, occupies a piece of the strip. The Park Department, in 1914, built jetties to protect the beach and the hospital. These jetties are treated of in the report of the engineer. There are five at present and additional ones should be constructed yearly until the beach is made safe from the ravages of the ocean. The Board of Estimate has the power to withdraw from the park space such parts of this land as may be needed for institutional purposes.

ASTORIA PARK.

Astoria Park, containing 56.25 acres, is north of the Astoria Ferry Landing. It is expected that it will be turned over to the Department within the year 1915. At present, it is in the hands of the Sinking Fund Commission and condemnation proceedings are still pending.

RAINEY PARK.

Rainey Park, along the East River, opposite Blackwells Island, contains 5.09 acres. This park has been developed as nearly as possible with the funds available. Trees have been planted and grading continued. A baseball diamond and playground have been planned for this breathing spot, situated in the most congested section of Long Island City.

LINDEN PARK.

Linden Park, containing 5.09 acres in Corona, has been improved through the construction of walks and making of lawns. The year 1915 should see this park brought up to a park standard. A bandstand and a comfort station are needed.

LEAVITT PARK.

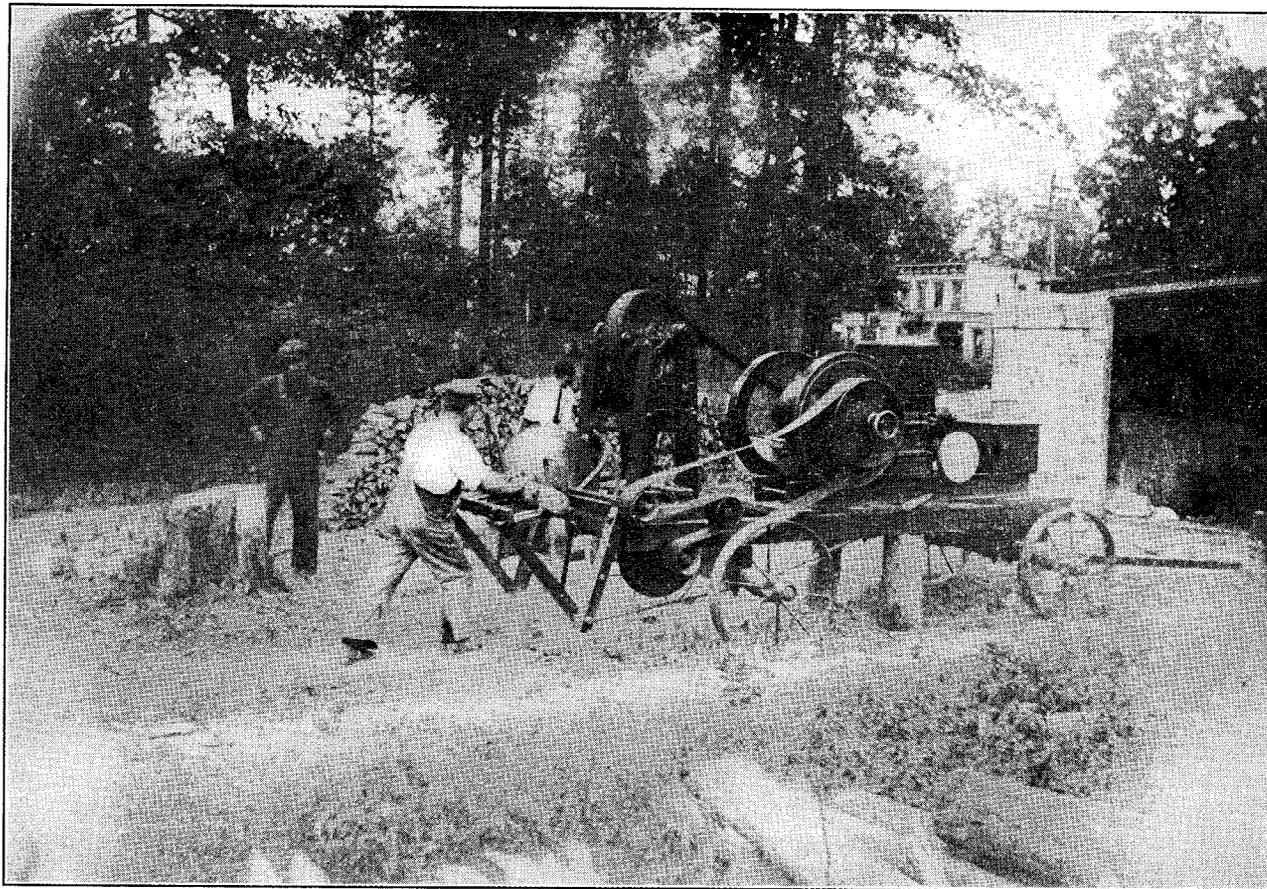
Leavitt Park, for a time known as Flushing Common, at the beginning of the year was a swamp of 7.61 acres, through which ran an open sewer, a menace to health. This sewer has been closed and the work of filling in has continued through the year. A playground and ball field are planned when it is brought up to the level of the grade. Thousands of yards of earth were obtained from the new high school building and thousands of yards of ashes from the pumping station of the Department of Water Supply, Gas and Electricity.

ASHMEAD PARK.

Ashmead Park, in Jamaica, has an area of little more than a quarter of an acre. A playground was established in this park in 1914 and a play leader placed in charge. The equipment was furnished for the most part by the Jamaica Women's Club. A shelter is maintained in a building across the street and the playground is open the whole year.



CHRYSANTHEMUM SHOW, FOREST PARK GREENHOUSES



WOOD CUTTING MACHINE, FOREST PARK

In inclement weather, the children are cared for in the shelter. The playground, at South and Canal Streets, is adjacent to the Merrick Road. This playground has helped to decrease the number of children playing in the street at this point, on the main highway to all points along the South Shore. It has been a "Safety First" proposition and has assisted in decreasing the number of accidents due to the heavy automobile traffic.

UPLAND PARK.

Upland Park, in Jamaica, containing 5.50 acres, has been brought up within reaching distance of a park standard. It needs a comfort station and the few acres of land adjoining it should be purchased by the city. At present the city owns only one-half the lake, where the children sail boats in summer and skate in winter.

BAISELEY'S LAKE PARK.

Baiseley's Lake Park, on the Rockaway Road and Locust Avenue, contains 72 acres. The water area is estimated at 75 per cent of the whole. It is a beautiful sheet of water. It was turned over to the Department by the Sinking Fund Commission, having been a part of the water supply of the old Brooklyn department. It is rich in possibilities as a park property and the development of it was begun in the latter part of 1914.

ONE MILE POND PARK.

One Mile Pond Park contains 16 acres at Central Avenue and the Merrick Road. It is heavily wooded, traversed by a small stream, and was a part of the water supply. It was turned over to the Department of Parks in 1914. Its development should be undertaken within the year, to prepare for the population that will need it when transportation plans for the district have been put into effect.

SMALLER PARKS.

College Point, Flushing, Wayanda and smaller parks and gores are developed as far as need be for the present.

PARKS OF THE BOROUGH OF QUEENS.

	Area in Acres.
Forest Park.....	536.00
Jacob Riis (Seaside) Park.....	262.58
Kissena Lake Park, Flushing.....	88.12
Baiseley's Lake Park, So. Jamaica.....	72.00
Highland Park.....	59.60
Astoria Park.....	56.25
Rockaway Park.....	17.87
Mile Pond Park.....	16.00
King Park, Jamaica.....	11.50
Flushing Common, Leavitt Street.....	7.61
Upland Park, Jamaica.....	5.50
Rainey Park, Long Island City.....	5.09
Linden Park, Corona.....	3.00
Wayanda Park, Queens.....	2.00
College Point Park.....	1.14
Flushing Park.....	1.02
Pauper Burial Ground, Flushing, and street gores.....	3.57

1,148.85

DEPARTMENT OF PARKS, BOROUGH OF QUEENS

REPORT OF THE CHIEF CLERK FOR YEAR 1914

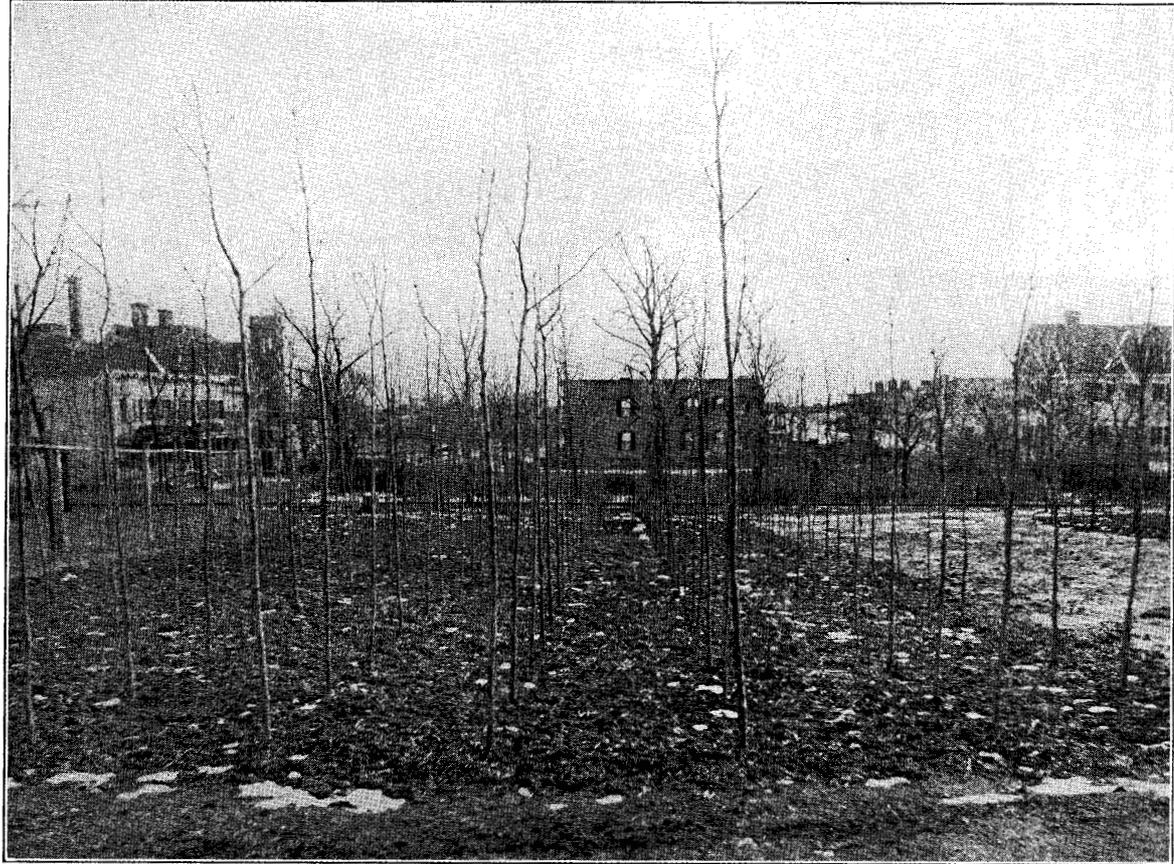
There was appropriated for the Department of Parks in the Borough of Queens for the year 1914 the sum of \$183,120.29. This amount was increased by Special Revenue Bonds for \$10,000, making a total of \$193,120.29.

STATEMENT OF THE CONDITION AS AT THE CLOSE OF BUSINESS DECEMBER 31, 1914, OF ALL APPROPRIATION ACCOUNTS FOR THE CURRENT YEAR, AND OF APPROPRIATION ACCOUNTS FOR PRIOR YEARS HAVING UNEXPENDED BALANCES.

Code No.	Budget 1913	Authorizations and Additions During Year	Expenditures and Liabilities	Unencumbered Balance
1884	Fuel Supplies.....	\$3,000.00	\$2,916.72	\$83.28
<hr/>				
Code No.	Budget 1914			
	<i>Personal Service—Salaries—Regular Employees</i>			
1375	Administration, General.....	\$24,200.00	\$22,659.02	\$1,540.98
1376	Administration, Engineering.....	6,000.00	4,575.00	1,425.00
	<i>Wages, Regular Employees</i>			
1377	Care of Parks and Boulevards.....	33,438.00	31,311.42	2,126.58
1378	Care of Trees in City Streets.....	1,818.00	1,665.00	153.00
1379	Operation of Playgrounds.....	1,565.00	1,228.00	337.00
1380	Care of Bath Houses and Comfort Stations.....	2,190.00	2,140.00	50.00
	<i>Wages, Temporary Employees</i>			
1381	Care of Parks and Boulevards.....	47,150.00	46,427.15	722.85
1382	Care of Trees in City Streets.....	7,232.50	7,181.30	51.20
	<i>Supplies</i>			
1383	Forage and Veterinary Supplies.....	2,094.00	2,091.38	2.62
1384	Fuel Supplies.....	3,144.00	3,138.99	5.01
1385	Office Supplies.....	606.38	594.99	11.39
1386	Botanical and Agricultural Supplies..	4,711.50	4,691.04	20.46
1387	Motor Vehicle Supplies.....	1,099.00	1,093.55	5.45
1388	General Plant Supplies.....	287.82	286.76	1.06
	<i>Purchase of Equipment</i>			
1389	Office Equipment.....	232.83	231.62	1.21
1390	Live Stock.....			
1391	Motorless Vehicles and Equipment...	749.20	749.20	
1392	Motor Vehicles and Equipment.....	6,852.40	6,852.40	
1394	General Plant Equipment.....	3,311.41	3,272.77	38.64
	<i>Materials</i>			
1395	Highway Materials.....	6,411.50	6,304.10	107.40
1396	Building Materials.....	4,052.50	3,996.97	55.53
1397	Motor Vehicle Materials.....	150.00	145.99	4.01
1398	General Plant Materials.....	1,441.80	1,441.94	Cr. .14
	<i>Contract or Open Order Service</i>			
1399	General Repairs.....	4,400.00	4,341.26	58.74



A BIT OF NEGLECTED WOODS IN FOREST PARK



YOUNG STOCK TRANSPLANTED AND CARED FOR

Code No.	Budget, 1914	Authorizations and Additions During Year	Expenditures and Liabilities	Unencumbered Balance
1400	Hire of Horses, etc., Care of Parks and Boulevards.....	9,250.00	9,112.63	137.37
1401	Hire of Horses, etc., Care of Trees in City Streets.....	2,750.00	2,693.75	56.25
1402	Shoeing and Boarding Horses, inc. Veterinary Services.....	655.00	605.25	49.75
1403	Carfare.....	1,000.00	862.80	137.20
1404	Communication.....	953.45	857.08	96.37
	<i>General Plant Service</i>			
1405	Music.....	3,000.00	2,998.00	2.00
1406	Motor Vehicle Repairs.....	1,554.00	1,540.03	13.97
1407	Contingencies.....	30.00	29.93	.07
1408	Fixed Charges and Contributions....	800.00	570.85	229.15
	Departmental Totals.....	\$183,130.29	\$175,690.17	\$7,440.12
	Unencumbered Balance as of Dec. 31.....		\$7,440.12	
	Liabilities.....		1,643.83	
	Turned over to General Fund.....		\$5,796.29	

STATEMENT OF THE CONDITION OF CORPORATE STOCK, ASSESSMENT BOND, SPECIAL REVENUE BOND, AND SPECIAL ACCOUNTS AS OF DECEMBER 31, 1914

Code No.	Corporate Stock	Authorizations and Additions During Yr.	Expenditures and Liabilities	Unencumbered Balance
C.D.P. 201	Additional Greenhouses, Forest Park.....	\$283.48	\$225.00	\$58.48
239	Improvement, Rainey Park....	109.34	108.00	1.34
401	Improvement, King Park....	3,000.00	2,813.25	186.75
401A	Erection of Comfort Station, King Park.....	5,000.00	437.91	4,562.09
402	Improvement, Rainey Park....	18,000.00	17,991.49	8.51
405	Salaries, Engineering Force....	2,400.00	2,343.81	56.19
406	Construction of Jetties, Seaside Park.....	7,166.66	6,945.00	221.66
406A	Engineering Services.....	833.34	.....	833.34
407	Improvement, Forest Park....	26,000.00	397.00	25,603.00
408	Improvement, Kissena Park....	2,000.00	1,290.64	709.36
409	Salaries of Engineers.....	2,000.00	.....	2,000.00
	Total.....	\$66,792.82	\$32,552.10	\$34,240.72
	<i>Special Revenue Bonds</i>			
R.D.P. 305	Wages, Additional Employees, 1914.....	\$10,000.00	\$8,824.48	\$1,175.52

JOHN J. BURKE,
Chief Clerk.

DEPARTMENT OF PARKS, BOROUGH OF QUEENS

REPORT OF FORESTRY BUREAU FOR THE YEAR 1914

<i>Trees on City Streets</i>		<i>Number</i>
Trees trimmed and pruned.....		7,877
“ sprayed for insect pest, fungi, etc.....		7,285
“ cavities filled.....		10
“ removed (dead or dangerous).....		250
“ planted.....		234
“ scraped.....		12
“ lowered.....		2
“ inspections on complaints of Citizens and Civic Associations.....		2,451
“ inspected for approval of applications of Public Service Corporations, work done on approval and supervised.....		550

<i>Trees in Parks</i>		
Trees trimmed and pruned.....		2,589
“ sprayed.....		191
“ removed (dead or dangerous).....		2,437
“ planted.....		3,160

<i>Trees in Nurseries</i>		<i>Number</i>
Trees cultivated and cared for.....		43,000
“ pruned.....		17,160
“ transplanted.....		4,125
“ lifted and heeled in.....		2,500
“ heeled in.....		3,100
“ roots pruned.....		457

<i>Materials Used in the Care of Trees</i>		
Arsenate of Lead.....		8,000 lbs.
Kerosene Oil.....		180 gals.
Whale Oil Soap.....		150 lbs.
Coal Tar.....		3 bbls.

<i>Miscellaneous Work</i>		
Clearing underbrush, Baiseley's Pond.....	12 men	8 days
Removing snow on parks and parkways.....	16 men	12 days
Hauling wood to, and cutting at sawmill, for sale to public schools.		

JAMES F. BURNS.

DEPARTMENT OF PARKS, BOROUGH OF QUEENS

REPORT OF SUPERINTENDENT FOR YEAR 1914

NEW YORK, December 31, 1914.

The Park system of the Borough of Queens is distributed over such a large area and such small sums have been allowed, that many hoped-for improvements are rendered an impossibility.

The Park Rules promulgated are of the best possible character where there is a sufficient Park force, as in Manhattan, Brooklyn, and The Bronx, to enforce them, and it is not generally understood that in this Borough we are confronted with a disorderly element which is most difficult to control.

The Rules forbid "breaking or injuring trees, shrubs and plants, breaking lamps, benches and other property"; forbid use "of insulting or abusive language"; forbid "fish-



VIEW OF KISSENA LAKE, KISSENA LAKE PARK, FLUSHING



NEGLECTED NURSERY MAPLES AND SYCAMORES, FOREST PARK

ing in the ponds and lakes," and "all such shall be removed by the Park Keepers or police in charge."

Many other rules of equal importance are issued for observance, yet cannot be enforced by reason of lack of police protection. An immediate force should be provided for by proper appropriation, both for the protection of property and the safe enjoyment of the parks by the public. In our parks, this lack of protection results in almost daily destruction of trees, plants and flowers and especially of benches and lamps which are placed for public convenience.

The operation of the park system and maintenance of parks covering an area of more than 1,000 acres is now controlled by a force as follows:

Mechanics and helpers, including Foreman of Mechanics.....	8
Gardeners, one Head Gardener.....	16
Laborers.....	52
Drivers, Hostlers, etc.....	6
Foremen.....	3

Of the Labor force, seven are employed by detail as watchmen at night and five to maintain golf links. In addition, five are detailed to the Foreman of Mechanics and four to Greenhouse work, which leaves only thirty-one laborers for general work in all parks of the Borough.

The parks are twenty-three in number, including gores. No parks present better opportunity for development or have greater natural beauty and it is strongly recommended that a sufficient force be provided by increased appropriations, to enable us to make permanent assignments and avoid the continual shifting of labor force from one park to another, without bringing any to a satisfactory condition.

In addition to this, there should be a strong force whose time could be devoted exclusively to the construction of paths for pedestrians and keeping the drives in a perfect condition of repair.

Owing to small appropriations, the lawns cannot be kept in a satisfactory condition.

Playgrounds should be established, in addition to those now in use.

A golf course of eighteen links has been established in Forest Park, the possibilities of which are conceded to be the best in the country. A considerable outlay for fertilizers is required both for the fair greens and putting greens.

In this park there is provided a commodious golf house, which is equipped with about 400 lockers, lavatories, etc., with accommodations for women and men. It is in a most satisfactory condition.

It is proposed to construct additional links, to enable the department to turn links 1, 2, 3, 4 and 5 into a suitable playground and also place tennis courts on same. A proper comfort station and locker house should be part of the equipment of this large playground.

A ball ground in Forest Park, with two diamonds, has been provided on a field which can readily be enlarged by increased fill and, in view of the demand, should be done as soon as the proper appropriations can be secured. I have recommended that this field be flooded in winter for skating purposes, which, I understand, has received your approval.

The acquisition of Baisley's Pond and One Mile Pond will require much additional labor to make them creditable parks. Baisley's Pond is well adapted for skating, which will require an increased number of keepers to maintain the ice in proper condition and to preserve order and avoid accidents. The erection of a skate house and comfort station will be required.

King Park is in need of a bandstand and locker building for tennis players. The comfort station should be remodelled and, if possible, a new building constructed. The park contains eleven acres and, like all others, needs fertilizing with well rotted manure.

Highland Park is the best developed in our system. It is greatly in need of fertilizer for lawns. The flower beds in this park are the most elaborate in our system, mainly owing

to the energy of the gardener in charge. The park needs at least double its assignment of help to maintain it in the best park condition. When under the Brooklyn system, more than twice the present force was employed there.

Kissena Park has great natural beauty and is capable of the finest artistic development. It has a fine lake, utilized for skating in winter. The lake should be provided with boats and a boathouse, which latter, during the winter season, could be used as a skate house.

The park also contains a fine nursery, which is cared for as well as limited labor permits. At least ten men could, with great satisfaction and the best and most profitable results, be employed continually in this park.

Long Island City Gores. The sidewalks should be renewed with concrete blocks, the present flagging not being in the most desirable condition.

Upland Park is kept in most creditable condition with one laborer. The lawns are in need of fertilizing. During the skating season, the lake is visited by an immense number of people and at this time the services of three men are required.

The greenhouses in Forest Park supply all flowers and plants cultivated for the smaller parks, with a force of fifteen gardeners, which includes four in charge of King, Kissena and Highland.

The greenhouses are in as good condition as age will permit and, in addition to having an appropriation for thorough repair, a large show house should be constructed. About 100,000 plants are raised in these greenhouses for other Borough parks.

In addition to the work of propagating, many hardy shrubs are moved by the gardeners to the several parks.

The following parks are yet in the hands of Engineers and are incomplete. They will require additional force as soon as they are turned over to the Superintendent for maintenance.

Seaside (Rockaway).....	262.58 Acres
Flushing Common.....	7.6 "
Rainey.....	5.09 "
Astoria.....	56.25 "
Baisley's Pond.....	72.00 "
One Mile Pond.....	16.00 "

Rockaway Boardwalk has been well maintained during the past summer and has received favorable notice from the Citizens' Association. The walk has been considerably damaged by the last storm and should receive immediate attention, with special appropriation, which is necessary for the reason that there is an absolutely insufficient force of department mechanics to perform this unexpected work to repair damage.

Respectfully,

DAVID E. AUSTEN,
Superintendent.

SPECIAL REPORT OF ACTING CHIEF ENGINEER ON JETTIES AT JACOB RIIS PARK.

December 24, 1914.

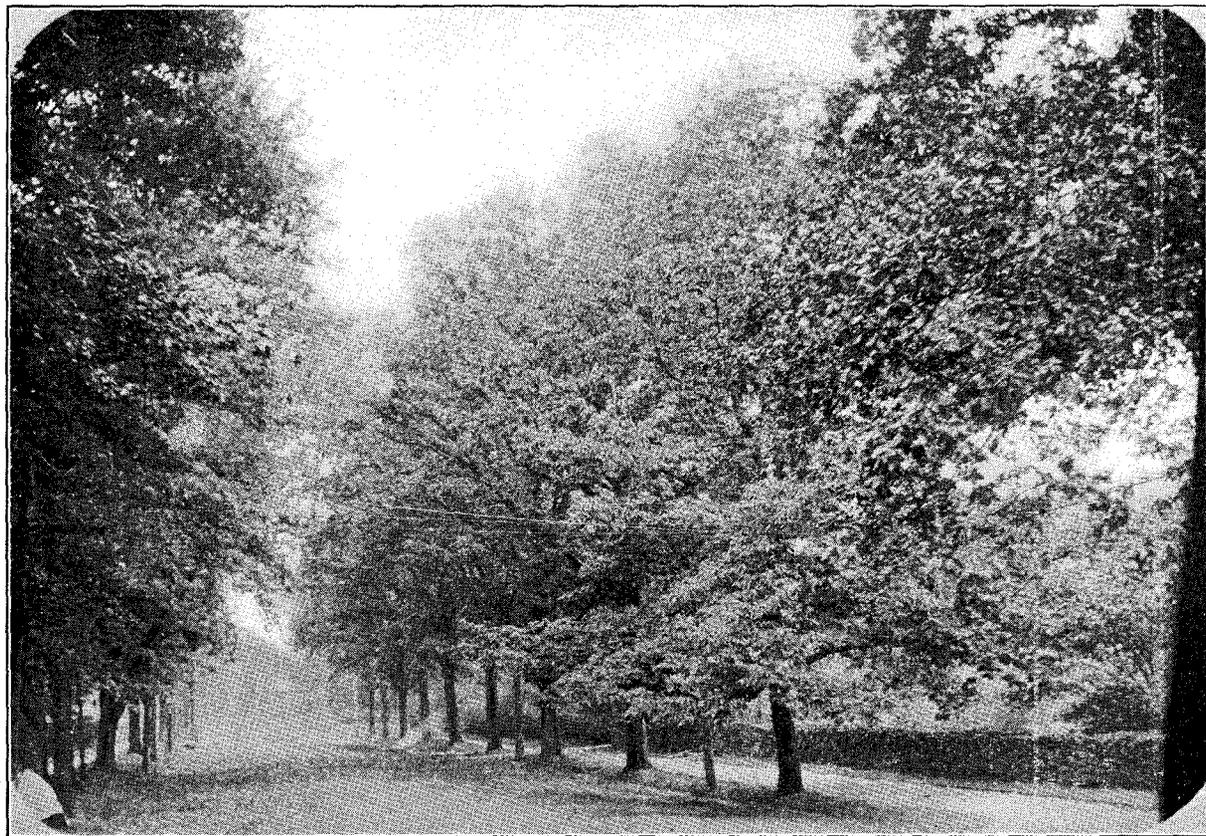
Honorable JOHN E. WEIER,
Commissioner.

Dear Sir:—

I am handing you herewith two maps, No. 1 showing the park area known as Jacob Riis, formerly Seaside Park, at Rockaway, and No. 2, showing a general outline of the Long Island ocean frontage within the City boundaries, on which is plotted the property under the jurisdiction of this department, namely, Jacob Riis Park, with a shore frontage of 4,933 feet, and Rockaway Park, with a shore frontage of 4,261 feet, together with other data necessary in the analysis of the conditions governing the protection of this beach front against its washing away.



SUGAR MAPLE TREES OF FLUSHING HANDLED BY THE PARK DEPARTMENT



CHESTNUT OAK TREES IN FLUSHING CARED FOR BY DEPARTMENT

A study of the shifting high water lines, as plotted on Map No. 1, reveals the startling fact that since the acquisition of this property by the City in March, 1912, for the sum of \$1,316,457.33, the beach has washed back a considerable distance, reducing the park area by approximately 25.2 acres. Figuring the original cost of the 250 acres acquired at \$5,266 per acre, this washing away would represent a loss to the City of \$132,700. This, of course, is assuming that all of the land acquired is of equal value. However, a study of Map No. 1 will show that the portion of the park between Washington Avenue and the ocean frontage is by far more valuable than that low, swampy portion to the north of Washington Avenue, bordering Jamaica Bay. If the land were apportioned off in lots, that near the beach would naturally command a much higher price and for park purposes is at least twice as valuable as the shore front at Jamaica Bay. The more valuable portion of the park, namely, that between Washington Avenue and the beach, at the time of its acquisition by the City, consisted of an area of 68 acres, from which must be deducted the 25.2 acres that have been washed away since that time, a total loss of 37%. If we reduce this to dollars and cents, as we may reasonably do, it will bring the total loss close to a quarter of a million dollars.

At first glance, it might seem that the wearing away of the beach is simply a natural process and that the lost ground may possibly be washed back again by a more favorable series of circumstances. In the past, the washing away during the winter-time and the building up during the summer has kept the entire beach front on a fairly permanent line. However, since the acquisition of Seaside Park and the development of the residential area to the eastward, a somewhat extended system of beach protection, consisting of jetties, sand baffles and the like, has been erected by the private owners for the better protection of the frontage bordering the property. The most substantial of these structures begins immediately at the park boundary, on the frontage controlled by the Neponset Realty Company, and are indicated on Drawing No. 2, between the points "C" and "D." Here, at the present time, is located a series of fifteen timber jetties, starting at a high retaining wall and extending an average distance of about 200 feet into the ocean. To the eastward of this, between the points "D" and "E", are located about 20 sand baffles and rows of hedge, embedded in the beach, for the purpose of catching and holding the drifting sand.

It will be seen that this condition to the eastward of the park property is highly derogatory to the permanence of the present unprotected beach front of Seaside Park. The general direction of the drift currents along shore is from east to west, which is the cause of the formation of the long spit of sand upon which Seaside Park is located. A study of the topography of this region will show that this process of drifting and washing along is always in active operation.

Since the construction of the jetties and baffles before mentioned, the drift from east to west along the shore line has been largely taken up by these obstructions and to a large extent, nothing but a wash of water occurs between "B" and "C" on the Seaside Park front, taking away its quota of sand and depositing nothing in return, the beach being washed further along, far out toward the point "A", the sand spit. The result has been a gradual washing back of the Seaside Park portion of the beach, as indicated by a comparison of the shore line surveyed at the time of condemnation and an average shore line recently determined from a number of surveys made by the Engineers of this department.

From the foregoing, it will be seen that unless some radical and effective means are at once employed to protect the entire beach front, the washing away process will continue, greatly to the further loss of the City.

As you have already asked for an appropriation designed to cover this work, I am simply handing you this additional information, the result of my study of the conditions on the beach, in order to acquaint you more fully with the facts. A similar state of affairs exists on the Rockaway Park beach, although here the wearing away is not so apparent, as the loss of sand is in a large measure stopped when it reaches the point "E".

In the recent storms, during the early part of December, considerable loss occurred at

this point, the wearing away being so great as to undermine the foundations at the western end of the present boardwalk. I would also point out the necessity of a series of low timber groynes, to be constructed on the Rockaway Beach frontage, extending from the present boardwalk to a point about midway between high and low water, these groynes to be very low and at no place more than two feet above the normal beach level.

When this work has been carried out, the entire Rockaway Beach frontage from the point "B" to the City line "G", will be more or less protected. The private owners who still have the inadequate high groynes or ineffective low sand baffles, will be compelled to swing into line and do their share toward holding back the sea, under penalty of having their property washed away if they fail to do so.

I have extended the map No. 2 to show the relative positions of the Coney Island frontage and the Rockaway frontage, from which it will be seen that in bad storms the Rockaway Beach front is exposed to the full force of wind and sea. In easterly and south-easterly storms, the Rockaway Beach front offers a measure of protection to that of Coney Island, when it alone is exposed to the complete effect of wind and weather.

It is needless to say that this condition should have been recognized some years ago and necessary steps then taken to prevent the occurrence of this serious loss of valuable park property to the City. In fact, no notice whatever seems to have been taken of it and until the erection of the Sea Beach Hospital, no question arose as to its necessity. We have, as you know, carried out the plan of protecting the beach in front of the hospital with the funds made available for this purpose.

Up to the time of your taking charge of this department, the condition of gradual wearing away of valuable park property has been going on, largely through the lack of knowledge and foresight of those in charge. Now, however, I should like to emphasize the fact that if this condition continues, it will simply be because of the lack of the necessary funds for carrying out the work that you propose.

Since the completion of the work of the timber jetties in front of the Sea Beach Hospital, we have noted a very satisfactory building up of the sand and feel certain that the type of construction there employed, as well as the spacing and orientation, is correct.

Respectfully yours,

FELIX REISENBERG,

Assist. Superintendent and Acting Chief Engineer.