

# DOCUMENTS

OF THE

## BOARD OF COMMISSIONERS

OF THE

### Department of Public Parks,

FOR THE

YEAR ENDING APRIL 30th, 1875.



1/15/75 - 4/30/75

NEW YORK:

EVENING POST STEAM PRESSES, 41 NASSAU ST., COR. LIBERTY.

1875.

DEPARTMENT OF PUBLIC PARKS,  
OFFICE OF DESIGN AND SUPERINTENDENCE, }  
NEW YORK, 15th January, 1875.

To the Hon. HENRY G. STEBBINS,

*President of the Board :*

Sir,—I have the honor to present a map of the Riverside territory belonging to the city, with the main outlines of a plan for its improvement.

What I have designated as the Riverside *territory* consists of two divisions : first, a strip uniformly 100 feet wide along its eastern side, named Riverside Avenue, and originally intended to be treated as other avenues of the city; second, a body of land of variable breadth named Riverside Park.

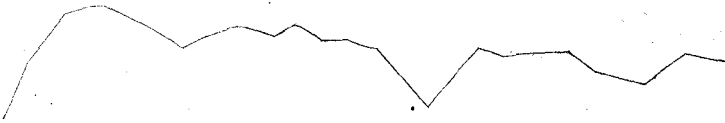
Nearly all of the ground on both of these parts of the territory slopes with a rapid inclination to the west, so much so that the originally proposed avenue would require to be supported

on the lower side by a strong retaining wall, generally not less than twenty feet in height.

The avenue (as laid out in 1868) has a very crooked course, as is shown by the following line, representing a part of it equal in length to that part of Broadway south of Canal street.



Its variations of grade are also frequent, a change between ascent and descent occurring thirteen times, as represented by the following line (200 feet vertical; 4,000, horizontal, to one inch).



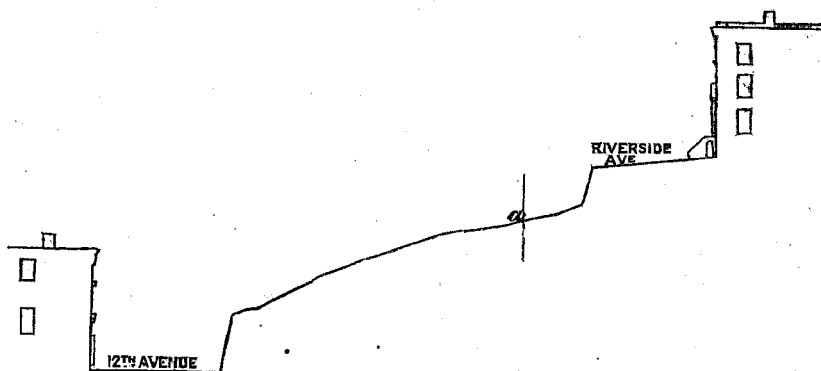
Many of the grades are severe, there being nine sharper than one in twenty, and on which trotting would be impracticable.

On each side of this avenue there is to be, at an average distance of less than two hundred yards, another avenue, straight in course, of better grades and equally wide. These others would amply provide for through and heavy travel, and the breadth of 100 feet on Riverside Avenue, as originally designed, is therefore only required on the presumption that it will be used for the same purpose as the Park—that is to say, as a pleasure resort.

The advantage of the Riverside territory for this purpose

lies in its command of views over the Hudson, which at several points are of great interest, and in its airiness.

This advantage is least, and will eventually be wholly lost, on its lower or westerly side, and is greatest, and will alone be of permanent value to the city, on its higher parts—that is to say: 1st, that part originally assigned to the avenue, and 2d, that part originally assigned to the park which, if the avenue should be built, would be close under its supporting wall (a, in the diagram).



This part of the park, inclined as it would be to the west, with a wall of masonry on the east, would, when it might otherwise be most agreeable, be found insupportably hot, unless planted with large trees.

Trees upon it would, however, completely intercept the view over it from the avenue as originally planned.

This view being cut off, the avenue, with its steep grades and frequent undulations, would be the least attractive of all the avenues of the city for pleasure driving.

For this reason the Department was advised, in 1873, that the

imaginary line by which the site for the avenue was divided from the site for the park should be disregarded, and a plan prepared, with a view to utilize, in the greatest degree practicable, the advantages offered by the territory, *as a whole*, for the several purposes—first, of a means of access to the property on its east side ; second, of a pleasure drive, commanding a fine view over the river, airy and shaded ; third, of a foot promenade, commanding the same view, and also airy and shaded.

This proposition, after full consideration, received the unanimous approval of the Park Commissioners ; it has since, also after cautious consideration, received that of all their successors ; of the Commissioner of Public Works ; of all citizens interested, who have accepted the invitation of the Commissioners to examine the matter ; of the Legislature of 1873, which passed a bill based upon it ; and of the Senate Committee on Cities, of 1874, which recommended a bill intended to provide for it, which failed to pass solely because of a question which arose under it as to the division of duties between the Departments of Parks and of Public Works.

The plan of which an outline is given in the accompanying map is prepared in accordance with the proposition which has been stated ; that is to say, it is a plan for a combination of the avenue with the park. Comparing such a plan with one for a separate improvement of the two parts of the territory as originally intended, the general aim being as nearly as possible the same in both cases, the advantages which would be had under the combination plan, may be partly and moderately stated as follows :

1st. It would be less costly.

2d. The carriage way would, at all the more important points, command the view over the river, and would generally command better views ; would be better shaded ; would be breezier and cooler ; would conveniently accommodate a much larger number of carriages, and would have much better grades. (See appended note, p. 9.)

3d. The accommodation for people on foot would be ampler ; would have better views ; would be better shaded ; would have better grades, and would be more cheaply and efficiently policed.

In short the cost of the property under the new plan will be less than under the old, while its value to the city will be immeasurably greater.

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There is a part of the Riverside territory to which the above observations do not apply, the park as originally arranged under the act of 1867, not being continuous from the north to the south end, but the whole breadth from Eighty-fifth to Eighty-eighth streets being assigned to the avenue, the west line of which was made to coincide with the east line of Twelfth avenue, but with a difference of elevation of 65 feet.

A plan for dealing with this district has been prepared, under instructions from the Department of Public Works, by Mr. Leopold Eidlitz, drawings of which, by favor of the designer, I am permitted herewith to present. It is proposed by this plan that instead of filling up with earth the great space over which the avenue would need to be constructed, it should be utilized as a building suitable for a market or other public purpose, the

walls of which would thus have at this point the character of a terrace, commanding fine views of the river.

It is not necessary that this plan should be carried out at present, but it has been thought best in designing the adjoining ground to keep it in view, and the dotted lines on the map imperfectly show how by means of it, the two parts of the general walk and drive system which has been described would be connected.

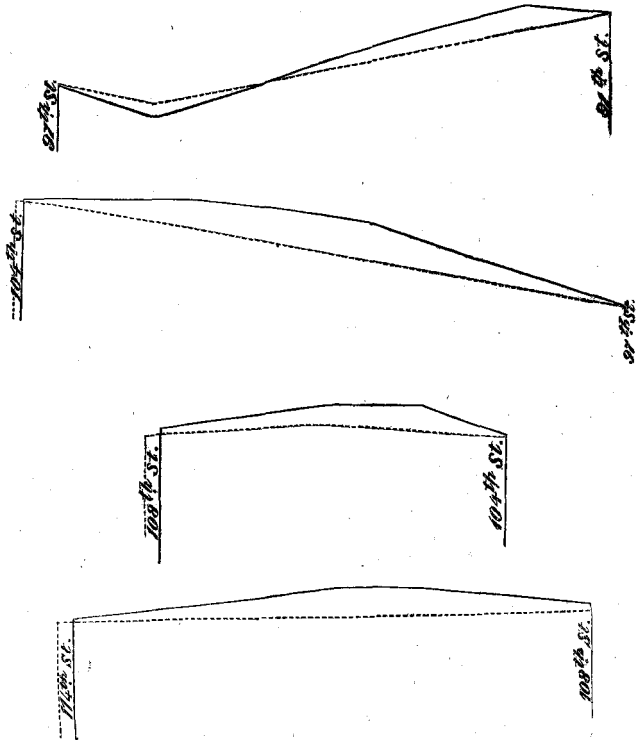
Respectfully,

FRED. LAW OLMSTED,

*Landscape Architect.*

## NOTE AS TO GRADES.

On the Central Park it is found that the majority of horses are walked wherever the grade of the drives is steeper than 1 in 26. On the new Riverside plan, from Seventy-second to One hundred and twenty-seventh Streets (3 miles), there is no grade steeper than 1 in 28. More than an eighth part of that distance, on the old plan of the avenue, is on grades steeper than 1 in 20. On the descent from One hundred and twenty-seventh Street to Twelfth Avenue, the new plan offers a road with a grade of 1 in 20; the only road in the old is steeper than 1 in 10. By the the following diagrams the differences of grade between the points indicated will be evident, the full line showing the old, the dotted line, the new grades.





**DOCUMENT No. 58.**

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BOARD

OF THE

Department of Public Parks.

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MAY 20, 1874.

Report of the Landscape Architect upon the subject of applications for appropriations of ground in the Central Park for special purposes, and recommending the adoption of certain resolutions by the Board.

Adopted and ordered to be printed as a document of the Board.

WM. IRWIN,  
*Secretary D. P. P.*

CITY OF NEW YORK,  
DEPARTMENT OF PUBLIC PARKS,  
OFFICE OF DESIGN AND SUPERINTENDENCE. }

14th May, 1874.

To the

HON. HENRY G. STEBBINS,

*President of the Board:*

SIR,—The last two applications made to the Board, and referred to me to report upon, for the use of ground on the Central Park, are as follows: One for the practice of archery by a club of young ladies; another for instruction in natural science by telescopes and microscopes. A third has since been received, and is yet not acted upon, for use of ground for quaiting.

Each of these propositions is in effect a repetition of many which have preceded it in past years, and is in contravention of the established policy of the city in respect to the Park, which should be in no degree departed from without mature consideration, and the adoption of general rules applicable to all similar propositions. There have been three instances in which this policy appears to have been overruled, viz., in the photographic booth of Mr. Rockwood, in the camera obscura of Mr. Raphael, and in the custom of adults playing croquet on the East Green. Each of these inconsistencies is, in my judgment, unfortunate, yielding little advantage to the general public, adding to the difficulties of maintenance, and presenting a standing suggestion for innumerable encroachments on the Park. If every exhibition which had "a tendency to reveal the truths of natural science," and every form of recreation which had a "healthful and graceful character" were to be admitted on the Park, it is certain that in a few years but little would be left of the Park proper. The perplexity in which the Board is now placed in dealing with the question of the Zoological collection, is an illustration of the danger of a lax management in this respect.

The question of rules expedient to be adopted in regard to the use of the Central Park for plays and games was much considered for a period of nine years before the established policy was fixed, nor was it finally settled upon until after several of the Park Commissioners had had an opportunity of observing the working of customs prevailing on several parks in Europe and some experience had been obtained at home. The first public declaration of the conclusions finally reached was made in the Tenth Annual Report, from which an extract is appended below.

It was decided that the city should undertake to provide ground, as far as practicable, for the playing of the school children of the city on the Central Park, and for school children only, and this conclusion has since been maintained.

Out of the 860 acres included in the bounds of the Park, not more than sixty acres, or less than a fourteenth of all, consists of turf spaces of more than one acre in extent clear of rocks and trees. It is certain that these will soon be insufficient for the number of school children who will ask for play-room upon them, and indeed the spaces allotted to the boys in the south park are already found inadequate.

That the spaces of turf are not larger is no fault of the Commissioners responsible for the plan of the Park, as may be inferred from the fact that in the adopted design they were proposed to be much larger than in any one other of the thirty-two offered in competition with it, and that in actual construction, by generous expenditure for the purpose, more turf has been gained than was originally proposed.

As applications of the same class as those now under consideration are of increasing frequency, I respectfully suggest that the Board consider whether it may not be best to refuse permission for a continuance of the photographic establishment, the camera obscura and of croquet playing for adults, and the adoption of resolutions of the following character :

*Resolved*, That the Department will not give, set apart or rent any ground in the Central Park to be used by adults for any games or plays, and that children to whom permits are issued shall be allowed to use the grounds set apart for them only when this may be done, in the judgment of the Superin-

tendent, without injury to the turf, and under suitable restrictions and police control.

*Resolved*, That the Board will not give permission for any exhibition, show or entertainment on the Central Park for the admission to which a fee, charge or gratuity of money is to be collected.

*Resolved*, That the President is requested to inform all applicants who may desire an appropriation of the ground in the Central Park for games for adults, or for exhibitions, of the rules adopted in the passage of the above resolutions.

With respect to the application for the provision of ground for the exhibition of a telescope and microscopes on the small parks, the same objections do not apply as to that for the use of ground in the Central Park ; but it is obvious that no such exhibition can be had on the walks of any of the small parks without causing an obstruction to passage, and if it is considered desirable that entertainments by which money is to be made should be had upon them, it would seem to be better that ground should be prepared expressly for the purpose, clear of all lines of thoroughfare, and that a rent, however trifling, should, in each case, be exacted for its use ; otherwise the demands upon the Board for similar privileges will be unlimited in number, and the refusal of any will be regarded as an evidence of unjust favoritism toward those preferred.

Respectfully,

FRED. LAW OLMSTED,  
Landscape Architect.

[*Extract from the 10th Annual Report, pp. 34 to 40.*]

“On the whole, it may be said that up to this time the influence of the Park on the amusement of skating has been beneficial, for it has directly encouraged habits of active winter exercise in both old and young, and, indirectly, has stimulated invention and assisted in the development of a new branch of home manufacture. It has, moreover, by degrees, taught many of its former visitors to be almost entirely independent of it, and has induced them to undertake and carry to a successful issue, by private subscription, schemes that would otherwise never have been thought of as possible or desirable.

It is not to be inferred from the great success that has attended the skating-ponds, that similar general use of the play-grounds of the Park would be equally advantageous. It may seem but a very simple matter to throw open the grounds for use; but it is to be remembered that while ice is a substance which, when worn and cut out by the skaters, renews itself, and its surface can be refitted for use by inexpensive machinery, the tender verdure that constitutes the turf, when worn, is not readily restored to a condition that renders its appearance agreeable. Further than this, all the spaces of the Park that are available for play-grounds are limited in extent, and any use of them as play-grounds should be subordinate to the principal idea of the design, which is to provide an agreeable recreating ground for the whole community.

If a considerable number of people of the city were impressed with the importance of out-of-door exercise for themselves and their children to a degree that would lead them to provide the opportunities for it at their own cost and charges, the necessity for the park play-grounds would be largely diminished; but the taste for these out-of-door sports is but very limited, and it has been deemed proper so to regulate the use of this portion of the park as to stimulate and develop a taste for them.

With this object in view, opportunities for the use of the play-grounds have been extended to the school-boys of the city, who will be likely in after-life to keep up the habits they have formed at the Park, and become members of organizations whose accommodations are provided from their own means.

The use of play-grounds of the Park for exercise and the extent to which the lawns will admit of that use, has been the subject of further observations and attention.

In a communication heretofore made to the Board of Education of the city, suggestions were submitted by the Commissioners of the Park looking to such an extent of the use of the lawns as was admissible by the children of the public schools.

It was deemed impracticable to satisfy the requirements of the numerous cricket, ball, and other adult clubs within the area of the Park, and at the same time preserve in the grounds an appearance that would be satisfactory to the much more numerous class that frequent the Park for the enjoyment of the refined and attractive features of its natural beauties. While it is obvious that the practice of these clubs cannot be allowed in the Park without destroying some of its chief attractions, yet there is undoubtedly a degree to which play can be admitted.

The problem is to ascertain this limit and to establish such regulations as will control it.

It was thought that, by extending the privilege to boys attending the public schools, the Park might be well made a valuable ancillary to the educational system of the city. The number of children would be sufficient to occupy the grounds to the fullest extent practicable. No unfriendly allegation of favoritism to one class or another would have any foothold for mischief. The children that attend the schools are the children of the people; with the assistance of their teachers, the privilege of the Park play could readily be made an inducement to regular attendance at school and to diligence in study.

Giving effect experimentally to these views during the past season, facilities for play have been extended to considerable numbers of the boys of the schools. At a late period in the season a circular was addressed to the principals of the schools, stating the arrangements of the Commissioners of the Park in this regard.

At one part of the season, play was allowed on the playgrounds for two days in each week; at a later period, on three days in each week; and the increase of applications for play was such as to require the space known as the "green" for the same purpose. 7,520 lads have played on the grounds, and there is every reason to believe that all the facilities that can be extended at the Park for this class of exercise, will be required and fully used by the youth of the city.

The development of this idea will not be limited to boys. It is intended next season to set apart one or more grounds where the girls of the schools can play at croquet and other games under regulations adapted to their amusement and protection.

The Commissioners of the Park do not know of any instance of a satisfactory appearance being maintained in a public park where the play of games is generally allowed on the grass.

Unsatisfactory results are certain to follow such play on the Central Park; and in the effort to pursue a medium course where so many interests are concerned, they will be careful to provide and maintain such thorough regulations as shall ensure that the enjoyments in which the public now participate shall not be diminished.

Convenient arrangements specially adapted to the amusement of a still younger class of children than those who are not yet quite equal to the sturdy conflicts of the active games that interest the older boys have appeared to be desirable.

With the view of satisfying this apparent need, the Commissioners have made on the lower Park somewhat extensive arrangement for their accommodation, and designed to afford them opportunities for amusements suited to their age. A structure of adequate dimensions of a rustic character, is in process of erection at an accessible point. It will be partially closely roofed as a protection from sun and rain, and partially of an open framework to be covered with foliage. A smooth floor of 110 feet in diameter is contemplated, with benches, blocks, and other small facilities for children's amusement.

This arbor-like structure is subdivided into compartments and corridors of divers shapes and dimensions by wide rustic seats or lounges, introduced between the uprights, in each of which tables are placed for the use of the children; the general aim being to provide for a number of groups, each of which can have the advantage of the accommodation without interference with the other.

Around the outside of the structure is an open verandah, unoccupied by seats or tables, affording a running stretch of several hundred feet. In the immediate vicinity is the dairy, from which will be dispensed milk and other light and simple refreshments. A small, secluded green sward is provided, upon which children can tumble about when sunshine favors.

This feature, which has been for some time in contemplation, is now being carried out on a tract of ground east of the play-ground, and south of the Mall. The situation has been chosen, after careful deliberation, because it is comparatively isolated, and interferes with no other part of the design; it is not remote from the southerly boundary of the Park, and is easily approached by the protected system of footwalks from the Fifth, Sixth, Seventh and Eighth avenue entrances at Fifty-ninth street.

No difficulty or danger will attend the passing to and from of the children and their attendants, even when the Park roads are crowded with vehicles.

The Park, as a whole, is undoubtedly expected to afford to the citizens of the metropolis, day after day, and year after

year, a succession of views of rural character so real and genuine as to convey very positive ideas in regard to natural scenery, even to a person who might never see anything more country-like than will ultimately be contained within its limits; and this, in connection with the opportunity it offers for a social enjoyment of fresh air and exercise, is perhaps the most important service that it is calculated to perform in a direct way. Hill and dale, wood and water, grass and green leaves, are the natural food and refreshment of the human eye—an organ of sense so delicately adjusted as to require something more than dull colors and uninteresting forms, and is but little ministered to, in a pleasant way, in the portion of the city devoted to plain, straightforward business, or even domestic routine.

Indirectly, however, the influence of the Central Park as an educator of the popular taste, in regard to natural scenes, works in the same way as it has been shown to do in reference to the more easily defined amusement of skating, and as it may doubtless be made to do in other matters, such as music, play-grounds, zoological gardens, museums, &c.”



**DOCUMENT NO. 59.**

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**B O A R D**  
OF THE  
**Department of Public Parks.**

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**M A Y 20, 1874.**

Report of the Landscape Architect upon works proposed to be prosecuted during the remainder of the year, with a statement of the estimates therefor.

Accepted and ordered printed as a document of the Board.

**WM. IRWIN,**  
*Secretary. D. P., P.*

DEPARTMENT OF PUBLIC PARKS,  
OFFICE OF DESIGN AND SUPERINTENDENCE, }  
NEW YORK, 19th May, 1874.

To the

HON. HENRY G. STEBBINS,

*President of the Board :*

SIR:—I present herewith a list of works prepared, under your instructions, with a view to a suitable distribution of the funds available to the Board for appropriation to “Parks and Places.”

The amount assumed to be available is \$478,000, being the amount lately authorized by the Legislature to be used by the Department, viz. : \$250,000, added to the amount unused of that previously authorized, viz. : \$228,000.

Of the total sum of \$478,000, \$127,910 will be required to meet liabilities on contracts and orders already issued, and a further sum of \$125,000 is for the present set aside as an allowance for salaries, extraordinary contingencies and for carrying over. The salaries cannot, as yet, be definitely estimated, but I am advised will not probably exceed \$40,000, which leaves for extraordinary contingencies and carrying over the sum of \$85,000, out of which I should think it safe for the Board to take forty to fifty thousand dollars, to add, if deemed expedient, to the following detailed items, either by increasing the amounts apportioned to any of the special purposes named, or by restoring to the list some of the items heretofore intended to be included in the work, but which are herein proposed to be suspended. A list of such suspended undertakings follows the list of estimated works.

CENTRAL PARK.	Contract liabilities, May 18th, 1874.	Proposed apportionment of additional available funds.	OTHER PARKS.	Contract liabilities, May 18th, 1874.	Proposed apportionment of additional available funds.
Eighth avenue wall.....	\$84,050	\$10,000	Morningside Park.....	\$1,010	\$20,000
Eighth avenue slopes.....		10,000			
Drives and borders near 110th street.....	2,720		Riverside Park.....	2,100	5,000
Changes of walks near Eighth avenue and Eighty-fifth street.....		1,850			
Entrance Eighth avenue and 100th street.....		2,200	Five Points Park.....	180	12,400
System of protected walks S. E. quarter of Park.....	19,790	34,000	Washington Square.....		9,000
Concert ground on Mall.....		4,000	Union Square and Lincoln Monument.....	6,380	2,200
Boat-house.....	4,470	8,750	Madison Square and Worth Monument.....		150
Conservatory and its plants.....		2,000	Reservoir Square.....		1,200
Belvedere.....		15,000	Mount Morris Square.....		6,000
Alterations near fourth transverse road.....		3,000	Place, Fifth avenue, Fifty-eighth and Fifth-ninth streets.....		5,000
Esplanade flag-staffs and bases.....		1,000	Fifty-ninth street, adjacent to Park.....		2,000
Foundation of fountain S. end of Mall.....		1,000	Tompkins Square.....	310	1,900
Additional seats, urinals, fountains, &c.....	1,000	12,000	Grand street Park.....		1,000
General planting.....	4,870	7,500	Stuyvesant Square.....		4,200
Constructions in shops, stables, offices, &c.....		500	Urinals.....		
Manhattan square.....		10,000			
Contingencies, Central Park.....		15,000			
Totals Central Park....	\$116,900	\$137,800	Totals smaller Parks....	\$6,870	\$45,050

SUMMARY.	Contract liabilities, May 18, 1874.	Proposed apportionment of appropriation.
Central Park.....	\$116,900	\$137,800
Morningside.....	1,010	20,000
Riverside.....	2,100	5,000
Small Parks.....	6,870	45,050
Miscellaneous labor.....		5,240
"    material.....	1,030	12,000
Salaries, contingencies and reserve.....		125,000
Totals.....	\$127,910	\$350,090 127,910
Available funds.....		\$478,000

UNDERTAKINGS PROPOSED TO BE SUSPENDED.

Filling on line of 110th street.  
 Drives and borders near 110th street.  
 Entrance, Eighth avenue and 110th street.  
 Wall on 110th street.  
 Wall on Fifth avenue.  
 Fifth avenue slope.  
 Merchants' Gate.  
 Carrousel.  
 Cottages.  
 Sheepfold or Aquarium.  
 Antelope Paddock, fences and house.  
 New house for animals.  
 Road Steps.  
 Battery.  
 City Hall Park.  
 Jackson Park.

Places, Boulevard, Sixty-third street and Sixty-fifth street.  
Park avenue parks.  
Christopher street and Abingdon parks.  
Canal street park.  
Tompkins square.  
Duane street park.  
Beach street park.

Of the works above proposed to be suspended, the two items which I think most desirable to be restored to the active list are those for the improvement, by a building and proper ground for concerts, of Madison square and Mt. Morris park, the present arrangement on these grounds being incompatible with their good management, and not allowing the public due value for what is necessarily expended on them in maintenance. The sums required for these purposes would be : for Mt. Morris, \$10,000; for Madison square, \$20,000; which would reduce the reserve to \$55,000.

I would respectfully recommend the Board to adopt the estimates above presented, with such additions and revisals as shall be thought expedient, and to require a review of the same to be laid before it, monthly, showing what amount of the sum set against each item has been expended, what remains of such sum, and whether the rate of cost appears to be greater or less than was anticipated in the estimates.

I would also recommend that no order for work be given without reference to some unexpended sum of the adopted apportionment.

Respectfully,

FRED. LAW OLMSTED,  
Landscape Architect.

**DOCUMENT No. 60.**

*(Supplement.)*



**BOARD**

OF THE

**Department of Public Parks.**



JANUARY 20TH, 1875.

Report of the Executive Committee upon the construction of  
Riverside Park and Avenue.

Ordered to be printed as a document of the Board.

**W. IRWIN,**  
*Secretary, D. P. P.*

DEPARTMENT OF PUBLIC PARKS, }  
NEW YORK, 15th January, 1875. }

*To the Board of Commissioners  
of the Department of Public Parks :*

The Executive Committee present the following report upon the subject of Riverside Park and Avenue.

I.—THE WIDENING OF THE AVENUE.

By the Laws of 1867, Chapter 697, the west side map made and filed under it, and the confirmation of the report of the Commissioners of Estimate and Assessment on 8th August, 1872, the Riverside Avenue became one of the avenues of the city of New York, and the Riverside Park one of its parks.

By the Act of 1873, Chapter 850, this Department, with the concurrence of the Department of Public Works, was authorized to re-establish the grades and the westerly line of Riverside Avenue, and thus to enlarge or diminish its width. This can be done with the concurrence of the Department of Public Works.

Riverside Avenue will then cease to be an avenue of even width between parallel sides, and will become an avenue of varying width, adapted to the plan of treatment proposed by Mr. Olmsted,\* that is, all the land of this Riverside territory east of this new western boundary line will be an avenue, and all west of it a park.

By this change, the power and control of this Department over the park will remain unaffected.

Upon the avenue it can determine the lines of curb and other surface constructions, plant trees, construct and erect seats, fountains, statues and work of art, and have power to regulate the uses of the avenue and the erections and pro-

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\* See his report published herewith, Doc. No. 60.

jections thereon (Laws 1873, Chapter 850, sec. 1). It can, therefore, adopt the plan of treating the surface of the avenue recommended by Mr. Olmsted, and to divide it into carriage-ways, sidewalks, paths and unpaved natural spaces for lawns, planting and ornamental structures as shown upon that plan.

## II.—THE WORK OF CONSTRUCTION.

Prior to the Charter of 1873, the Department of Parks had control of the work of construction within the Park limits, and (Chapter 697, Laws of 1867, Sections 1 and 6) power to lay out, close, widen, establish grades and make regulations as to the use of the border avenues and also (Chapter 288, Laws of 1868, Section 5), to do the work of construction on these border avenues. The relation of these border avenues to the Parks, for the sake of unity of control and treatment, furnished a reason for giving this Department a power over them which it did not have over other avenues.

By the Act of 1872, Chapter 872, Section 7, all the powers of this Department in relation to these border avenues was transferred to and conferred upon the Department of Public Works.

This was the situation when the Charter of 1873 (Chapter 335), went into operation (30th April).

This charter, in endowing the new Departments it created, gave them in a general provision (Section 118), and in many cases expressly (Section 74, Department of Public Charities and Correction; Section 83, Department of Parks; Section 86, Department of Buildings; Section 87, Department of Taxes and Assessments; Section 88, Department of Docks), the same powers that the departments of the same name had previously possessed.

But in this respect, the creation of the Department of Public Works was different. The charter gave to it, as a new De-



partment, cognizance and control of certain specified subjects (Section 71), and in the clause at end of Section 73, where the powers of the previous Department in respect to streets, &c., are conferred upon it, the border avenues are excluded.

Section 83 of the charter declares that the Department of Parks shall control and manage the parks and border avenues. These words "*control and manage*," as they are used in the charter in respect to other departments and in previous acts relative to this Department, have a sense broad and comprehensive enough to include such general powers as, under the framework of the charter, may properly belong to them.

The construction work on the border avenues is not expressly or exclusively given to the Department of Public Works, but is excepted therefrom, and is within the general scope of the powers and duties given to this Department.

Express power of legislation over this construction is given to the Common Council.

By Section 17, Subdivision 10, as amended by the Act of 1873, Chapter 757, Section 6, they have power to "*provide for and regulate*" this construction work, by Section 90 they are authorized to provide for "the fuller organization, perfecting and carrying out of the powers and duties prescribed to any department by this Act," and Section 91 gives them power of regulating by ordinance all works done by the City Departments.

They may, therefore, by ordinance provide for the construction of Riverside Avenue, and may by their ordinance direct that it shall be done by the Department of Public Works, or by this Department.

### III.—THE ASSESSMENT FOR THE WORK ON THE AVENUE.

When the Riverside territory was taken for the public use, one distinct portion was taken as an avenue, and another as a

park. By the widening, a strip of the portion originally taken as a park is now embraced within the lines of the avenue. The new avenue, as widened, is an avenue of the city, the same as the former avenue of 100 feet in width. Both of these portions, the park and the avenue, were taken for the public use, *i. e.* for the use of the people of the State, and the Legislature has the right to declare and to change the public use. The fact that a portion of the widened Riverside Avenue was originally taken as a park, did not impede the power of the Legislature to change the use, nor does it prevent the widened avenue from becoming an avenue of the city.

This doctrine was stated in the Broadway Railroad case as follows :

People *vs.* Kerr, 27 N. Y., p. 192 :

“ So far as the existing public rights in these streets are concerned, such as the right of passage and travel over them as public highways, a little reflection will show that the Legislature has supreme control over them.”

“ The Legislature may change one kind of public use into another, as long as the property continues to be devoted to public use. What belongs to the public use may be controlled and disposed of in any way which the public agents see fit.”

“ As long as the public use, to which a highway or any other public property or right is to be applied or transferred, is a public use, it is a matter of discretion in the Legislature to permit its application or transfer.”

It follows from this that any of the work usually done on avenues, such as regulating, grading, paving, curbing and flagging, can be done upon this widened avenue, according to the plan which the department may determine, and the cost thereof may be assessed upon the property benefited, in the same way that the cost of such work on other avenues is assessed.

But there is a technical question whether this widened avenue comes within the provisions of law for imposing assess-

ments which must be considered, and any objections arising therefrom must be obviated.

Section 8 of chap. 697 of the Laws of 1867, under which the original Riverside Avenue was laid out, provides for the "payment for any work," etc., for regulating, grading, improving, etc., any avenue, etc., "the construction or maintenance of which" by law is or shall be under the direction, control and management of the Department of Parks; for the issuing of bonds to pay for such work, and for the application of the proceeds of the assessments laid upon the property benefited toward the redemption of the bonds. Section 9 of the same chapter provided for the assessment for such work and for the collection thereof.

The avenue as originally laid out was one, "the construction or maintenance of which" was under the direction, control and management of this department (Laws 1867, chap. 697, sections 1 and 6; Laws 1868, chap. 288, section 5). The widened avenue is not, by the law of 1873, chap. 850, in express terms as to its construction or maintenance, placed under the direction, control and management of this department, nor is it, as was done in another case (Laws 1871, chap. 290, sec. 10), declared to be an avenue with the same effect as if it had been so laid out originally.

A distinction might therefore be urged, separating the work done on the area, added to the avenue by the widening, from that done on the rest of the avenue, injurious to the progress of the work and to the validity of the assessment.

We therefore report that the question we present in respect to the assessment can be obviated by the passage of a law by the Legislature, providing in terms similar to the 8th and 9th sections of chapter 697, Laws of 1867, that the cost of construction of the carriage-way, walks and drives shown upon Mr. Olmsted's plan, as adopted by this department, upon the widened Riverside Avenue, should be paid for by the comp-

troller, that bonds, therefore, should be issued, and that the cost should be assessed, one-half upon the city and the other half on the property benefited, and that the whole of the Riverside territory not so laid out should be held to the public use as a park.

And that then the Riverside avenue, from Seventy-second to Eighty-fifth street, and from Eighty-eighth to One Hundred and Twenty-ninth street, be regulated and graded, paved, flagged and set with curb and gutter, according to the plan adopted by the board, by ordinance of the Common Council.

And we recommend that the report and map of Mr. Olmsted and this report be communicated to his Honor the Mayor, to the end that he may procure such legislation thereon as may be proper and necessary.

The construction of the avenues bordering on Morningside Park can be provided for by ordinance of the Common Council, as stated in the second section of this report, and we recommend that an application for such an ordinance be made.

Respectfully submitted,

THOMAS E. STEWART, } *Executive*  
WILLIAM R. MARTIN, } *Committee.*

**DOCUMENT No. 61.**

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**BOARD**

OF THE

**Department of Public Parks.**

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**JANUARY 20th, 1875.**

Report of the Civil and Topographical Engineer, with reference to desirable improvements and additions in the Twenty-third and Twenty-fourth Wards.

Received, and ordered to be printed as a document of the Board.

**WM. IRWIN,**

*Secretary, D. P. P.*

DEPARTMENT OF PUBLIC PARKS,  
Office of Civil and Topographical Engineer. }

NEW YORK, Dec. 16th, 1874.

HON. H. G. STEBBINS,

*President, D. P. P.:*

Sir,—In reference to your letter requesting my views in reference to desirable improvements and additions to the plans already adopted for the Twenty-third and Twenty-fourth Wards, I have the honor to

REPORT.

In laying out the streets much is required to be done. The principal districts needing sewerage and drainage require the streets to be laid out and opened for this purpose.

The principal points requiring immediate attention are Mill Brook, from tide-water to Fordham, the level ground in the vicinity of Union Avenue, the district along the Harlem Railroad, north of Mott Haven station, the district bounded by the Southern Boulevard, 149th Street, and Port Morris Railroad, West Farms Village and vicinity, and Tibbett's Brook valley. All these districts require early attention. The secondary sewers should be built as needed, when the main sewers are finished.

In order to construct the sewerage and drainage, the streets in which sewers are to be built should be opened, but not worked until the sewers are constructed.

The adoption of the plans of streets now in progress of preparation, should be done as fast as the work can be prepared, especially in the vicinity of the railroads where the property is being subdivided and occupied.

The laying out of the streets on the Bronx River valley, a portion of one bank of which stream is in the city, requires a careful study, and some legislation to produce uniformity of action, in relation to sewerage of the villages growing upon the banks.

To allow the sewerage to be thrown into the stream would produce certain destruction to the health of all residing in the lower part of the valley of this stream.

Early measures should be taken to secure this stream, not only from sewerage, but from any nuisances from private parties occupying the banks of the river.

Safety of travel requires that over-road crossings should, at as early a day as possible, be made at the points where the principal avenues passing from east to west cross over the Harlem Railroad.

Some of the principal avenues require to be opened and worked at an early day; of these is Sedgwick Avenue, extended and connected with Riverdale Avenue and Broadway in Kingsbridge district, and the avenue from Kingsbridge to Spuyten Duyvil Station, and thence north to the north line of the city, and Brook Avenue to Harlem Railway, and Webster Avenue extended to Fordham.

Subsoil drainage, which is absolutely necessary for the health of all sewered districts, should be built in connection with the sewerage, and at the same time.

It is an essential part of the sewerage.

If the Department, which has the sole power to construct sewers, has not authority to construct the necessary connecting subsoil drains, it should be conferred, for it could not be done by different Departments at the same time without greatly increased expense.

The new Kingsbridge road extends to the bulkhead line opposite the south end of the road called Broadway, in the late town of Kingsbridge. Some communication will be required across Harlem River at this point, as the old Kingsbridge will be out of the way for any direct connection across the river.

I suggest if it will not be best for the Department to ask authority to build a new tunnel or bridge sooner than it can

be done under existing laws, which require the Department to construct the tunnel at Seventh Avenue, the bridge near High-bridge, and the communication across the river at Fifth Avenue, besides others across Harlem River. If such authority is given, there should also be authority, in building the tunnel or bridge, to deepen the channel at the bridge, and widen it to the bulkhead lines ; as this could not be well done after the bridge or tunnel should be built, and also for removing the old bridge, which stops navigation at that point. The communication across the river at Seventh Avenue, requires attention.

The condition of the wooden bridge across Harlem River at that point requires that some substitute for that structure should be commenced at an early day. Respectfully submitted.

Very respectfully,

Your obedient servant,

(Signed)

GEORGE S. GREENE,

*Civil and Topl. Engr.*



**DOCUMENT NO. 62.**

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**BOARD**

OF THE

**Department of Public Parks.**

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**JANUARY 20, 1875.**

Report of the Civil and Topographical Engineer upon a  
a plan for laying out certain of the principal streets and  
avenues in the Twenty-third and Twenty-fourth Wards.

Received and ordered printed as a document of the Board.

WM. IRWIN,  
*Secretary, D. P. P.*

DEPARTMENT OF PUBLIC PARKS, }  
Office Civil and Topographical Engineer. }

January 14th, 1875.

Hon. H. G. STEBBINS,

*President, D. P. P. :*

Sir,—In reference to a plan laying out the whole of the Twenty-third and Twenty-fourth Wards, I have the honor to

REPORT.

In that part of these wards formerly included in the town of Morrisania I do not propose any extensive changes. There are some minor changes which will be presented to the Board, one of which will be to make a through avenue from the east side of the city at West Farms from near the Hunt's Point road and Southern Boulevard to 167th Street, to Central Avenue and to the site of the projected suspension bridge near High Bridge with moderate grades and a proper width for such an Avenue. Similar avenues to cross the Harlem Railroad at Central Morrisania, Tremont, and Fordham, with over-head bridges across the railroad, will give facilities for travel east and west across this part of the city.

Of other principal avenues, Webster Avenue to be continued up the valley of Mill Brook and Bronx River to the north city line. This avenue will have very low grades and should be carried through Woodlawn Cemetery in the low ground adjacent to, and west of the railroad. If this road is not carried through the cemetery, the only alternative for connecting the extreme north part of the city and the country above with the lower part, will be either by passing over the high hill west of the cemetery, or by going out of the city east and crossing the railroad and Bronx River twice in a distance of 3,500 feet. I think the public convenience imminently requires this road to be laid on the eastern margin of the cemetery lands, where it will do the least injury to their property.

The valleys of Tibbett's Brook, Cromwell's Creek, Mill Brook

and Bronx River laying northerly and southerly, the consequent topography determines the direction of the principal avenues. Those already built and which will be slightly modified are the Southern Boulevard, principally in the valley of the Bronx; the Third Avenue and Webster Avenue in the valley of Mill Brook; Central Avenue in the valley of Cromwell's Creek; Sedgwick Avenue on the slope of Harlem River, connecting with Broadway in the valley of Tibbett's Brook and to Yonkers, and with other avenues up the valley of Tibbett's Brook to the north line of the city; Riverdale Avenue extending from the mouth of Tibbett's Brook, on the westerly slope of Tibbett's Brook valley to Yonkers. The map of that part of the city between Hudson River and Riverdale Avenue has been presented for your consideration. The same general plan there presented will be followed for laying out the other parts of the city. Longitudinal avenues running northerly and southerly in general direction and conforming to the topography as to give minimum grades, and convenient access to the property through which they are located. These avenues will in general be from 200 to 300 feet apart, according to the topography and the capacity of the land for division into smaller or larger subdivisions.

Cross streets will be introduced as frequently as 1,000 feet apart, whenever the ground is suitable for such division, as often as once in half a mile, (as the ground may suit). Cross avenues will be laid with light grades for communications easterly and westerly.

The principal cross avenues will be:

1. 138th Street from East River to Harlem River.
2. 144th Street from East River or Easton Avenue to Harlem River.
3. Cliff Street and 161st Street from Southern Boulevard to Central Avenue.

4. 167th Street from Hunt's point and from West Farms to Suspension Bridge.

5. Avenue crossing railway near Central Morrisania Station from West Farms Village to Central Avenue and to Suspension Bridge.

6. Avenue crossing railway at Tremont from West Farms Village to Harlem River.

7. Pelham Avenue continued to Harlem River.

8. Avenue from Williams Bridge with two branches to Riverdale Avenue.

9. Avenue north of Woodlawn Cemetery, connecting with Mosholu Avenue and extending to Riverdale Avenue.

Most of these avenues I expect to locate with a maximum grade of 5 feet per mile.

The following are the considerations which will guide me in the location of the streets and avenues :

To establish the streets for direct communications to the centres of business, and convenient drives for health and social intercourse, with proper drainage and with as low grades as the topography will admit of, modified as far as consistent with a proper consideration for the public interests, by the following circumstances, viz.:

1st. The use when possible of existing roads.

2d. Laying roads on or near property lines.

3d. Convenient divisions of property.

4th. Convenience to existing houses.

5th. Wishes of property holders.

6th. Locating all streets with a view to surface and sewerage drainage.

On the accompanying printed topographical map I have in-

licated by blue and red pencil lines the general direction of the principal avenues, which I think will be required in laying out this district.\*

These lines will require some modifications to give suitable grades in their final locations.

Very respectfully,

Your obedient servant,

(Signed)

GEO. S. GREENE,

*Civil and Topl. Engineer.*

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\* This map can be examined at the office of the Department, No. 36 Union Square.

**DOCUMENT No. 63.**

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BOARD

OF THE

Department of Public Parks.

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JANUARY 29th, 1875.

Reports of the Landscape Architect upon estimated expenditures for construction during the year 1875;  
And for repairs to architectural structures.

Received and ordered printed as a document of the Board.

WM. IRWIN,

*Secretary, D. P. P.*

DEPARTMENT OF PUBLIC PARKS, }  
 OFFICE OF DESIGN AND SUPERINTENDENCE. }  
 NEW YORK, 27th January, 1875.

To the Hon. HENRY G. STEBBINS,

*President of the Board :*

Sir,—Under the instructions of the Board, I respectfully present the following suggestions as to the expenditures for constructions desirable to be made during the year 1875, not including liabilities under existing contracts and which are provided for :

- |   |          |
|---|----------|
| 1. To finish up works on the Central Park in an advanced stage of progress, as specified in subjoined Statement A.....                                    | \$55,700 |
| 2. To complete parts of enclosing wall on Eighth Avenue (partially under contract and in an advanced state).....  | 12,000   |
| 3. To complete work in progress, made necessary by the regrading of Eighth Avenue and in connection with the above wall (south of 106th Street).....      | 28,000   |
| 4. To complete reconstruction of entrance roads and walks made necessary by changes of grade on Eighth Avenue.....  | 6,000    |
| 5. For constructions ordered in Central Park as per Statement B.....  | 2,600    |
| 6. For a cottage, scups, &c., east side of Central Park, near Sixty-eighth Street (required to replace wooden structures dilapidated and taken down)..... | 6,000    |
| 7. For a cottage on west side of Central Park (to   |          |

replace one much dilapidated and another removed, and also designed to supply other needed accommodations).....	\$10,000
8. For construction of approach roads and grading in connection therewith for Museum of Art (which will be required for use next year)	10,000
9. For plantations, Central Park, as per statement C.....	15,250
10. For system for lighting Fifty-ninth street and Mall, from Fifth to Eighth avenues; replacing dead trees and providing tree guards and seats for the same.....	12,000
11. To finish works on the small parks in an advanced stage of progress, as specified in Statement D.....	6,000
12. To complete fountains, urinals, pavements, railings and lamps in small parks, as per Statement E.....	31,600
13. For the reconstruction of Christopher Street Park (now useless and unseemly, the fence, curbing and sidewalk being dilapidated and threatening a nuisance).....	16,000
14. For the revision of Tompkins Square, to better adapt it to its present purposes, and as a park.....	50,000
15. For filling in of sunken ground, Manhattan Square, about the Museum of Natural History.....	50,000
16. For a pavillion with water-closets for men and women, at Mt. Morris (none at present, and much needed).....	10,000



17. For planting the Mall or sidewalk of Fifth avenue against Central Park . . . . .	\$1,250
18. For planting the Mall or sidewalk of Eighth Avenue against Central Park . . . . .	7,500
19. For planting smaller parks . . . . .	5,000
20. For nursery and propagating establishment, as per Statement F . . . . .	7,500
21. For miscellaneous and general expenses . . . . .	50,000
22. For contingencies . . . . .	25,000
23. For Riverside Park . . . . .	50,000
24. For Morningside Park . . . . .	50,000
	<hr/>
	\$517,400

Respectfully,

FRED. LAW OLMSTED,  
*Landscape Architect.*

**Statement A—(No. 1).**

1. To complete "southeast walk system" (on which \$60,000 has already been laid out, and which will be of little use until completed) . . . . .	\$14,000
2. To complete work on drive, ride, walks and borders, southeast of North Meadow (now nearly completed) . . . . .	2,200
3. To complete building serving as pavillion, boat and skating house, with water-closets (carpenter work done and iron contracted) . . . . .	14,500
4. To complete pavillion, retaining wall and stairs northwest of Belvedere (one-third of the stone for same being cut and ready for laying),	25,000
	<hr/>
	\$55,700

**Statement B—(No. 5).**

Sundry constructions ordered on Central Park :

1. For road steps,.....	\$600
2. For completion of fountains, flag-staffs, seats and rails,.....	2,000
	<hr/>
	\$2,600

**Statement C—(No. 9).**

To plant new ground :

Slopes of Eighth Avenue and of 110th Street....	\$6,000
85th Street Entrance.....	1,000
100th Street Entrance.....	500
Southeast Walk system.....	500
Southeast of North Meadow.....	250
To fill gaps in hedges—	
of Transverse Roads.....	2,000
For thinning out—	
of old plantations.....	5,000
	<hr/>
Total, planting, Central Park.....	\$15,250

**Statement D—(No. 11).**

To complete sundry works in an advanced stage at :

City Hall Park.....	\$1,200
Five Points Park.....	3,000
Washington Square.....	1,000
Reservoir Square.....	500
The Plaza.....	300
	<hr/>
	\$6,000

**Statement E—(No. 12.)**

For additional improvements in the City Hall Park . . .	\$500
For enclosure of Lincoln Monument (ordered), and completion of fountain, Union Square . . . . .	4,000
For completion of fountain Madison Square (ordered).	4,000
For completion of Places at Sixty-third and Sixty-fifth streets, Boulevard (ordered) . . . . .	12,700
For completion of walks and exterior sidewalks, Mt. Morris . . . . .	6,000
For completion of urinals, pavements and necessary changes in connection with them at Canal and Grand Street Parks (ordered) . . . . .	5,400
	<hr/>
	<b>\$31,600</b>
	<hr/>

**Statement F—(No. 20.)**

## NURSERY.

For general stock . . . . .	\$4,000
For special stock, for street planting . . . . .	2,500
For compost, frames and pits for bedding plants . . . . .	1,000
	<hr/>
	<b>\$7,500</b>
	<hr/>

Respectfully,

FRED. LAW OLMSTED,  
*Landscape Architect.*

DEPARTMENT OF PUBLIC PARKS,  
 OFFICE OF DESIGN AND SUPERINTENDENCE, }  
 NEW YORK, 28th January, 1875.

To the HON. HENRY G. STEBBINS,

*President of the Board :*

Sir,—Under instructions of the Board of 20th inst., I respectfully present the accompanying report of the Superintending Architect, showing that since the 28th of August last, the increased injury to the architectural structures of the Central Park, due to failure of the repairs then recommended, may be moderately estimated at \$10,000, and that the cost of putting these structures in sound condition should now be estimated at \$55,000.

Respectfully,

FRED. LAW OLNSTED,  
*Landscape Architect.*

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DEPARTMENT OF PUBLIC PARKS, }  
 NEW YORK, January 22d, 1875. }

F. L. OLNSTED, Esq.,

*Landscape Architect :*

Sir,—In answer to your inquiry as to the present condition of the architectural structures on the Central Park, upon which I made you a detailed report on the 28th of August last, I have to report that I have recently made a careful examination of these constructions. I find them in general in a worse condition than they were last summer. The arches, especially, need a thorough overhauling ; the leakages stated in detail in my report of August last, have become greater in almost every

instance, and together with the effects of the cold weather, have very materially injured the stone and brick work. If they are not soon put in order the damage will probably become so great in some instances as to involve the reconstruction of several of them, and the longer these necessary repairs are delayed the greater will be the cost to the city.

The delay of the repairs advised in my former report has already involved an expense of at least \$10,000, which amount should now be added to my former estimate of \$45,000, given August 28th, 1874, as the amount required to put the structures in question in sound condition.

**JULIUS MUNCKWITZ,**

*Supt. Architect, D. P. P.*

**DOCUMENT No. 64.**

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**BOARD**

OF THE

**Department of Public Parks.**

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**MARCH 5th, 1875.**

A communication from Commissioner William R. Martin,  
relative to the prosecution of public improvements in this city.

Received and ordered to be printed as a document of the  
Board.

**WM. IRWIN,**

*Secretary, D. P. P.*

DEPARTMENT OF PUBLIC PARKS, }  
New York, February 20th, 1875. }

*To the Board of Commissioners :*

From the reports of the Department and other sources have been compiled :

1st. A tabular statement showing the whole of the moneys appropriated to and expended by this Department, classifying them by years, and by the object of expenditure, including the cost of construction and maintenance ;

2dly. A narrative statement of the names of the Commissioners successively in administration, the work from year to year undertaken, so as to show how the operations of the Department and the duties imposed upon it by law have been extended ; and,

3dly. A statement of the proportion of the cost of public improvements borne by the city and by private property, the gain to the city, and compensation for its expenditure in the increase of the value of the real estate affected by these expenditures, and the gain to the revenues of the city by the taxation on this increase.

These will show :

1st. The value of the results produced by this expenditure on the part of the city.

2dly. The economy of the maintenance.

3dly. The importance of the completion of the works under the control of the Department.

4thly. The present reduced expenditure and the necessities imposed on the present administration by the works planned and undertaken by those that preceded it.

The present is an appropriate time for these statements ; because the most rigid economy should be exercised, the expenditures should be limited to the safe custody and preservation of the works and property already completed and acquired, and to the judicious application of money on such new works as will clearly promote a sound increase in the value of property. This policy will lead to the settlement of the land in the vicinity of the parks with population, and will realize the benefit which has been the motive of every plan that has been adopted, and every dollar that has been expended, up to the present time.

### **1st. Tabular Statement of Expenditures.**

The following tabular statement shows the expenditures made in each calendar year, the purposes for which such expenditures were made, the amounts received in each year, together with the amount of surplus or deficiency carried to each succeeding year :



**TABULAR STATEMENT OF EXPENDITURES.**

	1857.	1858.	1859.	1860.	1861.	1862.	1863.	1864.	1865.
1 Construction Central Park.	\$77,881 41	\$507,487 86	\$1,179,246 47	\$878,354 95	\$479,163 66	\$461,540 32	\$331,871 60	\$452,590 23	\$366,915 38
2 Maintenance " "				65,893 65	111,949 15	133,254 30	179,373 08	180,303 70	230,725 99
3 Island above 155th St.....									7,164 21
Total exp'ture for the year.	\$77,881 41	\$507,487 86	\$1,179,246 47	\$944,248 60	\$591,112 81	\$594,794 62	\$511,244 68	\$632,893 93	\$604,805 58
Total receipts for the year..	\$304,050 39	\$304,661 85	\$1,066,800 12	\$1,098,620 05	\$576,330 93	\$752,064 94	\$485,936 52	\$488,913 03	\$593,549 06
Surplus to the next year...	\$226,168 98	\$23,342 97	.....	\$65,268 07	\$50,486 19	\$207,756 51	\$182,448 35	\$38,467 45	27,210 93
Deficiency to the next year.	.....	.....	\$89,103 38	.....	.....	.....	.....	.....	.....

	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	Totals.
1 Construction Central Park.	\$250,983 17	\$199,264 06	\$249,822 12	\$340,265 91	\$555,345 36	\$1,096,138 30	\$828,519 43	\$625,653 67	\$444,284 91	\$9,325,328 81
2 Maintenance " "	244,826 32	258,962 84	274,046 16	275,767 05	337,584 46	457,910 99	326,966 60	329,796 36	331,646 47	3,739,207 12
3 Island above 155th St.....	8,492 99	9,333 28	7,977 40	7,759 43	7,706 79	3,117 10	6,544 40	888 21		58,983 81
4 Eighty-first St.....	4,015 59	17,082 23	3,902 18							25,000 09
5 Seventy-seventh St.....	32 20									32 20
6 7th Avenue Boulevard.....	3,006 36	35,471 14	112,104 23	179,814 97	186,286 65	319,891 42	150,086 87			986,601 64
7 West Side.....	4,928 09	5,008 09	4,742 54	398 94	145 00	813 66				16,036 32
8 Mount Morris Square.....		5,151 51	4,345 06	15,947 74	39,396 12					64,840 43
9 Avenue St. Nicholas.....		422 50		862 48	80,536 83	197,201 23	43,972 63	175 00		323,170 73
10 Manhattan St.....		80 00				42,004 17	99,248 26			141,332 43
11 Grades above 110th St.....		525 62								525 62
12 6th Avenue Boulevard.....			39,662 14	76,564 56	278,117 47	288,211 16	4,371 36			686,926 69
13 Circle, 8th Ave. and 59th St.			12,084 64	22,499 53	15,781 25	13,159 13				63,524 55
14 Broadway Boulevard.....			65,068 15	601,227 64	674,224 74	687,274 02	259,780 33	5 22		2,287,580 10
15 Maintenance Museum, Ob- servatory and Gallery of Art.....				12,818 99	29,082 38	55,305 99	51,300 30	19,526 95	13,905 49	181,940 10
16 Plaza 5th Ave. and 59th St..				2,725 24	8,918 99	22,213 76				33,857 99
17 145th St.....				7,735 29	7,222 94	27,695 01	323 00			42,976 24
18 Broadway Widening.....				189 25	3,592 75					3,782 00
19 Harlem River Improvement				34 75	1,513 07	48,981 55	19,466 71	9,711 43		79,707 51
20 Town of Yonkers.....					9,948 40	22,791 27	12,628 53	10,609 62		55,977 82
21 Eastern Boulevard.....					4,097 29		39 59			4,136 88
22 Town of West Farms.....					9,865 26	27,022 10	14,513 63	6,104 13		57,505 82

23	Construction Museum and Observatory.....					47,001 32	117,469 45	3,906 27	777 35		169,154 39
24	Adapting Park to 8th Ave. grade.....					22,834 53					22,834 53
25	Grading 8th Ave.....					1,384 76	86,508 93	24,006 86			111,900 55
26	Improvement City Parks.....					428,354 88	847,548 10	323,543 69	124,447 99	86,523 26	1,810,417 82
27	Riverside Park.....						3,990 05	4,310 63	9,929 84	49,305 90	67,526 42
28	Morningside Park.....					1,732 27	3,573 97	68 18	22,416 77	108,669 22	136,460 41
29	10th ave.....						34,554 41	208,537 94			243,092 35
30	Morningside Ave., West.....						1,571 39	85 27			1,656 66
31	" " East.....						214 08	1,980 00			2,194 08
32	Maintenance roads and avenues.....						24,766 06	20,551 07			45,317 13
33	Maintenance City Parks.....						110,253 80	80,926 04	67,740 36	89,241 38	348,161 68
34	" " Harlem River bridges.....							3,226 56	8,048 18	12,243 04	23,517 78
35	Celebration of Independence Day.....							8,903 00	9,598 97	9,759 60	28,261 57
36	Military Parade Ground.....							163 00	123 04		286 04
37	155th Street.....							1,541 14			1,541 14
38	Metropolitan Museum of Art.....							1,312 99	5,422 12	83,846 84	90,581 95
39	Am. Museum of Nat. History.....							16,033 85	45,696 48	246,554 78	308,285 11
40	Salaries, expenses, &c., chargeable to Maintenance Accounts.....								45,931 92		45,931 92
41	Town of Kingsbridge.....								12,804 72	2,416 38	15,221 10
42	Suspension Bridge, Harlem River.....									315 96	315 96
43	Tunnel, Harlem River.....								1,904 18		1,904 18
44	Town of East Chester.....								572 96		572 96
45	Sea Wall at Battery.....									522 68	522 68
46	Gas bills of 1872 and 1873.....									55,772 78	55,772 78
47	Maintenance 23d and 24th Wards.....									39,647 25	39,647 25
	Laying out, &c., 23d and 24th Wards.....									53,056 71	53,056 71
	Total exp'ture for the year.....	\$516,284 72	\$581,301 27	\$773,754 62	\$1,544,611 77	\$2,750,673 51	\$4,540,111 10	\$2,516,857 99	\$1,358,201 43	\$1,627,396 69	\$21,802,909 06
	Total receipts for the year.....	\$682,115 19	\$470,118 32	\$695,672 81	\$1,586,338 93	\$2,730,906 07	\$4,392,657 30	\$2,613,704 68	\$1,335,490 56	\$1,624,978 31	
	Surplus to the next year.....	\$193,041 40	\$131,858 45	\$53,776 64	\$95,503 80	\$75,736 36		\$25,129 25	\$2,418 38		
	Deficiency to the next year.....						\$71,717 44				

## 2d. Narrative Statement.

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### THE FIRST YEAR.

The work of the Commissioners of the Central Park commenced on the 1st day of May, 1857.

The Commissioners were Messrs. Robert J. Dillon, James E. Cooley, Charles H. Russell, John F. Butterworth, John A. C. Gray, Waldo Hutchins, Thomas C. Fields, Andrew H. Green, Charles W. Elliott, William K. Strong and James Hogg.

Their work was the determination of the plans and commencement of the construction of the Central Park, under Chap. 616, Laws 1853, establishing the Central Park, and Chap. 771, Laws 1857, organizing the Commission.

The expenditures were for :

Construction work.....	\$77,881 41
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### THE SECOND YEAR.

From 1st January, 1858, to 31st December, 1858.

The Commissioners were the same as in the preceding year except that Mr. Dillon retired 21st October ; Mr. Cooley retired 5th January, and Mr. August Belmont became a Commissioner 16th March, with one vacancy.

They continued the construction work of the Central Park.

The expenditures were for :

Construction work .....	\$507,487 86
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### THE THIRD YEAR.

From 1st January, 1859, to 31st December, 1859.

The Commissioners were the same as in the preceding year, except that Mr. Hogg retired 21st April and Messrs. Henry G. Stebbins and Richard M. Blatchford became Commissioners on the same day.

They continued the construction work of the Central Park. The following laws were passed: Chaps. 101, providing

for the extension of the Central Park northerly from 106th to 110th Street ; Chap. 363 for the Seventh avenue Boulevard, and Chap. 349 amending Chap. 771, of 1857.

The expenditures were for :

Construction work.....	\$1,179,246 47
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#### THE FOURTH YEAR.

From 1st January, 1860, to 31st December, 1860.

The Commissioners were the same as in the preceding year, except that Mr. Elliott retired 7th April and Mr. Moses H. Grinnell became a Commissioner on 19th April.

They continued the construction work of the Central Park.

The following laws were passed: Chap. 85 providing for maintenance of the Park, and Chap. 256, providing for the Am. Zoological and Botanical Society.

The expenditures were for :

Construction work.....	\$878,354 95
Maintenance .....	65,893 65
	<hr/>
	\$944,248 60

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#### THE FIFTH YEAR.

From 1st January, 1861, to 31st December, 1861.

The Commissioners were the same as in the preceding year.

They continued the construction work of the Central Park.

The following law was passed: Chap. 88 amending Chap. 771, of 1857.

The expenditures were for :

Construction work.....	\$479,163 66
Maintenance.....	111,949 15
	<hr/>
	\$591,112 81

## THE SIXTH YEAR.

From 1st January, 1862, to 31st December, 1862.

The Commissioners were the same as in the preceding year, except that Messrs. Gray, Strong and Belmont retired on 3d February.

They continued the construction work on the Central Park.

The following law was passed: Chap. 46 providing for the occupation of the Arsenal.

The expenditures were for:

Construction work.....	\$461,540 32
Maintenance.....	133,254 30
	<hr/>
	\$594,794 62

## THE SEVENTH YEAR.

From 1st January, 1863, to 31st December, 1863.

The Commissioners were the same as in the preceding year, to wit: Messrs. Russell, Butterworth, Hutchins, Fields, Green, Stebbins, Blatchford and Grinnell.

They continued the construction work of the Central Park.

The following law was passed: Sec. 4, Chap. 227 making appropriations.

The expenditures were for:

Construction work.....	\$331,871 60
Maintenance.....	179,373 08
	<hr/>
	\$511,244 68

## THE EIGHTH YEAR.

From 1st January, 1864, to 31st December, 1864.

The Commissioners were the same as in the preceding year.

They continued the construction work of the Central Park.

The following laws were passed: Chap. 275 providing for the opening of the Seventh Avenue Boulevard; Chap. 319, annexing Manhattan Square, and Chap. 405, making appropriations.

The expenditures were for:

Construction work.....	\$452,590 23
Maintenance .....	180,303 70
	<hr/>
	\$632,893 93

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#### THE NINTH YEAR.

From 1st January, 1865, to 31st December, 1865.

The Commissioners were the same as in the preceding year.

They continued the construction work of the Central Park, and commenced upon the North End above 155th street.

The following laws were passed: Chap. 564, for opening the Sixth Avenue Boulevard; Chap. 581, for establishing the Eighth Avenue grade; Chap. 565, for laying out the Island above 155th street, and Sec. 7, Chap. 26 and Chap. 646 making appropriations.

The expenditures were for:

Construction on Central Park.....	\$366,915 38
Maintenance .....	230,725 99
Construction above One hundred and fifty- fifth street.....	7,164 21
	<hr/>
	\$604,805 58

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#### THE TENTH YEAR.

From 1st January, 1866, to 31st December, 1866.

The Commissioners were the same as in the preceding year.

They continued the construction work of the Central Park and on the North End, and commenced on the streets bordering on Manhattan Square, the Seventh Avenue Boulevard and the plan of the West side.

The following laws were passed : Chap. 367, providing for laying out Avenue St. Nicholas and Manhattan Street ; Chap. 550, for laying out the West side ; Chap. 632, for re-establishing the Eighth Avenue grade ; Chap. 757, for widening Broadway, from Fifty-seventh to Fifty-ninth Streets.

The expenditures were for :

Construction Central Park.....	\$250,983	17
Maintenance .....	244,826	32
Construction North End.....	8,492	99
Streets bordering on Man-		
hattan Square.....	4,047	79
Seventh Avenue Boulevard..	3,006	36
Laying out the West side...	4,928	09
	<hr/>	
	\$516,284	72

#### THE ELEVENTH YEAR.

From 1st January, 1867, to 31st December, 1867.

The Commissioners were the same as in the preceding year.

They continued the same work and commenced the following : Mount Morris Square, Avenue St. Nicholas, Manhattan Street, and the grades of streets above 110th street.

The following laws were passed : Chap. 580, amending the Eighth Avenue grade ; Chap. 697, the West Side Act.

The expenditures were for :

Construction of Central Park.....	\$199,264	06
Maintenance .....	258,962	84
Construction North End.....	9,333	28
Streets on Manhattan Square	17,082	23
Seventh Avenue Boulevard..	35,471	14
West Side.....	5,008	09
Mount Morris Square.....	5,151	51
Avenue St. Nicholas.....	422	50

Manhattan Street.....	80 00
Grades above One hundred and tenth Street.....	525 62
	<hr/>
	\$531,301 27

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THE TWELFTH YEAR.

From 1st January, 1868, to 31st December, 1868.

The Commissioners were the same as in the preceding year.

They continued the same work, except some of the minor matters, and commenced the Sixth Avenue Boulevard, the Circle and the Broadway Boulevard.

The following laws were passed: Chap. 288, approving the bulkhead lines on Harlem River, etc.; Chap. 853, making appropriations; and Chap. 478, relative to the N. Y. Historical Society.

The expenditures were for:

Construction Central Park.....	\$249,822 12
Maintenance .....	274,046 16
Construction North End.....	7,977 40
Streets on Manhattan Square	3,902 18
Seventh Avenue Boulevard..	112,104 23
West Side .....	4,742 54
Mt. Morris Square.....	4,345 06
Sixth Avenue Boulevard....	39,662 14
Circle, Eighth Avenue and Fifty-ninth Street.....	12,084 64
Broadway Boulevard.....	65,068 15
	<hr/>
	\$773,754 62

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THE THIRTEENTH YEAR.

From 1st January, 1869, to 31st December, 1869.

The Commissioners were the same as in the preceding year.



They continued the same work, and commenced the Plaza at Fifty-ninth Street and Fifth Avenue, One hundred and forty-fifth street, the Broadway widening, the Harlem River and Spuyten Duyvil improvement, and the maintenance of a Museum and Observatory.

The following laws were passed : Chap. 350, for Soldier's Monument; Chap. 595, for Museum and Gallery of Art ; Chap. 826, for the improvement of part of Westchester County and Harlem River ; Chap. 890, for widening Broadway, Thirty-third to Fifty-ninth Street ; and Chap. 689, for public place at Ninth Avenue and Sixty-third Street.

The expenditures were for :

Construction Central Park.....	\$340,265 91
Maintenance do .....	275,767 05
Construction North End.....	7,759 43
Seventh Avenue Boulevard..	179,814 97
West Side.....	398 94
Mt. Morris Square.....	15,947 74
Avenue St. Nicholas.....	862 48
Sixth Avenue Boulevard....	76,564 56
Circle, Eighth Avenue and Fifty-ninth Street.....	22,499 53
Broadway Boulevard.....	601,227 64
Plaza, Fifth Avenue and Fifty-ninth Street.....	2,725 24
One Hundred and forty-fifth Street .....	7,735 29
Broadway widening.....	189 25
Harlem River and S. D. improvement.....	34 75
Maintenance Museum and Observatory and Gallery of Art.....	12,818 99
	<hr/>
	\$1,544,611 77

## THE FOURTEENTH YEAR.

From 1st January, 1870, to 31st December, 1870.

The Commissioners were the same as in the preceding year, until 20th April, when they all retired, except Andrew H. Green. Messrs. Peter B. Sweeny, Henry Hilton, Thos. C. Fields and Robert J. Dillon became Commissioners.

They continued the same work, and commenced the Eastern Boulevard, the construction of the Museum and Observatory, the surveys of Yonkers and West Farms, and the improvement of the other city parks.

The following laws were passed: Chap. 44, for laying out One hundred and thirty-sixth Street; Chap. 593, for improving Eighth Avenue; Chap. 626, for the Eastern Boulevard; Chap. 137, the Charter of 1870; Chap. 833, amendments thereto; Chap. 385, the eight hour-law; Chap. 805, extending Fifty-second, Fifty-third and Fifty-fourth Streets.

The expenditures were for:

Construction Central Park.....	\$555,345 36
Maintenance do .....	337,584 46
Construction North End.....	7,7 06 79
Seventh Avenue Boulevard..	186,286 65
West Side.....	145 00
Mt. Morris Square.....	39,396 12
Avenue St. Nicholas.....	80,536 83
Sixth Avenue Boulevard....	278,117 47
Circle, Eighth Avenue and Fifty-ninth Street.....	15,781 25
Broadway Boulevard.....	674,224 74
Plaza, Fifth Avenue and Fifty-ninth Street.....	8,918 99
One Hundred and forty-fifth Street.....	7,222 94

Broadway widening .....	3,592 75
Harlem River improvement..	1,513 07
East Side improvement.....	4,097 29
Town of Yonkers.....	9,948 40
Town of West Farms.....	9,865 26
Museum and Observatory...	47,001 32
City Parks.....	430,087 15
Eighth Avenue grade.....	1,384 76
Adapting grades of Park to Eighth Avenue.....	22,834 53
Maintenance Museum and Observatory...	29,082 38
	<hr/>
	\$2,750,673 51

#### THE FIFTEENTH YEAR.

From 1st January, 1871, to 31st December, 1871.

The Commissioners were the same as at the close of the preceding year until 22d November, when Messrs. Sweeny and Hilton retired, and Messrs. Henry G. Stebbins and Frederick E. Church became Commissioners.

They continued the same work and commenced the improvement of Tenth Avenue and the Morningside Avenues.

The following laws were passed: Chapter 290, for the Museums of Art and of Natural History; Chapter 534, for the improvement of parts of Westchester County, and for bridges; Chapter 628, for the Military Parade Ground.

The expenditures were for:

Construction Central Park.....	\$1,096,138 30
Maintenance do. ....	457,910 99
Construction North End.....	3,117 10
Seventh Avenue Boulevard..	319,831 42
West Side.....	813 66

Avenue St. Nicholas.....	197,201	23
Manhattan Street.....	42,004	17
Sixth Avenue Boulevard....	288,211	16
Circle, Eighth Avenue and Fifty-ninth Street.....	13,159	13
Broadway Boulevard.....	687,274	02
Plaza, Fifth Avenue and Fifty-ninth Street.....	22,213	76
One Hundred and forty-fifth Street.....	27,695	01
Harlem River Improvement.	48,981	55
Town of Yonkers.....	22,791	27
Town of West Farms.....	27,022	10
Museum and Observatory...	117,469	45
Eighth Avenue grade.....	86,508	93
City Parks.....	855,102	12
Tenth Avenue.....	34,554	41
Morningside Avenue.....	1,571	39
“ at base.....	214	08
Maintenance Museum and Observatory...	55,305	99
Roads and Avenues.....	24,766	06
City Parks .....	110,253	80
	<hr/>	
	\$4,540,111	10

THE SIXTEENTH YEAR.

From 1st January, 1872, to 31st December, 1872.

The Commissioners were the same as in the preceding year, except that Mr. Stebbins retired from 28th May to 23d October, and Mr. Fred. Law Olmsted became Commissioner during that period; and that Mr. Dillon died on 26th November, and Mr. Blatchford became Commissioner on 3d December.

They continued the same works generally, and commenced on the Military Parade Ground, One hundred and fifty-fifth Street, the Museum of Art and that of Natural History.

The following laws were passed: Chap. 297, relative to Seventh Avenue Boulevard; Chap. 299, relative to Sixth Avenue Boulevard; Chapter 512, for the improvement of One hundred and fifty-fifth Street; Chap. 739, providing money; Chap. 842, and Section 7 of Chap. 872, transferring the control of roads and avenues to the Department of Public Works.

The expenditures were for :

Construction Central Park.....	\$828,519 43
Maintenance do. ....	326,966 60
Construction North End.....	6,544 40
Seventh Avenue Boulevard..	150,086 87
Avenue St. Nicholas.....	43,972 69
Manhattan Street.....	99,248 26
Sixth Avenue Boulevard....	4,371 36
Broadway Boulevard.....	259,780 33
One hundred and forty- fifth Street.....	323 00
Harlem River Improvement.	19,466 71
Town of Yonkers.....	12,628 53
Town of West Farms.....	14,513 53
East Side Improvement.....	39 59
Museum and Observatory...	3,906 27
Eighth Avenue grades.....	24,006 86
City Parks.....	327,922 40
Tenth Avenue.....	208,537,94
Morningside Avenue.....	85 27
do. at base.....	1,980 00
Parade Ground.....	163 00
One hundred and fifty- fifth Street.....	1,541 14

Maintenance Museum and Observatory...	51,300 30
Roads and Avenues.....	20,551 07
City Parks.....	80,926 04
Harlem River Bridges.....	3,226 56
Fireworks.....	8,903 00
	<hr/>
	\$2,499,511 15
Construction Museum of Art.....	1,312 99
Museum of Natural History.	16,033 85
	<hr/>
	\$2,516,859 99

### THE SEVENTEENTH YEAR.

From 1st January, 1873, to 31st December, 1873.

The Commissioners were the same as at the close of the preceding year, except that Mr. Fields retired on 13th January, and Mr. Salem H. Wales became a Commissioner on that day. The offices of all, except Mr. Stebbins, became vacant by the Charter, Chap. 335, on 1st May, 1873, and Messrs. Salem H. Wales, Philip Bissinger, David B. Williamson and Samuel Hall became Commissioners. They continued the same work, except the roads and avenues, and commenced work in the towns of Kingsbridge and Eastchester.

The following laws were passed : Chap. 335, the Charter of 1873 ; Chap. 757, amending the same ; Chap. 613, for annexation of part of Westchester Co. ; Chap. 756, providing money, and Chap. 850, in relation to Riverside Avenue.

The expenditures were for :

Construction Central Park.....	\$625,653 67
Maintenance Central Park.....	329,796 36
Construction North end.....	888 21

Avenue St. Nicholas.....	\$175 00
Broadway Boulevard.....	5 22
Harlem River Improvement....	9,711 43
Town of Yonkers.....	10,609 62
Town of West Farms.....	6,104 13
Museum and Observatory.....	777 35
City Parks.....	156,794 60
Parade Ground.....	123 04
Town of Kingsbridge.....	12,804 72
Suspension Bridge.....	315 96
Tunnel.....	1,904 18
Town of Eastchester.....	572 96
Maintenance Museum and Observatory.....	19,526 95
City Parks.....	67,740 36
Harlem River Bridges.....	8,048 18
Fireworks.....	9,598 97
Salaries, Expenses, &c.....	45,931 92
	<hr/>
	\$1,307,082 83
Construction Museum of Art.....	5,422 12
Museum of Nat. Hist.....	45,696 48
	<hr/>
	\$1,358,201 43

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#### THE EIGHTEENTH YEAR.

From 1st January, 1874, to 31st December, 1874.

The Commissioners were the same as in the preceding year, except that Mr. Hall retired on the 1st May, the number being reduced by law to four members, and that Mr. Wales retired on 1st June, and Mr. Thomas E. Stewart became Commissioner on the same day. They continued the same work, and commenced laying out the Twenty-third and Twenty-fourth Wards, the district annexed from Westchester County.

The following laws were passed : Chap. 300, reducing the number of Commissioners to four ; Chap. 329, relative to Twenty-

third and Twenty-fourth Wards ; Chap. 604, relative to North End of the island, and the Twenty-third and Twenty-fourth Wards ; Chap. 651, relative to the city of Yonkers.

The expenditures were for :

Construction Central Park.....	\$444,284	91
Maintenance do. ....	331,646	47
Construction City Parks.....	244,498	38
Town of Kingsbridge.....	2,416	38
Seawall at Battery .....	522	68
Laying out Twenty-third and Twenty-fourth Wards.....	53,056	71
Maintenance Museum and Observatory.....	13,905	49
City Parks.....	89,241	38
Harlem River Bridges.....	12,243	04
Fireworks .....	9,759	60
Gas bills 1872 and 1873.....	55,772	78
Twenty-third and Twenty-fourth Wards .....	39,647	25
	<u>\$1,296,995</u>	07
Construction Museum of Art.....	83,846	84
Museum of Nat. Hist.....	246,554	78
	<u>\$1,627,396</u>	69

#### THE NINETEENTH YEAR.

From 1st January, 1875.

The Commissioners were the same as at the close of the preceding year, except that Mr. Bissinger retired on 1st January, and Mr. Wm. R. Martin became a Commissioner on 2d January.

The work of the Department for 1875 is the same as that upon which expenditures were made in 1874, as above stated, except the town of Kingsbridge, which is now included in the 23d and 24th Wards.



The resources at the commencement of the year were as follows :

Balance of moneys appropriated for construction work, deducting work under contract . . .	\$66,541 79
Balance of moneys (\$1,000,000) appropriated for the Museum of Art, and for the Museum of Natural History, deducting work under contract . . . . .	335,261 16
Appropriation by the Board of Estimate and Apportionment for all maintenance work, and for the new work of surveying, &c., 23d and 24th Wards, including the \$30,000 for the Museums of Art and of Natural History . . . .	584,000 00

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SUMMARY.

From the preceding statements of yearly expenditure it appears :

I. That compared with the years 1869-72 the expenditures by the department have been greatly reduced.

II. The expenditures on the construction of the Museums of Art and of Natural History are not to be counted in the general expenditures of the department, as they are erected under special provisions of law.

III. The work of the department extends over as many subjects as at any time heretofore, except the working of roads and avenues.

IV. No new work has been authorized by law since 1871, except that which results from the annexation of the 23d and 24th Wards, and the department is not now initiating any new work, but carrying out previous undertakings.

**3d.—The proportion of cost borne by the City and by private property and the relative benefit.**

**I.—TO THE PRESENT TIME.**

In estimating the relation between the amounts that have been paid by the city and the amounts that have been assessed upon private property, toward the completion of the improvements required to fit the northern wards of the island for population, and the effect these expenditures have had upon the increase of the value of real estate there for the purposes of taxation, approximate measures have to be taken; yet they are generally accurate, and the allowances that ought to be made can be readily discerned.

Since the Central Park was undertaken, these new improvements have been made in the region between 40th and 155th streets, and the growth in value and population which has been influenced by them directly has been in the same region; but the area upon which the statistics are given is not coterminous.

The area of the 19th, 22d and 12th Wards, extending from Fortieth street to Kingsbridge, is the basis of the statistics upon taxation and population. The portion from 155th street to Kingsbridge should be excluded if it were practicable; and the portion between Fortieth and Fifty-ninth streets has grown from the natural increase of the city, as well as from the impulses given by the new improvements.

The area between 59th and 155th streets is the basis of the statistics of the expenditure on these improvements, paid by the city and by private property. The Broadway widening, below Fifty-ninth street, is included because of its importance; but the great mass of expensive work done on these streets before 1860 is not included.

The cost of these improvements has been borne as follows :

	By the City.	By Private Property.
1st. The cost of land taken for the public use as parks, avenues streets and boulevards. The Central Park, in 1856, and the others since 1860.— Table A. ....	\$13,654,661 91	\$17,296,475 99
2d. Assessments for street improvements, regulating, paving, sewerage, &c., since 1st January, 1860, between 59th and 155th sts.—Table B.	1,959,846 11	14,402,848 16
3d. The total cost of construction works and maintenance under the Park Commissioners and the Department of Parks.....	\$21,802,909 06	
Deducting the money spent on the down town parks, for construction (No. 26, p. 5.).....	\$1,810,417 82	
And deducting the money expended on boulevards and avenues, which is included in the item of assessments (2d.) above, (Nos. 6, 9, 10, 12, 14, 17, 18, 25 and 29, on pages 4 and 5.).....	4,827,862 73	
	\$6,637,780 55	
	15,165,128 51	
	\$30,779,636 53	\$31,709,324 15

The natural and immediate effect of the expenditure of sixty-two million dollars upon these improvements, has been to increase the value of the property in the vicinity. This increase has been beneficial to both the owners and to the city at large. To the owners, in increasing the market value of their property, and to the city, in increasing its assessed value for the purposes of taxation.

This benefit to the city has been received in the annual increase of taxation which has been exhibited in the successive annual reports of this department.

The increase in the Twelfth, Nineteenth and Twenty-second wards, above Fortieth street, beyond the rate of increase of



The discrimination in column V. has not been made heretofore in the reports of this department. It has been assumed that all the increase in these wards has been due to these improvements, but this discrimination produces a more exact result.

It shows that the city has received back in taxation \$24,994,731, on account of the \$30,779,626.53, which it has expended.

Besides this, the property in these three wards bears, and has borne its full share, in common with the property in the city below Fortieth street, of the whole sum the city has expended, whether it has been paid from taxation or remains accumulated as a part of the city debt. It bears, at present, about thirty per cent. of the taxation and debt.

The increase in the market value of property has been in its speculative or fluctuating value, but not in its productive value. Except in the area between Fortieth and Fifty-seventh streets, and north of Fifty-seventh street on the lines of Third and Madison avenues, but little of the property in these three wards has any productive value. Its speculative value depends on the completion of the sewerage, the construction of the leading avenues and streets, and other improvements which fit it for occupation, and delay in these improvements depreciates the value. Until they are completed the point of productive value cannot be reached.

At the present time, therefore, the city has expended on these improvements, as above stated (page 22), the sum of..... \$30,779,636 00  
 And received from an increase of taxation due to them..... 24,994,731 00

Leaving a net amount of outlay by the city, \$5,784,905 00

and it is receiving now, and in the future from this increase a revenue of not less than \$4,842,278 each year (see page 23).

The property owners have paid for these im-	
provements (page 22).....	\$31,709,324 15
The increased taxation.....	24,994,731 29
	<hr/>

Making a total of..... \$56,704,055 44  
and are bearing their proportion of the increase of the debt of the city that has arisen from its expenditures on these improvements.

This shows that in actual net outlay for these improvements the property owners, as compared with the city, have paid out ten for one, and that the outlay of the city will be nearly repaid to it in another year.

It does not diminish the force of these facts that some of the property in these wards has, during this period, been sold at a profit by certain persons who were the owners; because these facts and the comparison of expenditures bear upon the property as a mass, and upon the persons who succeed as owners to those who have sold, as well as to those who have continued owners from the outset. When one sells out at a profit, and another puts in his capital, the persons, but not the conditions, are changed.

## II. FOR THE COMING FIVE YEARS.

The works which are now authorized, or for which plans and studies have been made, from 59th to 155th streets, and which, if carried on, might be completed by this Department within the next five years, are the following. The cost is put upon them at a liberal estimate. This is a round statement; much of the work may be postponed or omitted:

Central Park constructions.....	\$750,000
Six gates in the southern part of the Central Park.	1,000,000
Combined walk, ride and drive, in Central Park....	500,000
Manhattan Square, and operations dependent thereon.....	700,000
Riverside Park and Avenue, after deducting amount to be assessed on private property.....	2,000,000
Morningside Park and Avenue, after deducting amount to be assessed on private property.....	600,000
Bridges on the Harlem River, below 155th street (not including the proposed Seventh avenue tunnel).....	500,000
To acquire title to new avenues laid out, but not yet taken.....	600,000
Completion of Museums of Art and Natural History on present plans, and necessary additions.....	800,000
	<hr/>
	\$7,450,000

It is assumed that street improvement work will be assessed upon private property.

Table A, showing the streets which have been opened, and Table B, showing the improvements that have been made upon them, justifies the following estimate; that in the area between Fifty-ninth and One hundred and fifty-fifth streets eighty per cent. of all the streets and avenues have been opened, and that on sixty per cent of them, the work of regulating, sewerage, paving, etc., has been completed. At the rates at which these openings and improvements have been paid for, the completion will cost as follows :

For street openings.....	\$800,000
For street improvements.....	11,200,000
	<hr/>
	\$12,000,000

If these works and openings should be prosecuted and finished within the coming five years, the above sum would be charged upon private property.

The city will receive for taxes, on the excess of valuations on the Nineteenth, Twenty-second and Twelfth wards, beyond the average increase of valuations of the rest of the city, for the next five years, if computed at the amount \$4,842,278 received in 1874, the sum of \$24,211,390.

But if these valuations increase for the next five years as they have for the past five years, the amount would be \$36,000,000.

If, therefore, these works should be carried forward to completion within the next five years, the respective accounts would stand as follows :

	BY THE CITY.	BY PRIVATE PROPERTY.
Paid prior to 1st January, 1875, see page 22.....	\$30,779,626 53	\$31,709,324 15
Repaid to city by owners by increase of taxes prior to 1st January, 1875, p. 23.....	24,994,731 29	24,994,731 29
	\$5,774,895 24	56,704,055 44
Paid for five years subsequent to 1st January, 1875, for Park improvements, &c., p. 26.....	7,450,000 00	
Paid for street openings and improvements, p. 26.....		12,000,000 00
	\$13,224,895 24	68,704,055 44
Repaid to city by owners by five years' increase of taxes at the rate of 1874, p. 27.....	24,211,390 00	24,211,390 00
Net gain to city over all outlay....	\$10,986,494 76	
Net cost to property.....		\$92,915,445 44



The result will be that the entire amount laid out by the city will be repaid to it and eleven million dollars besides, in the taxes it will receive from the increase in the valuations of the property benefited by the improvements.

That the city will possess in landed estate the 980 acres of the Central and the Riverside and Morningside Parks, which would be worth, at the estimated value of land in their vicinity, \$100,000,000, besides the great value to it of these parks in other respects.

It will also have a continual revenue from the increase of taxation.

The property owners will have paid for the direct improvement of their property, and to make it ready for occupation, the aggregate of ninety-three million dollars, and their property, so far as these improvements can make it so, will be ready for occupation and become productive.

#### THE EFFECT OF THESE IMPROVEMENTS TO INCREASE TAXATION.

The total assessed valuation of the land in the  
wards above Fortieth street is now..... \$245,431,175

The amount necessary to complete the works now authorized and in contemplation, as above stated, at \$7,450,000, is but 3 per cent. of the valuation, and is but little more than was gained to the city by the increase of taxation in the year 1874 alone.

The assessed valuations in these wards, since 1860, has increased very rapidly, as follows :

YEAR.	12TH WARD.	19TH WARD.	22D WARD.	TOTALS.
1860.	\$11,857,184	\$16,092,022	\$14,785,440	\$42,734,646
1861.	12,454,375	16,985,152	17,666,866	47,106,393
1862.	13,099,485	17,889,047	18,041,857	49,030,389
1863.	14,134,825	19,003,452	18,281,222	51,419,499
1864.	15,514,825	20,462,007	18,758,576	54,735,408
1865.	18,134,805	23,070,890	19,824,265	61,029,960
1866.	18,381,650	37,636,050	24,052,715	80,070,415
1867.	24,940,737	46,249,340	30,915,240	102,105,317
1868.	28,143,005	53,608,040	36,175,185	117,926,230
1869.	42,648,865	59,912,633	47,663,245	150,224,743
1870.	48,869,700	71,319,420	53,146,920	173,336,040
1871.	50,360,925	77,770,570	57,666,040	185,797,535
1872.	54,568,885	91,283,545	60,185,820	206,038,250
1873.	62,458,930	110,521,305	63,094,530	236,074,765
1874.	67,493,585	113,032,290	64,905,300	245,431,175

This increase has been maintained on the tax-books since 1870, notwithstanding the great depreciation in the market value of the property. The valuations have been increased 62 per cent. since 1869.

If it is maintained at the same percentage of increase year by year for the next five years as for the last fifteen, the aggregate valuations each year would be as follows :

1875.....	\$274,882,915
1876.....	313,366,523
1877.....	357,237,835
1878.....	407,251,132
1879.....	464,266,290

These valuations would be increased beyond the above amounts if, by preparing vacant land for occupation, houses, to any extent, were erected. If these houses had residents, contributing also to the payment of taxes on personal property, the receipts for taxes would be further increased.

In any aspect, the amount of revenue gained by the city from this increase of taxation will be very great, in proportion to the share it contributes toward the cost of these improvements.

It may be said that the completion of these improvements will not lead to the occupation of these up-town vacant wards, unless they are made accessible by rapid transit, and that the population will still migrate by the hundred thousand to New Jersey and Brooklyn, and thus escape taxation here; and this may be true. The injury bears, however, solely upon the property owner, whose property will remain unproductive. It will not bear on the city, for the tax assessors increase their valuations steadily without regard to this, and without regard to the decline in speculative values.

#### THE BENEFIT TO THE DOWN-TOWN OWNER.

The total amount of the valuation of real estate in 1874, was :

Upon the Wards down-town, below Fortieth Street.....	\$613,210,455
"        up-town, above        "        .....	245,431,175
	<hr/>
	\$858,641,175
And Twenty-third and Twenty-fourth Wards... \$22,906,365 00	
And of personal estate... .. 272,481,181 00	
	<hr/>
	295,387,546
	<hr/>
	\$1,154,029,176
Upon this there was raised by tax, at the rate of \$2.80 per cent....	\$32,812,817

The valuations up-town and down-town have, since 1860, been increasing at the following disproportionate rates :

	VALUATION SOUTH OF FORTIETH STREET.	RATE OF INCREASE.	VALUATION NORTH OF FORTIETH STREET.	RATE OF INCREASE.
1860	\$355,149,223		\$42,734,646	
1861	399,849,272	12½	47,106,393	10
1862	350,520,925	- 12½	49,030,389	4½
1863	350,767,883	..	51,419,499	5
1864	355,960,077	1½	54,735,408	6½
1865	366,330,924	3	61,029,960	11½
1866	398,922,669	9	80,070,415	31
1867	453,341,745	14	102,105,317	27½
1868	505,310,325	11½	117,926,230	15½
1869	533,906,026	5½	150,224,743	27½
1870	568,866,485	6½	173,336,040	15½
1871	583,494,715	2½	185,797,535	7
1872	591,110,415	1½	206,038,250	11
1873	600,718,165	1½	236,074,765	14½
1874	613,210,455	2	245,431,175	3½

The average rate of increase down-town each year, since 1860, has been 4½ per cent. ; that up-town, 14 per cent. ; and the valuations of the up-town wards were, in 1874, 28½ per cent. of the whole. If the rate of increase of the last fifteen years continues for the next five years, the result will be :

	VALUATION SOUTH OF FORTIETH STREET.	ESTIMATED AVERAGE RATE OF INCREASE.	VALUATION NORTH OF FORTIETH STREET.	ESTIMATED AVERAGE RATE OF INCREASE.
1875	\$639,282,893	4½	\$274,882,915	14
1876	666,352,416	4½	313,366,523	14
1877	694,682,383	4½	357,237,835	14
1878	724,206,384	4½	407,251,132	14
1879	754,985,158	4½	464,266,290	14

When the valuation of the up-town wards will be  $37\frac{1}{2}$  per cent. of the whole.

The only mode of relief for the burden of the city debt is, since the amount of annual expenditure cannot be diminished, to have a greater amount of property subjected to its taxation, not by arbitrary advances in valuation, but by real increase.

If the increase of valuations up-town goes on, and is justified by progress in the public works, the amount of property subjected to taxation will be increased, and there is no other way to do it.

If it does not, as may be the case, the valuations and taxes on down-town property must be increased.

It is of evident advantage to the owner of property down-town, that this rate of increase up-town should go on and be supported by solid increase of value.

The city debt is now, by the statement from the Finance	
Department of January 1, 1875.....	\$141,803,758*
Less Sinking Fund.....	\$26,823,788
And Assessment Bonds.....	20,851,000
	<u>\$47,674,788</u>
	\$94,428,970

In proportion to the valuation of 1874, this debt bears as follows :—

On Wards South of Fortieth Street—	On Wards North of Fortieth Street—
Valuations..... \$613,210,455 00	Valuations..... \$245,431,175 00
Proportion of debt... 67,302,213 55	Proportion of debt... 26,826,756 45

If this debt should remain the same, except the increase of \$7,450,000, for the improvements mentioned on page 26, and

the increase in 1879, in valuations should be as above stated, the debt would bear as follows :—

On Wards South of Fortieth Street—	On Wards North of Fortieth Street—
Valuations. . . . . \$754,985,158 00	Valuations. . . . . \$464,266,290 00
Proportion of debt.. 63,549,356 25	Proportion of debt.. 38,129,613 75

During the past few years of depreciation of value, the owner of up-town property, who has been paying large assessments to make it ready for settlement, has seen its valuation on the tax-books increase as rapidly as if this had been a season of prosperity; and the increase has relieved the owner of property down-town, where the valuations have remained nearly stationary. But there must be some basis for such an increase, if it is to be continued. The prosecution of these public improvements will supply it at small expense to the down-town property owner. It is the most effectual means to save him from the like increase of taxation, and to furnish a larger amount of property on which the taxation is laid, and thus lighten its burden.

The assessment bonds are not included in the above statement of debt, because the assessments collected should be applied to the payment of the bonds, and those which are not promptly paid, draw 12 per cent. interest. The proportion of assessments vacated is but small to the aggregate of assessments paid. If the assessment bonds were included in the amount of debt, the result would show a larger relative amount of debt on the wards above Fortieth Street.

#### THE REGION ABOVE 155TH STREET.

These estimates have been limited to the region between 59th and 155th street. They are in many cases approximate,

but exact enough to justify conclusions upon the policy of expending money on the up-town improvements.

The Fort Washington region, from 155th Street to Kingsbridge, and the district annexed from Westchester county, forming the 23d and 24th Wards, have not been considered in these statements, except that the Fort Washington region is a part of the 12th Ward, and is included in the tax valuations of that ward.

The statistics of these regions are not at hand, nor has so much work been done there. They are worthy of and will receive equally elaborate and independent treatment ; the investigations will support the same conclusion, that the amount spent by the city upon improvements there will be returned by increase of value and of taxation.

It is the province of this Department judiciously and economically to prosecute the improvements committed to their charge, and to set forth the results, as they bear on the city and on the owners of property, and as they promote its general prosperity and afford relief from its burden of debt. They are opportune at this time, because the Comptroller of the city, who until recently has been an officer of this Department, and has influenced its administration, and who, here and in his own office, has been and is familiar with the facts here presented, has, from his contemplation of them, reached the conclusion which he expressed in the resolution presented by him in the Board of Apportionment on the 4th February, 1875 :

*Resolved*, That instead of further prosecuting this class of improvements in the upper part of the city, most of which are of no present utility, and are a continued source of expense for repairs, and upon which at least \$15,000,000 have been expended in  $2\frac{1}{2}$  years, the public interests would be better served by devoting such moneys as the city has to expend to the repair and improvement of the streets in the lower part of the

city, now in such bad condition, and which are needed for daily use by throngs of people, and which are a constant necessity for the movement of persons and property."

This resolution referred to the work of this Department, and the work of the Departments of Public Works and of Docks. The attitude of the Comptroller, in opposing the further prosecution of the work of this Department, is in conflict with his course while he was a member of this Board, and with the conclusions which a consideration of these facts justify and require.

They furnish strong support for the desire of the property owners to have these public works prosecuted; and it becomes the duty of this department to go forward.

Respectfully submitted.

WM. R. MARTIN.

At a meeting of the Board of Commissioners of the Department of Public Parks, held on the 5th March, 1875, the foregoing communication was received and ordered to be printed as a document of the Board, and the following resolutions were unanimously adopted:

*Resolved*, That, in the opinion of this Board, the facts set forth in the communication presented by Commissioner Wm. R. Martin this day, and ordered to be printed as a document of the Board, are calculated not only to revive the recollection of the high estimation in which the work of the Department of Parks, carried forward for a long course of years, has been held, but also to reassure the public at large that the more recent expenditures have thus far been, and will, in their opinion, continue to be largely beneficial to the great and important interests of the city in the general advance of the value of property and large increase of revenue.

*Resolved*, That the works and improvements referred to in said document should be proceeded with at once, with a due regard to a wise economy.

WM. IRWIN,

*Secretary, D.P.P.*



**TABLE A.**

ASSESSMENTS for Opening Streets, Avenues, Public Parks and Places in the City of New York, between Fifty-ninth and One Hundred and Fifty-fifth Streets since 1860, except the Central Park in 1856.

LOCATION.	DATE OF CONFIRMATION.	AMOUNT OF ASSESSMENT.	
		On the City.	On Property.
Central Park.....	February 5, 1856.	\$3,886,176 45	\$1,657,590 00
Sixth avenue, from 129th street to Harlem river.....	August 7, 1860.		25,101 00
78th street, " 3d avenue to East river.....	" 20, "		5,887 00
81st " " 8th " to Broadway.....	" 20, "		3,793 00
75th " " 5th " to East river.....	February 6, 1861.		15,875 76
76th " " 5th " " ".....	" 6, "		14,047 48
96th " " Bloomingdale road to Hudson river.....	" 6, "		6,325 49
80th " " Broadway to Hudson river.....	March 19, "		2,870 00
82d " " 1st to 2d avenues.....	" 19, "		2,520 20
77th " " 5th avenue to East river.....	April 9, "		5,768 00
66th " " 8th " to Hudson river.....	May 22, "		5,191 50
76th " " 8th " " ".....	July 12, "		7,686 84
64th " " 3d to 5th avenues.....	" 23, "		5,478 00
81st " " 3d to 5th " ".....	" 30, "		3,645 96
82d " " 8th avenue to Hudson river.....	" 30, "		7,372 00
65th " " 3d to 5th avenues.....	October 5, "		3,536 90
Central Park Extension.....	April 21, 1862.	999,651 37	171,085 00
65th street, from 8th avenue to Hudson river.....	" 16, "		5,456 00
Madison avenue, from 42d to 86th street.....			977,000 00
74th street, " 5th avenue to East river.....	December 5, "		9,010 00
109th " " 3d " to Harlem river.....	Nov. 16, 1864.		3,509 12
Fifth avenue, " 135th " ".....	" 16, "		6,604 00
100th street " 8th avenue to Broadway.....	" 16, "		3,376 00

TABLE A—Continued.

LOCATION.	DATE OF CONFIRMATION.		AMOUNT OF ASSESSMENT.	
			On the City.	On Property.
135th street, from 4th avenue to 8th avenue.....	Nov.	16, 1864.		\$4,280 00
Seventh avenue widening, &c., from 110th street to Harlem river.....	June	24, 1865.	\$33,497 97	379,315 00
63d street, from 5th avenue to East river, and 8th avenue to Hudson river.....	Nov.	9, "		17,452 00
71st " " 5th " " and 10th " " .....	"	9, "		25,386 00
90th " " 3d " " and 8th " " .....	"	9, "		22,883 00
96th " " 5th " " and 8th " to Bloomingdale road.....	"	9, "		12,374 00
99th " " 5th " " and 8th " to Hudson river.....	"	9, "		17,124 00
133d " " 8th " to Harlem river, and 10th avenue to Hudson river.....	"	15, "		14,864 00
77th " " 8th " Hudson river .....	"	30, "		27,510 00
115th " " 10th " Harlem river.....	"	30, "		20,355 00
124th " " Harlem river to Hudson river.....	April	4, 1866.		24,202 00
141st " " Bloomingdale road to Harlem river.....	"	4, "		10,810 00
Fifth avenue, from 130th to 135th street.....	"	10, "		3,994 00
69th street, from 5th avenue to East river, and 8th avenue to Hudson river.....	"	17, "		30,445 00
137th " " 10th " Harlem river, and 11th avenue to Hudson river.....	June	21, "		18,354 00
122d " " Mount Morris square to Hudson river.....	"	21, "		12,084 00
66th " " 5th avenue to East river.....	Nov.	8, "		14,430 00
73d " " 3d " to 4th avenue.....	Dec.	7, "		3,522 00
126th " " 7th ave. to Lawrence st., and Manhattan st. to Bloomingdale road.....	Nov.	8, "		8,089 00
72d " " 4th avenue to 5th avenue, and 8th avenue to 10th avenue.....	February 4,	1867.		5,951 00
Avenue A " 59th to 79th street.....	July	18, "		21,866 00
Sixth avenue widening, &c., from 110th street to Harlem river.....	January 20,	1868.	14,000 00	418,367 00
Circle at 8th avenue, Broadway and 59th street.....	Feb.	28, "	279,752 51	266,067 00
72d street, from 4th avenue to East river.....	June	2, "		13,367 00
Boulevard, " 59th to 155th street.....	"	15, "	1,880,698 20	1,727,218 00

72d street from 10th avenue to Hudson river.....	Sept.	21,	1868.	\$852 00	\$7,145 00
82d " " 2d avenue to 5th avenue.....	Nov.	2,	"		5,889 00
114th " " 8th " to Hudson river.....	"	2,	"		14,735 00
67th " " 4th " to 5th avenue.....	"	9,	"		3,085 00
87th " " 3d " to East river.....	"	9,	"		6,650 00
87th " " 8th " to Hudson river.....	Feb.	17,	1869.		6,601 00
75th " " 8th " to ".....	"	10,	"	5,334 00	19,269 00
Madison avenue, from 86th to 120th street.....	March	18,	"		798,884 00
145th street, from Harlem river to Hudson river.....	"	22,	"		11,337 00
105th " " 3d avenue to Harlem river.....	May	15,	"		5,398 00
Plaza at 5th avenue, 58th and 59th streets.....	"	29,	"	169,166 50	364,364 00
Avenue St. Nicholas, from 110th to 155th street and Manhattan street widening, from Avenue St. Nicholas to 12th avenue.....	"	24,	"	21,943 00	967,525 26
113th street, from Harlem river to Hudson river.....	June	15,	"		28,889 00
Twelfth avenue, from 59th to 153d street.....	July	2,	"	196,865 00	257,350 00
127th street, from 2d avenue to 8th avenue.....	August	26,	"		13,243 00
104th, 105th and 106th streets, from 8th avenue to Boulevard.....	"	31,	"		11,028 00
68th street, from 8th avenue to Hudson river.....	Sept.	3,	"		8,886 00
112th street, from 2d avenue to Harlem river.....	August	26,	"		3,794 00
High Bridge Park.....	October	18,	"	241,811 00	241,811 00
111th street, from 8th avenue to Hudson river.....	Nov.	1,	"		15,246 00
126th " " 2d " 8th avenue.....	"	1,	"		8,933 00
147th " " Harlem river to Hudson river.....	"	1,	"		11,710 00
67th " " 8th avenue to Hudson river.....	"	17,	"		7,874 00
70th " " 8th " 10th avenue.....	"	17,	"		4,229 00
80th street, from Broadway to 9th avenue.....	"	17,	"		\$4,296 00
125th " " 8th avenue to Mount Morris square.....	"	17,	"		5,304 00
101st " " 5th " Harlem river.....	"	27,	"		7,449 00
118th " " 4th " 8th avenue.....	"	27,	"		9,210 00
81st " " 2d " East river.....	January	22,	1870.		5,528 00
Lexington avenue, from 66th to 97th street.....	April	25,	"		775,011 00
90th, 91st, 92d and 93d streets, from 4th avenue to 5th avenue.....	May	24,	"		11,078 00
89th street, from 5th avenue to East river.....	"	24,	"		9,078 00
112th " " 8th " Harlem river.....	March	10,	"		10,307 00
128th " " 6th " 8th avenue.....	"	25,	"		4,634 00

TABLE A—Continued.

LOCATION.	DATE OF CONFIRMATION.	AMOUNT OF ASSESSMENT.	
		On the City.	On Property.
131st street, from 8th avenue to Harlem river.....	March 25, 1870.		\$8,170 00
88th " " 5th " East river.....	April 20, "		13,192 00
101st " " 8th " Hudson river.....	May 10, "		6,669 00
73d " " 8th " ".....	June 27, "		8,218 00
78th " " 8th " ".....	" 27, "		6,195 00
104th " " 5th " Harlem river.....	" 27, "		8,352 00
134th " " 8th " ".....	" 27, "		8,401 00
95th " " 5th " East river.....	July, 11, "		7,086 00
98th " " 5th " ".....	" 11, "		7,558 00
121st " " 8th " Harlem river.....	" 14, "		11,113 00
103d " " 5th " ".....	" 14, "		7,920 00
117th " " 4th " 8th avenue.....	" 15, "		7,637 00
120th " " 6th " 8th ".....	" 15, "		5,455 00
Morningside Park and avenues, including New avenue, intermediate 8th and 9th avenue, from 100th street to Avenue St. Nicholas.....	" 28, "	\$823,499 40	896,693 00
97th street, from 5th avenue to East river.....	July 26, 1870.		7,189 00
146th " " 8th " Harlem river.....	" 26, "		9,134 00
Public place at 9th avenue Boulevard and 63d street.....	Dec. 22, "	76,500 00	76,980 00
122d street, from 10th avenue to New avenue.....	July 18, 1871.		88,893 00
123d " " 9th " 10th ".....			
127th " " Boulevard to New avenue.....	October 18, "		14,521 00
140th " " 350 feet east of 10th avenue to Hudson river.....			
106th and 107th streets, from 5th avenue to East river.....	Feb. 12, 1872.		14,090 00
Broadway widening, from 33d to 59th street.....	June 5, "	1,804,563 52	2,564,742 00
Public place at Boulevard, 9th avenue and 66th street.....	" 18, "	26,111 86	26,120 14

Riverside park and avenue and New avenue, intermediate Boulevard and Riverside	August	2, 1872.	\$3,069,481 80	\$3,104,479 00
avenue, from 116th to 127th street .....	October	7, " .....		6,344 45
100th street, from 4th to 5th avenues, and from 3d avenue to Harlem river. ....	"	7, " .....		7,024 22
102d " " 5th avenue to Harlem river. ....	March	10, 1873.		20,022 39
9 138th " " 8th " " .....	"	20, " .....		2,617 22
152d " " 9th " Hudson river. ....	"	10, " .....	351,568 33	352,390 00
Madison avenue, from 124th street to Harlem river. ....	"	29, " .....		28,739 08
68th street, from 5th avenue to East river. ....	May	14, " .....		12,209 88
136th " " 8th " Harlem river. ....	Sept.	3, " .....	65,000 00	123,494 00
110th street widening, from 250 feet east of 8th avenue to New road. ....	April	29, 1874.		34,762 00
11th avenue, from 59th street to Boulevard. ....	April	22, " .....		21,236 63
70th street, from 4th to 5th avenue. ....	"	28, " .....		7,425 98
93d " " 8th avenue to New road and 12th avenue to Hudson river. ....	May	4, " .....		5,213 16
92d street, from 8th avenue to New road and 12th avenue to Hudson river. ....	"	28, " .....		20,128 00
94th " " " " " " " " .....	"	28, " .....		8,714 00
95th " " " " " " " " .....	June	, " .....		4,086 33
97th and 98th streets, from 8th avenue to Boulevard. ....			\$13,654,661 91	\$17,296,475 99
Total. ....				

**TABLE B.**

ASSESSMENTS for Street Improvements in the City of New York, between Fifty-ninth and One Hundred and Fifty-fifth streets, from January 1st, 1860, to December 31st, 1874

LOCATION OF IMPROVEMENT.	DESCRIPTION OF IMPROVEMENT.	DATE OF CONFIRMATION.	AMOUNT OF ASSESSMENT.	
			On the City.	On Property.
85th street, between 2d and 3d avenues.....	Curb, gutter and flagging.....	January 30, 1860.		\$1,139 27
2d avenue, between 77th and 86th streets.....	“ “ “ “.....	March 22, “.....		5,193 13
Lexington avenue, between 57th and 66th streets.....	Regulating and grading.....	“ 28, “.....		14,533 36
61st street, between 2d and 3d avenues.....	Sewer.....	“ 28, “.....		3,971 39
2d and 3d avenues, between 79th and 80th streets.....	Filling.....	June 4, “.....		1,059 30
117th street, between Avenue A and 3d avenue.....	Regulating and grading.....	August 3, “.....		4,262 52
119th “ “ “ “.....	Curb, gutter and flagging.....	October 3, “.....		2,804 44
122d street, between 2d and 3d avenues.....	Curb and gutter.....	“ 3, “.....		312 87
5th avenue, between Mt. Morris sq. and 125th street..	Curb, gutter and flagging.....	“ 3, “.....		361 73
3d avenue, between 61st and 66th streets.....	Sewer.....	“ 6, “.....		4,994 88
128th street, between 4th and 5th avenues.....	Curb, gutter and flagging.....	“ 22, “.....		689 28
120th “ between 3d avenue and East river.....	Sewer.....	“ 31, “.....		13,366 82
118th “ at 2d avenue.....	Crosswalk.....	Dec'r 19, “.....		388 02
118th “ at 1st avenue.....	“.....	“ 19, “.....		423 81
118th “ at Avenue A.....	“.....	“ 19, “.....		423 37
130th “ between 3d and 4th avenues.....	Regulating and grading.....	January 3, 1861.	\$345 83	3,462 85
71st “ “ “ “.....	Reg., grad., curb, gutr. and flag.	March 9, “.....		4,010 86
88th “ “ 4th and 5th avenues.....	Curb, gutter and flag.....	“ 13, “.....		2,179 49
2d, 3d and 4th avenues, at 79th to 85th streets.....	Crosswalks.....	“ 18, “.....		8,512 87
84th street, between 3d and 4th avenues.....	Sewer.....	May 22, “.....		7,426 72
127th street, at 5th avenue.....	Crosswalk.....	“ 22, “.....		215 20
4th avenue, between 129th and 133d streets.....	Reg., grad., curb., gutr. and flag.	“ 22, “.....		3,175 37

89th street,	"	3d and 5th avenues.....	Regulating and grading.....	"	22,	"	3,765	73
62d	"	8th and 9th avenues.....	"	"	22,	"	2,965	55
116th	"	3d avenue and Harlem river.....	Curb, gutter and flag.....	"	22,	"	2,722	13
121st	"	at 1st and 2d avenues.....	Crosswalks.....	"	22,	"	717	61
6th avenue, between	"	112th and 125th streets.....	Curb, gutter and flag.....	June	18,	"	2,887	91
80th street,	"	5th avenue and East river.....	Regulating and grading.....	July	1,	"	35,257	01
125th	"	4th and 5th avenues.....	Sewer.....	"	11,	"	3,753	96
First avenue,	"	109th and 123d streets.....	Regulating and grading.....	August	9,	"	17,721	66
112th street,	"	3d and 4th avenues.....	Reg., grad., curb., gutr. and flag.....	Sept'r	4,	"	1,817	89
9th avenue,	"	53d and 64th streets.....	Regulating and grading.....	"	4,	"	24,629	04
3d	"	93d and 110th streets.....	Curb, gutter and flag.....	"	18,	"	9,824	94
3d	"	84th and 86th streets, &c.....	Sewer.....	"	27,	"	41,775	69
60th street,	"	9th and 10th avenues.....	Reg., grad., curb., gutr. and flag.....	"	27,	"	6,342	98
90th	"	3d and 4th avenues.....	Curb, gutter and flag.....	October	9,	"	1,621	90
88th	"	"	"	"	9,	"	1,852	06
125th	"	3d avenue and Harlem river.....	Sewer.....	"	15,	"	6,758	75
121st	"	"	Flagging.....	Nov'r	11,	"	1,067	41
Broadway, at 83d street.....			Filling.....	Dec'r	16,	"	917	31
86th street, between	"	3d and 4th avenues.....	Sewer.....	January	22, 1862.		5,820	93
84th	"	4th and 5th avenues.....	Reg., grad., curb., gutr. and flag.....	"	31,	"	1,109	28
2d avenue,	"	79th and 86th streets.....	Sewer.....	"	31,	"	15,454	00
Broadway,	"	59th and 60th streets.....	"	"	31,	"	3,020	94
8th avenue,	"	59th and 82d streets.....	Regulating and grading.....	May	22,	"	68,861	58
129th street	"	3d and 5th avenues.....	Sewer.....	Sept'r	22,	"	9,863	54
92d	"	2d and 4th avenues.....	Reg., grad., curb., gutr. and flag.....	Dec'r	6,	"	8,930	60
61st	"	2d avenue and East river.....	Regulating and grading.....	"	11,	"	16,773	46
4th avenue,	"	71st and 79th streets.....	"	February	4, 1863.		44,179	87
78th street,	"	3d avenue and East river.....	"	"	4,	"	18,076	86
122d	"	at Avenue A, 1st and 2d avenues.....	Crosswalks.....	"	13,	"	883	84
84th	"	between 8th avenue and Broadway.....	Regulating and grading.....	"	18,	"	23,757	66
5th avenue,	"	61st and 86th streets.....	Reg., grad., curb., gutr. and flag.....	March	4,	"	79,553	27
3d avenue,	"	73d and 79th streets.....	Sewer.....	April	13,	"	13,196	50
110th street,	"	2d and 6th avenues.....	Reg. grad. curb. gut. and flag.....	"	13,	"	16,276	38
117th	"	3d and 4th ".....	"	"	13,	"	4,945	26
3d avenue,	"	86th and 110th streets.....	Regulating and grading.....	May	2,	"	47,328	32
61st street,	"	3d and 5th avenues.....	"	Sept'r	7,	"	23,725	03

TABLE B—Continued.

LOCATION OF IMPROVEMENT.	DESCRIPTION OF IMPROVEMENT.	DATE OF CONFIRMATION.	AMOUNT OF ASSESSMENT.	
			On the City.	On Property.
79th and 80th streets, between 2d and 3d avenues....	Filling.....	October 6, 1863.		\$2,042 19
61st street, between 2d avenue and Avenue A.....	Curb, gutter and flagging.....	" 6, "		761 83
118th " " 1st avenue and Avenue A. ....	Flagging.....	" 30, "		115 07
84th " " 3d and 4th avenues.....	Curb, gutter and flagging.....	Dec'r 4, "		1,158 20
129th " " 5th and 6th " .....	Flagging .....	" 4, "		194 80
125th " " 3d avenue and Harlem river...	" .....	" 4, "		1,640 71
80th " " 3d and 4th avenues.....	Curb, gutter and flagging.....	" 4, "		2,949 73
114th " " 3d avenue and Avenue A.....	" .....	Nov'r 17, "		274 33
1st avenue, " 109th and 118th streets.....	Sewer.....	Dec'r 15, "		12,505 78
3d " " 69th and 73d " .....	" .....	" 28, "		9,914 96
93d street, " 3d and 4th avenues .....	Curb, gutter and flagging.....	January 13, 1864		1,855 43
3d avenue, at 106th, 107th, 108th and 109th streets...	Crosswalks.....	March 4, "		2,340 90
1st avenue, between 59th and 91st streets.....	Regulating and grading.....	" 15, "		101,433 37
4th " " 126th and 127th " .....	Flagging .....	May 25, "		161 55
74th street, " 2d and 3d avenues .....	Curb, gutter and flagging.....	" 6, "		1,135 04
117th " " 3d avenue and East river.....	" " " .....	" 6, "		4,155 66
81st " " 2d and 3d avenues, &c.....	" " " .....	" 6, "		474 14
125th " " 3d and 4th " .....	Flagging .....	" 20, "		304 35
8th avenue, " 114th and 125th streets.....	Regulating and grading .....	" 27, "		13,237 81
70th street, " 10th avenue and Hudson river..	" .....	June 15, "		3,061 02
112th " " 2d and 3d avenues.....	Reg., grad., curb., gut. and flag..	" 15, "		1,166 19
112th and 114th streets, bet. 2d av. and Harlem river	Filling.....	" 15, "		1,613 01
84th street, between 8th avenue and Broadway.....	Curb, gutter and flagging.....	" 29, "		7,359 46
94th " " 4th and 5th avenues.....	Regulating and grading .....	" 29, "		4,035 22
Avenue A, " 116th and 122d streets.....	Curb, gutter and flagging.....	August 5, "		2,386 10
62d street, " 5th and Lexington avenues.....	Regulating, grading, &c.....	Nov'r 18, "		28,940 00





TABLE B—Continued.

LOCATION OF IMPROVEMENT.	DESCRIPTION OF IMPROVEMENT.	DATE OF CONFIRMATION.	AMOUNT OF ASSESSMENT.	
			On the City.	On Property.
61st street, between 2d avenue and East river, &c..	Sewer.....	April 17, 1865.		\$17,816 79
60th " " 1st and 2d avenues.....	Curb, gutter and flag.....	October 2, "		1,504 92
62d " " 9th and 10th avenues.....	" " ".....	" 13, "		2,583 32
78th " " 2d and 3d avenues.....	" " ".....	" 13, "		1,372 54
3d avenue, " 56th and 86th streets.....	Paving.....	Nov'r 2, "		122,051 46
78th street, " 1st and 2d avenues.....	Filling.....	" 14, "		2,605 98
77th street, " 3d and 4th avenues.....	Regulating and grading.....	" 14, "		2,880 60
Lexington avenue, between 57th and 86th streets....	Curb, gutter and flag.....	Dec'r 29, "		6,663 22
129th street, between 10th avenue and Hudson river.	Flagging.....	" 29, "		2,178 67
60th " " Lexington and 5th avenues....	Curb, gutter and flag.....	" 29, "		6,214 47
80th " " 3d avenue and East river.....	" " ".....	" 29, "		7,788 47
2d avenue, " 123d and 125th streets.....	Sewer.....	" 29, "		2,827 51
Avenue A, at 117th and 119th streets.....	Crosswalks.....	" 29, "		4,803 06
1st avenue, at 119th street.....				
2d avenue at 123d, 124th and 125th streets.....				
122d street, between 3d and 4th avenues.....	Regulating, grading, &c.....	" 14, "		7,469 83
61st " " 3d avenue and East river.....	Paving.....	March 21, 1866.		16,964 48
1st avenue, " 111th and 125th streets.....	Curb, gutter and flag.....	" 21, "		7,255 87
132d street, " 5th and 7th avenues.....	Regulating, grading, &c.....	" 21, "		10,137 49
125th " " 5th and 10th avenues.....	Sewer.....	" 21, "		25,941 91
85th " " 3d and 4th avenues.....	Flagging.....	April 25, "		541 07
71st " " 3d and 4th avenues.....	Paving.....	" 25, "		7,095 26
125th " " 8th avenue and Manhattan street.	Flagging.....	" 25, "		1,496 10
9th avenue, " 125th and 126th streets.....	Sewer.....	" 25, "		3,408 08
78th street, " 3d and 4th avenues.....	" " ".....	May 22, "		8,285 70
77th " " 2d and 4th avenues.....	Regulating, grading, &c.....	June 27, "		10,575 34

1st avenue, "	86th and 89th streets. ....	Curb and gutter. ....	July 25, "	1,224 08
1st "	86th and 89th streets. ....	Flagging. ....	August 25, "	1,032 57
70th street, from 3d	avenue 300 feet west. ....	Sewer. ....	" 28, "	2,945 37
100th "	8th avenue to Broadway. ....	Regulating, grading, &c. ....	Sept'r 18, "	18,002 50
4th avenue, between	59th and 60th streets. ....	Sewer. ....	October 5, "	26,723 12
128th street, "	3d and 4th avenues. ....	" " " " " " " " " " " " " "	" 5, "	5,692 14
129th "	5th and Eighth avenues. ....	Flagging. ....	Nov'r 14, "	1,846 81
82d "	3d and 4th avenues. ....	Sewer. ....	" 24, "	15,342 74
125th "	2d and 3d avenues. ....	Filling. ....	" 24, "	898 31
1st avenue, "	61st and 62d streets, &c. ....	Sewer. ....	" 24, "	8,942 57
79th street, "	5th avenue and East river. ....	Paving. ....	Dec'r 26, "	62,952 33
119th "	3d and 4th avenues. ....	Regulating, grading, &c. ....	" 26, "	3,921 83
2d avenue, "	61st and 86th streets. ....	Curb, gutter and flag. ....	" 26, "	10,596 49
87th street, "	3d and 4th avenues. ....	Flagging. ....	January 26, 1867. "	914 20
119th "	2d and 3d avenues. ....	" " " " " " " " " " " " " "	March 7, "	306 46
128th "	2d and 3d avenues, and 3d ave- } nue, bet. 128th and 130th sts. }	Curb, gutter and flag. ....	" 7, "	1,052 73
128th "	3d and 6th avenues. ....	" " " " " " " " " " " " " "	" 7, "	2,993 30
2d avenue, "	125th and 128th streets. ....	" " " " " " " " " " " " " "	" 7, "	746 94
78th street, "	1st and 2d avenues. ....	" " " " " " " " " " " " " "	" 7, "	1,841 13
92d "	8th ave. and Bloomingdale Road. ....	Regulating and grading. ....	" 7, "	7,264 28
110th "	6th and 9th avenues. ....	" " " " " " " " " " " " " "	" 7, "	24,107 89
86th "	3d and 5th avenues. ....	Regulating, grading, &c. ....	" 7, "	8,839 92
83d "	8th and 10th avenues. ....	" " " " " " " " " " " " " "	" 7, "	6,094 39
129th, 130th and 131st sts., bet. 10th av. and Hud. river	60th street, between Broadway and 9th avenue. ....	Sewer. ....	" 7, "	32,669 43
3d avenue, "	110th and 120th streets. ....	Flagging. ....	" 7, "	7,668 32
78th street from Madison avenue east. ....		Sewer. ....	" 7, "	1,752 15
1st avenue, between 84th and 86th streets. ....		" " " " " " " " " " " " " "	" 7, "	7,366 91
118th street, between 3d and 4th avenues. ....		Regulating, grading, &c. ....	" 23, "	18,926 63
114th "	3d and 4th avenues. ....	" " " " " " " " " " " " " "	" 23, "	4,624 05
77th "	5th and Madison avenues. ....	" " " " " " " " " " " " " "	" 23, "	6,323 10
2d avenue, at 74th street. ....		Culvert. ....	" 7, "	8,518 76
1st avenue, between 61st and 66th streets. ....		Curb, gutter and flag. ....	" 23, "	3,089 00
62d street, "	3d and 5th and avenues. ....	Flagging. ....	April 1, "	4,156 32
				978 50

TABLE B—Continued.

LOCATION OF IMPROVEMENT.	DESCRIPTION OF IMPROVEMENT.	DATE OF CONFIRMATION.	AMOUNT OF ASSESSMENT.	
			On the City.	On Property.
121st street, between 2d and 3d avenues.....	Fencing.....	April 1, 1867.		\$109 52
5th avenue, " 79th and 89th streets.....	Sewer.....	" 1, "		43,536 28
3d " " 109th and 129th streets.....	Paving.....	" 1, "		94,292 04
Lexington avenue, between 59th and 66th streets.....	Sewer.....	" 1, "		37,083 24
130th street, between 4th and 5th avenues.....	Regulating, grading, &c.....	May 8, "		2,158 13
123d " " Avenue A and 4th avenue.....	" " ".....	" 8, "		4,827 22
8th avenue, " 102d and 114th streets.....	Regulating and grading.....	" 27, "		31,347 58
8th " " 125th and 129th streets.....	Regulating, grading, &c.....	June 5, "		4,079 00
113th street, " 3d and 4th avenues.....	Curb, gutter and flag.....	July 10, "		2,618 53
3d avenue, " 65th and 79th streets.....	Flagging.....	Sept'r 6, "		3,223 33
9th " " 125th and 126th streets.....	Regulating, grading, &c.....	" 6, "		4,415 69
90th street, " 9th avenue and Broadway.....	" " ".....	" 6, "		12,540 19
83d " " 3d and 4th avenues, &c.....	Sewer.....	" 6, "		18,143 23
84th " " 3d and 4th avenues, &c.....	Paving.....	" 6, "		9,290 76
1st avenue, " 74th and 79th streets, &c.....	Sewer.....	October 10, "		23,603 32
92d street, " 1st and 2d avenues.....	Curb, gutter and flag.....	" 10, "		2,270 21
129th " " 6th and 7th avenues.....	Sewer.....	" 10, "		5,980 79
125th " " 3d avenue and Harlem river.....	Curb and gutter.....	Nov'r 12, "		1,404 28
73d " " 3d and 5th avenues.....	Curb, gutter and flag.....	" 12, "		2,267 47
3d avenue, " 104th and 105th streets.....	Crosswalks.....	" 12, "		941 27
92d street, " 3d avenue and East river.....	Paving.....	January 10, 1868.		20,715 14
74th " " 1st and 2d avenues.....	Regulating, grading, &c.....	" 15, "		2,481 63
129th " " 3d and 8th avenues.....	Flagging.....	" 15, "		751 36
3d avenue, " 127th and 128th streets.....	" " ".....	" 15, "		680 46
129th street, at Broadway, 10th, 11th and 12th aves.....	Crosswalks.....	" 15, "		1,633 90
130th " between 5th and 6th avenues.....	Sewer.....	Feb'y 20, "		4,821 00

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127th " " 3d and 4th avenues.....	Curb, gutter and flag.....	Feb'y	20,	"	.....	381	38
77th " " 1st and 2d avenues.....	Regulating and grading.....	April	6,	"	.....	10,932	40
125th " " 1st and 8th avenues.....	Flagging.....	"	6,	"	.....	3,637	90
73d " " 3d and 5th avenues.....	Paving.....	May	12,	"	.....	19,558	04
65th " " 3d and 5th avenues.....	Regulating and grading.....	"	12,	"	.....	24,245	53
75th and 76th streets, between 3d and 4th avenues...	Sewer.....	"	12,	"	.....	26,351	94
3d and 2d avenues, bet. 116th and 120th streets, &c.	Sewers.....	"	12,	"	.....	22,201	41
77th street, between 7th and 9th avenues.....	".....	June	26,	"	.....	12,617	82
74th " " 5th avenue and East river.....	".....	May	15,	"	.....	114,077	66
60th, 61st and 62d streets, bet. 4th and 5th avenues..	".....	Sept'r	17,	"	.....	45,067	39
124th street, between 5th and 6th avenues.....	".....	"	17,	"	.....	4,309	74
128th " " 4th and 5th avenues.....	".....	"	17,	"	.....	4,766	66
92d " " 4th and 5th avenues.....	Regulating, grading, &c.....	"	17,	"	.....	5,779	28
122d " " 2d avenue and Harlem river...	" " ".....	"	17,	"	.....	5,364	05
124th " " 1st and 8th avenues.....	" " ".....	"	17,	"	.....	14,178	20
81st " " 2d and 3d avenues.....	Sewer.....	"	17,	"	.....	7,075	94
2d avenue, at 122d street.....	Basins.....	Oct'r	28,	"	.....	646	14
65th street, between 8th avenue and Hudson river...	Regulating and grading.....	"	23,	"	.....	53,225	68
63d " " 8th and 9th avenues.....	Regulating, grading, &c.....	Nov'r	25,	"	.....	4,763	49
128th " " 5th and 6th avenues.....	Sewer.....	"	25,	"	.....	3,938	58
130th " " at 5th avenue.....	Crosswalks.....	"	25,	"	.....	805	39
Madison avenue, between 59th and 72d street.....	Regulating, grading, &c.....	Dec'r	17,	"	.....	67,693	85
1st avenue, 124th street and 3d avenue, &c.....	Sewer.....	January	27, 1869.	"	.....	12,760	25
2d avenue, between 120th and 125th street, &c.....	".....	"	27,	"	.....	19,012	60
85th, 86th and 87th streets, between 4th and 5th aves.	".....	"	27,	"	.....	25,488	05
1st avenue, between 120th and 121st streets, &c.....	Sewer.....	"	27,	"	.....	3,844	20
2d " " 128th and 129th streets.....	Regulating, grading, &c.....	"	27,	"	.....	2,595	62
62d street, " Broadway and 9th avenue.....	" " ".....	"	27,	"	.....	1,873	89
77th " " 4th and Madison avenues.....	" " ".....	"	27,	"	.....	11,842	27
70th " 10th avenue to 75th street, &c.....	Sewer.....	February	1,	"	.....	65,073	76
61st " between 3d and 5th avenues.....	Curb, gutter and flag.....	"	9,	"	.....	6,481	67
74th and 79th streets, between 4th and 5th aves., &c.	Sewer.....	"	24,	"	.....	72,181	07
3d avenue, between 87th and 88th streets, &c.....	".....	"	24,	"	.....	17,932	30
83d and 84th streets, between 4th and 5th avenues...	".....	"	24,	"	.....	20,866	61
4th avenue, between 59th and 62d streets, &c.....	".....	"	24,	"	.....	20,130	24



115th and 121st streets, bet. Ave. A and 4th ave., &c.	"	"	8,	"	26,855	88
4th avenue, between 132d street and Harlem river	"	"	8,	"	15,452	05
63d and 64th streets, between 4th and 5th avenues	"	"	8,	"	59,613	85
124th street, between 5th and 6th avenues	Paving	Dec'r	15,	"	11,605	33
66th " " 3d and 5th avenues	Regulating, grading, &c.	"	15,	"	17,299	93
64th " " 3d and 5th "	Curb, gutter and flag	January	10,	1870.	5,353	72
61st " " 2d and 3d "	"	"	10,	"	1,050	42
115th, 116th and 117th streets, bet. 3d and 4th aves.	Sewer	"	10,	"	9,280	28
10th avenue, between 59th and 61st streets	"	"	10,	"	31,536	41
122d and 123d streets, between 3d and 4th avenues	"	"	10,	"	18,834	35
79th and 86th " bet. Ave. A and 3d ave., &c.	"	"	10,	"	80,872	56
114th street, between 2d avenue and Harlem river	Regulating, grading, &c.	"	27,	"	4,938	83
131st " " 5th and 6th avenues	Sewer	March	7,	"	6,604	30
122d " " 2d and 3d "	Concrete pavement	"	7,	"	9,173	20
Avenue A, " 85th and 89th streets	Regulating, grading, &c.	"	7,	"	1,781	20
2d avenue, " 92d and 108th "	"	"	7,	"	31,808	91
71st street, " 8th and 10th avenues	Sewer	"	28,	"	36,348	41
123d " " 3d ave. and Mount Morris sq.	Regulating, grading, &c.	"	28,	"	27,113	83
Between 59th and 65th streets, 4th and 5th avenues	Drains	May	3,	"	4,058	37
70th street, between 3d and 4th avenues	Paving	"	3,	"	12,574	71
80th " " Madison and 5th avenues	Regulating, grading, &c.	"	3,	"	2,078	96
127th " " 3d and 4th avenues	Sewer	"	3,	"	5,982	51
4th avenue, at 130th and 131st streets	Crosswalks	"	3,	"	1,926	43
5th " 131st and 132d streets	"	"	3,	"	964	63
112th, 113th and 114th sts., east and west of 3d ave.	Sewers	June	30,	"	14,509	68
2d avenue, between 71st and 74th streets, &c.	Sewers	"	30,	"	41,345	58
77th and 80th sts., between 3d and 4th avenues, &c.	"	"	30,	"	39,170	66
129th street, between 10th avenue and Manhattan st.	"	"	30,	"	7,236	92
8th avenue, " 125th and 129th streets	Crosswalks	"	30,	"	1,663	92
4th " " 78th and 79th streets, &c.	Sewers	August	15,	"	29,846	29
60th street, " Lexington and 5th avenues	Paving	Sept'r	29,	"	18,450	67
8th avenue, at 125th street	Crosswalks	"	29,	"	1,662	43
126th, 132d and 133d sts., between 5th and 6th avs., &c.	Sewers	Nov'r	7,	"	21,985	40
3d avenue, between 86th and 110th streets	Paving	"	7,	"	142,345	38
66th street, " 10th avenue and Hudson river	Regulating and grading	"	7,	"	10,648	21

TABLE B—Continued.

LOCATION OF IMPROVEMENT.	DESCRIPTION OF IMPROVEMENT.	DATE OF CONFIRMATION.	AMOUNT OF ASSESSMENT.	
			On the City.	On Property.
111th street, between 2d and 3d avenues . . . . .	Regulating, grading, &c. . . . .	Nov'r 7, 1870.		\$3,274 97
121st street, " 3d avenue and Mount Morris sq. . . . .	" " " " . . . . .	" 7, "		12,576 16
69th street, " 3d and 4th avenues . . . . .	" " " " . . . . .	" 7, "		5,734 58
77th street, " 8th and 9th avenues . . . . .	" " " " . . . . .	" 7, "		65,333 58
Madison av., " 72d and 86th streets . . . . .	" " " " . . . . .	" 7, "		56,332 27
64th street, " 3d and 5th avenues . . . . .	Paving . . . . .	Dec'r 23, "		26,099 35
64th " " 8th avenue and Hudson river . . . . .	Regulating and grading . . . . .	" 23, "		47,147 09
79th and 88th streets, between 4th and 5th avs., &c. . . . .	Sewers . . . . .	" 23, "		96,714 04
2d avenue, between 86th and 90th streets, &c. . . . .	" " " " . . . . .	" 23, "		29,431 73
66th street, " 3d and 5th avenues . . . . .	Paving . . . . .	" 23, "		28,169 39
4th avenue, " 62d and 70th streets, &c. . . . .	Sewer . . . . .	" 23, "		37,523 11
5th " " 59th and 90th streets . . . . .	Nicholson pavement . . . . .	" 23, "		106,215 39
61st street, " 3d and 5th avenues . . . . .	Paving . . . . .	January 9, 1871.	\$106,215 38	23,665 36
5th avenue, " 86th and 90th streets . . . . .	Curb, gutter and flag . . . . .	" 9, "		5,599 12
Avenue A, " 61st and 71st streets, &c. . . . .	Sewers . . . . .	" 9, "		54,030 84
78th street, " 1st avenue and Avenue A . . . . .	Regulating, grading, &c. . . . .	" 9, "		3,477 48
121st " " " " " " . . . . .	Sewer . . . . .	February 4, "		2,710 05
126th " " 3d and 5th avenues . . . . .	" " " " . . . . .	" 4, "		11,547 74
78th " " 1st and 5th streets . . . . .	Paving . . . . .	" 4, "		48,778 72
3d avenue, at 91st street . . . . .	Basin . . . . .	" 4, "		1,000 00
5th " " 74th street . . . . .	" " " " . . . . .	" 4, "		1,207 17
Broadway, " Manhattan street . . . . .	" " " " . . . . .	" 4, "		840 00
63d street, between 3d and Lexington avenues . . . . .	Paving . . . . .	April 27, "		6,354 59
3d avenue, " 129th and 130th streets . . . . .	" " " " . . . . .	" 27, "		8,079 61
77th st., " 5th and Madison avenues . . . . .	" " " " . . . . .	" 27, "		5,676 70



65th " " 4th and 5th avenues.....	Sewer.....	"	27,	"	6,013	28
67th and 68th streets, at 4th and 5th avenues.....	".....	"	27,	"	13,188	46
81st street, at 8th and 9th avenues, &c.....	".....	"	27,	"	48,780	51
1st avenue, " 121st and 124th streets.....	".....	"	27,	"	3,910	76
Broadway, " 129th and 130th streets.....	".....	"	27,	"	2,424	61
72d street, " 3d and 4th avenues.....	".....	"	27,	"	64,694	37
1st avenue, " 110th street.....	Crosswalk.....	"	27,	"	564	04
1st " " 113th street.....	".....	"	27,	"	888	05
1st " " 112th street.....	".....	"	27,	"	442	01
72d street, between 2d and 3d avenues.....	Curb, gutter and flag.....	"	27,	"	3,332	93
65th " " 3d and 5th avenues.....	" " ".....	"	27,	"	8,369	17
5th avenue, " 69th and 71st streets.....	" " ".....	"	27,	"	11,087	65
80th street, " 11th avenue and Boulevard.....	Regulating, grading, &c.....	"	27,	"	6,657	84
62d " " 1st and 5th avenues.....	Paving.....	"	27,	"	47,526	37
5th avenue, " 124th and 130th streets.....	Wood pavement.....	"	27,	"	45,246	70
127th street, " 5th and 6th avenues.....	Sewer.....	May	4,	"	5,708	71
72d " " 3d and 4th avenues.....	Regulating, grading, &c.....	"	4,	"	11,894	13
1st avenue, at 111th, 112th and 113th streets.....	Crosswalks.....	June	2,	"	2,817	69
125th street, at 6th avenue.....	Basins.....	"	2,	"	3,337	93
125th " " 7th avenue.....	".....	"	2,	"	741	02
111th " between 1st and 4th avenues.....	Sewer.....	"	2,	"	6,558	15
87th " " 1st and 2d avenues.....	Curb, gutter and flag.....	"	2,	"	762	61
69th " " 8th avenue and Boulevard.....	Regulating, grading, &c.....	"	2,	"	32,103	97
9th avenue, " Broadway and 86th street.....	" " ".....	"	2,	"	108,428	93
74th street, " 5th avenue and East river.....	" " ".....	"	2,	"	56,667	95
5th avenue, between 89th and 108th streets.....	Sewer.....	"	26,	"	106,012	94
66th street to Hudson river, &c.....	Outlet sewer.....	"	30,	"	347,488	58
86th " between 1st avenue and East river.....	Regulating, grading, &c.....	"	30,	"	6,057	65
129th " at 6th avenue.....	Basins.....	Nov'r	2,	"	1,586	66
125th " at 7th avenue.....	".....	"	2,	"	766	66
2d avenue, between 125th street and Harlem river.....	Sewer.....	"	2,	"	13,890	29
81st street, " 3d and 4th avenues, &c.....	".....	"	2,	"	21,488	97
5th avenue, " 136th and 137th streets.....	".....	"	2,	"	1,000	00
Madison avenue, between 59th and 68th, 74th and } 86th streets.....	Paving.....	"	22,	"	132,248	34



S3d " " 8th avenue and Boulevard.....	Regulating, grading, &c. ....	" 26, "	17,206 02
3d avenue, " 93d and 107th streets, &c. ....	Sewer. ....	January 3, 1873	125,086 19
132d street, " 8th avenue and Harlem river...	Regulating, grading, &c. ....	" 3, "	15,625 44
60th and 66th streets, bet. Avenue A and 3d av., &c.	Sewers. ....	" 15, "	92,895 20
124th street, between 3d and 4th avenues. ....	" .....	" 15, "	12,898 50
104th " " " " " " .....	" .....	" 15, "	983 07
104th and 105th streets, between 2d and 4th avenues	" .....	" 15, "	11,698 70
119th street, between 3d avenue and Avenue A. ....	Paving .....	" 15, "	24,043 63
10th avenue, " 70th and 81st streets. ....	Regulating, grading, &c. ....	Feb'y 20, "	80,290 84
66th street, " Boulevard and New avenue. ....	" " " " " " .....	" 20, "	12,788 36
87th " " " " " " .....	" " " " " " .....	" 20, "	22,102 86
63d " " 1st avenue and East river. ....	" " " " " " .....	" 20, "	6,074 43
134th " " 4th and 8th avenues. ....	" " " " " " .....	" 20, "	40,328 06
1st avenue, " 56th and 86th streets. ....	Curb, gutter and flagging. ....	" 20, "	25,904 00
1st " " 69th and 74th streets, &c. ....	Sewer. ....	" 20, "	66,097 28
89th street, " 2d and 4th avenues. ....	" .....	" 20, "	27,966 00
85th street, at Lexington avenue. ....	Basins. ....	" 20, "	473 25
86th " " " " " " .....	" .....	" 20, "	1,395 25
87th " " " " " " .....	" .....	" 20, "	465 25
88th " " " " " " .....	" .....	" 20, "	412 25
Between 92d and 93d streets, and 2d and 3d avenues.	Drains. ....	" 20, "	803 00
" 77th and 78th " " 1st and 2d "	" .....	" 20, "	776 00
145th street, between 6th and 7th avenues. ....	Reg., grad. and superstructure.	" 20, "	19,600 00
72d " " 8th avenue and Hudson river. ....	Regulating, grading, &c. ....	March 6, "	53,167 16
Between 91st and 93d streets, and 2d and 3d avenues.	Drains. ....	" 6, "	803 00
4th avenue, between 109th and 115th streets, &c. ....	Sewer .....	" 6, "	23,536 56
118th street to Harlem river. ....	Outlet sewer. ....	" 6, "	4,820 40
82d street, at Lexington avenue. ....	Basin. ....	" 6, "	619 25
84th " " " " " " .....	" .....	" 6, "	983 50
80th " " " " " " .....	" .....	" 6, "	601 25
86th " " 4th avenue. ....	" .....	" 6, "	387 00
74th " " Lexington avenue. ....	" .....	" 6, "	508 00
77th " " " " " " .....	" .....	" 6, "	508 00
78th " " " " " " .....	" .....	" 6, "	412 25
79th " " " " " " .....	" .....	" 6, "	535 25

TABLE B—Continued.

LOCATION OF IMPROVEMENT.	DESCRIPTION OF IMPROVEMENT.	DATE OF CONFIRMATION.	AMOUNT OF ASSESSMENT.	
			On the City.	On Property.
87th street, Lexington avenue.....	Basin.....	March 6, 1873.		\$412 25
85th " " " ".....	".....	" 6, "		491 25
		DATE OF CERTIFICATE OF COST OF IMPROVEMENT.		
117th street, between 4th avenue and Harlem river..	Paving.....	October 12, 1870.		45,311 09
113th " " 3d " " " ".....	Sewer.....	July 1, 1871.		10,213 50
5th avenue, " 130th and 138th streets.....	Regulating, grading, &c.....	" 24, "		43,838 28
113th street, " 3d avenue and Harlem river..	".....	Sept'r 4, "		13,969 30
83d " " 3d and 5th avenues.....	Curb, gutter and flag.....	October, 18, "		4,239 93
1st avenue, at 109th street.....	Sewer.....	March 5, 1872.		825 00
109th street, between 4th avenue and Harlem river..	".....	" 5, "		18,525 05
2d avenue, between 111th and 116th streets, &c.....	".....	June 26, "		16,073 55
Avenue A, " 71st and 74th streets.....	".....	" 26, "		38,084 88
90th street, " 3d and Lexington avenues.....	Fencing.....	August 29, "		88 77
Between 78th and 80th streets, 2d and 3d avenues....	Drains.....	October 31, "		3,484 22
122d street, between 9th avenue and Mt. Morris sq..	Regulating and grading.....	Nov'r 14, "		57,373 38
Between 71st and 74th streets, 9th ave. and Boulevard.	Drains.....	" 14, "		12,488 50
Avenue A, between 74th and 79th streets.....	Sewer.....	" 14, "		59,617 75
4th avenue, " 88th and 90th ".....	".....	" 14, "		53,677 00
92d, 93d and 94th streets, bet. 4th and 5th aves., &c.	".....	" 16, "		51,865 40
133d street, between 4th and 8th avenues.....	Regulating, grading, &c.....	" 23, "		32,226 19
10th avenue, " 128th and Manhattan streets....	Sewer.....	Dec'r 7, "		11,326 89
188th street, " Boulevard and Hudson river.....	".....	" 7, "		3,038 91

Lexington avenue, between 70th and 71st streets.....	"	14,	"	1,023	00
Between 67th and 63d streets, 4th and 5th avenues...	Drains.....	"	21,	22,242	92
87th street, between 1st avenue and East river.....	Regulating, grading, &c.....	"	24,	17,898	25
68th " " Boulevard and 10th avenue.....	Sewer.....	January	3, 1873.	6,327	25
1st avenue, " 118th and 119th streets.....	"	"	3,	904	70
130th and 131st streets, between 4th and 5th avenues	"	"	15,	10,461	50
76th street, between 2d and 3d avenues.....	Curb, gutter and flag...	"	15,	2,816	49
123d " " 8th avenue and New avenue.....	Regulating, grading, &c.....	"	15,	22,412	12
65th " " 1st and 3d avenues.....	Sewer.....	"	27,	10,263	00
67th " " 3d and 4th avenues.....	"	"	27,	11,076	00
63d " " 4th and 5th avenues.....	Paving.....	"	15,	7,722	17
Between 61st and 63d streets, 4th and Madison aves..	Drains.....	Feb'y	21,	919	00
93d street, between 4th and 5th avenues	Regulating, grading, &c.....	March	25,	6,869	08
2d avenue, " 86th and 125th streets.....	Paving.....	"	9,	213,800	55
65th street, at 1st avenue.....	Basin.....	"	22,	508	00
88th street, between 2d and 3d avenues, &c.....	Sewer.....	May	22,	48,708	25
Between 73d and 81st streets, 1st and 5th avenues...	Drains.....	"	31,	38,971	32
60th street, between 10th avenue and Hudson river.	Regulating, grading, &c.....	June	2,	19,871	72
Between 72d and 73d streets, 1st and 2d avenues.	Drains.....	"	2,	395	38
66th street, between Avenue A and 1st avenue.....	Sewer.....	"	2,	12,259	70
127th " " 6th and 8th avenues.....	Regulating, grading, &c.....	"	27,	8,097	97
92d " at Avenue A.....	Basins.....	July	3,	1,987	60
81st " between 1st and 2d avenues.....	Sewer.....	"	3,	8,059	00
79th " " 9th and 10th avenues.....	Regulating, grading, &c.....	"	7,	39,264	24
128th " " 6th and 8th avenues.....	"	"	25,	8,004	79
69th street, " Boulevard and Hudson river....	Regulating, grading, &c.....	"	25,	16,252	34
109th " " 3d avenue and Harlem river.....	Curb, gutter and flag.....	"	25,	7,335	56
7th avenue, " 110th street and Harlem river....	Regulating and grading.....	"	26,	\$381,949	92
89th street, " 2d avenue and East river, &c....	Outlet sewer.....	August	22,	156,705	25
105th " " 3d " Harlem river.....	Regulating, grading, &c.....	"	22,	37,641	86
60th " " 1st and 3d avenues.....	Paving.....	"	22,	11,061	37
New avenues east and west of Mount Morris square..	Regulating, grading, &c.....	Sept'r	9,	48,596	33
83d street, between 3d and 5th avenues.....	Paving.....	"	18,	15,712	37
Lexington avenue, between 69th and 70th streets, &c.	Sewer.....	October	9,	939	90
121st street, between 7th and 8th avenues.....	Regulating and grading.....	"	9,	29,031	10
87th " " 2d and 4th avenues.....	Paving.....	"	23,	13,768	79

TABLE B—Continued.

LOCATION OF IMPROVEMENT.	DESCRIPTION OF IMPROVEMENT.	DATE OF CERTIFICATE OF COST OF IMPROVEMENT.	AMOUNT OF ASSESSMENT.	
			On the City.	On Property.
188th street, between 8th avenue and Boulevard.....	Regulating, grading, &c.....	Oct'r 29, 1873.		\$21,105 53
117th " " 7th and 8th avenues.....	" " ".....	Nov'r 13, "		15,572 70
69th street, at Lexington avenue.....	Basin.....	" 13, "		403 80
Lexington avenue, between 61st and 66th streets.....	Curb, gutter and flag.....	" 13, "		1,598 46
Avenue A, between 59th and 61st streets.....	Sewer.....	" 13, "		15,458 00
84th street, " 8th and 10th avenues.....	Regulating, grading, &c.....	" 19, "		10,804 61
145th " " 7th avenue and Boulevard.....	" " ".....	" 19, "		86,967 57
104th " " 2d and 3d avenues.....	Sewer.....	" 19, "		2,533 30
82d " " 4th and 5th ".....	Regulating, grading, &c.....	" 28, "		3,274 79
6th avenue, between 125th and 129th streets.....	Sewer.....	" 28, "		26,051 95
61st street, " 2d and 3d avenues.....	Fencing.....	" 28, "		110 32
65th street, at Lexington avenue.....	Basin.....	Dec'r 8, "		438 00
130th street, between 7th and 8th avenues.....	Regulating and grading.....	" 8, "		19,616 27
138th " " 8th avenue and Harlem river.....	Regulating, grading, &c.....	" 8, "		186,087 86
120th " " 3d and 6th avenues.....	" " ".....	" 8, "		43,268 28
75th " " 5th avenue and East river.....	" " ".....	" 17, "		121,714 38
7th avenue, between 110th street and Harlem river ..	Superstructure.....	" 19, "	\$226,815 51	226,815 50
Between 66th and 67th streets, 5th and Madison aves.	Drains.....	" 23, "		650 00
61st street, between 9th and 10th avenues.....	Curb, gutter and flag.....	" 23, "		1,964 97
63d " " Lexington and 4th avenues.....	Paving.....	" 23, "		3,450 06
110th " " 5th and 8th avenues.....	Sewer.....	" 23, "		18,397 86
67th " " 3d and 4th ".....	Regulating, grading, &c.....	" 31, "		7,065 54
126th " " 8th avenue and Lawrence street.....	" " ".....	" 31, "		7,135 39
80th " to Hudson river.....	Outlet sewer.....	January 10, 1874.		154,682 18
Between 71st and 92d streets, 8th and 10th avenues..	Drains.....	" 10, "		93,042 66

10th avenue, between Lawrence and 130th streets...	Sewer.....	"	16,	"	3,363	00
Avenue A, " 120th and 121st streets, &c....	" .....	"	22,	"	10,697	50
6th, 7th and St. Nicholas aves, bet. 110th and 116th sts.	" .....	"	22,	"	142,669	05
119th street, between 4th and 8th avenues.....	Regulating, grading, &c.....	"	23,	"	41,685	60
69th " " 10th avenue and Hudson river.	Outlet sewer.....	"	29,	"	62,380	62
63d " " 2d avenue and East river.....	Paving.....	"	29,	"	15,651	22
111th and 112th streets, bet. 1st ave. and Avenue A.	Sewer.....	February 6,	"	"	5,245	40
Bet. 77th and 78th streets, 9th ave. and Hudson river.	Drains.....	"	6,	"	45,571	84
Lexington avenue, between 66th and 96th streets....	Regulating, grading, &c.....	"	14,	"	91,473	52
Between 92d and 111th streets, 10th and 11th avenues.	Drains.....	"	28,	"	29,709	94
104th, 105th and 106th sts., bet. 8th ave. and Boulevard.	Regulating, grading, &c.....	"	28,	"	97,464	54
118th street, between 7th and 8th avenues.....	" .....	April	4,	"	14,860	27
77th " " Madison and 3d avenues.....	Paving.....	"	4,	"	10,945	83
Between 62d and 68th streets, 8th and 9th avenues...	Drains.....	"	8,	"	21,280	62
69th street, between 3d and 5th avenues.....	Paving.....	"	14,	"	14,844	38
74th " " 3d and 5th " .....	" .....	"	14,	"	14,722	84
86th " " 3d and 5th " .....	" .....	"	14,	"	31,090	73
67th " " 8th avenue and Hudson river...	Regulating, grading, &c.....	"	24,	"	58,330	68
67th " " 9th and 10th avenues.....	Sewer.....	"	30,	"	17,041	00
116th " " 7th and 8th " .....	Regulating and grading.....	"	30,	"	32,300	06
129th street, at 3d avenue .....	Basin.....	May	2,	"	348	00
60th street, between Boulevard and 9th avenue.....	" .....	"	8,	"	457	80
162d " " Avenue St. Nicholas and 11th ave.	Regulating, grading, &c.....	"	16,	"	7,804	21
69th " " 3d and 4th avenues.....	Flagging.....	"	16,	"	3,214	26
75th " " 1st and 2d avenues.....	Sewer.....	"	22,	"	10,894	00
125th " " Manhattan street and Harlem riv.	Paving.....	"	29,	"	167,221	77
7th avenue " 121st and 137th streets.....	Sewer.....	"	29,	"	124,570	21
Avenue St. Nicholas, between 110th and 155th streets.	Reg., grad'g and superstructure	June	1,	"	602,751	86
Manhattan street, at Broadway.....	Basin.....	"	11,	"	389	60
78th street, between 3d and 5th avenues.....	Curb, gutter and flag.....	"	16,	"	2,352	14
6th avenue, between 116th and 125th streets, &c.	Sewer.....	"	16,	"	121,768	00
68th street, " 8th avenue and Hudson river...	Regulating, grading, &c.....	"	23,	"	69,231	29
68th " " 3d and 4th avenues.....	" .....	"	23,	"	8,730	57
6th avenue, " 129th and 147th streets.....	Sewer.....	"	23,	"	136,892	75
68th street, " 4th and 5th avenues.....	Paving.....	"	23,	"	6,823	25
Lexington avenue, at 75th and 76th streets.....	Basins.....	"	23,	"	1,189	20

TABLE B—Continued.

LOCATION OF IMPROVEMENT.	DESCRIPTION OF IMPROVEMENT.	DATE OF CERTIFICATE OF COST OF IMPROVEMENT.		AMOUNT OF ASSESSMENT.	
				On the City.	On Property.
86th street, between 8th and 10th avenues.....	Regulating and grading.....	June	26, 1874.		\$28,633 34
75th " " 8th and 10th avenues.....	Regulating, grading, &c.....	July	8, "		65,139 34
2d avenue, " 63d and 66th streets.....	Paving.....	"	8, "		10,481 00
Boulevard " 59th and 155th streets.....	Reg., grad'g and superstructure	"	9, "	\$1,244,299 29	1,244,299 28
65th street " 3d and 5th avenues.....	Paving.....	"	11, "		13,554 12
Madison avenue, between 121st and 125th streets....	Sewer.....	"	11, "		6,652 08
123d street, between 6th ave. and Mt. Morris square.	".....	"	11, "		1,105 00
115th " " 7th and 8th avenues.....	Regulating and grading.....	"	11, "		32,289 14
Madison avenue, between 69th and 70th streets, &c...	Fencing.....	"	11, "		897 03
Boulevard, between 60th and 61st street.....	".....	"	11, "		234 53
Manhattan street, bet. 12th av. and Av. St. Nicholas	Sewer.....	"	16, "		129,468 06
84th street, between Boulevard and Riverside avenue.	Regulating and grading, &c...	"	18, "		24,915 10
Madison avenue, between 63d and 64th streets.....	Curb, gutter and flag.....	"	22, "		730 38
Bet. 62d and 69th streets, Boulevard and Hudson river	Drains.....	Aug.	12, "		13,719 36
85th street, between 8th and 9th avenues.....	Regulating and grading.....	"	12, "		40,862 99
64th " " 9th and 10th avenues.....	Regulating and grading, &c.....	"	12, "		2,953 52
80th " " 5th and Madison avenues.....	Paving.....	"	12, "		3,486 23
106th " " 3d avenue and East river.....	Regulating, grading, &c.....	Sept'r	4, "		28,004 75
92d " " 8th avenue and Boulevard.....	" " ".....	"	4, "		8,007 72
Madison ave., " 124th street and Harlem river..	" " ".....	"	21, "		18,042 96
3d avenue, " 66th and 69th streets.....	Curb, gutter and flag.....	"	28, "		1,540 09
2d " " 66th and 86th streets.....	Paving.....	Oct'r	8, "		75,213 59
138th street, " 11th avenue and Boulevard.....	".....	Nov'r	6, "		5,450 60
85th " " Avenue A and 5th avenue.....	".....	"	6, "		32,736 30
86th " " 8th avenue and Boulevard.....	Regulating, grading, &c.....	"	12, "		69,882 42



1st avenue, " 65th and 92d streets . . . . .	Paving . . . . .	"	17,	"	142,686	22	
130th street to Hudson river . . . . .	Outlet sewer . . . . .	"	17,	"	108,294	75	
80th street, between 8th ave. and Riverside ave. . . . .	Regulating, grading, &c. . . . .	"	17,	"	32,027	47	
95th and 98th streets, between 1st and 3d avenues, &c. . . . .	Sewers . . . . .	"	19,	"	60,883	67	
126th street, between 5th and 8th avenues . . . . .	Regulating, grading, &c. . . . .	"	27,	"	9,427	52	
152d " " Boulevard and 10th avenue . . . . .	Sewer . . . . .	"	27,	"	17,540	38	
100th " " 8th avenue and Boulevard . . . . .	Regulating, grading, &c. . . . .	Dec'r	4,	"	17,226	05	
Lexington avenue, between 67th and 68th streets . . . . .	Sewer . . . . .	"	4,	"	3,649	80	
84th street, between Avenue A and 3d avenue . . . . .	Paving . . . . .	"	4,	"	23,345	38	
71st " " 8th avenue and Boulevard . . . . .	" . . . . .	"	4,	"	15,081	52	
81st " " 2d and 4th avenues . . . . .	" . . . . .	"	8,	"	12,412	62	
130th " " 3d and 4th avenues . . . . .	Sewer . . . . .	"	18,	"	8,990	76	
Avenue B, " 86th and 87th streets . . . . .	" . . . . .	"	18,	"	5,821	17	
Between 110th and 124th streets, 5th and 8th avenues . . . . .	Drains . . . . .	"	18,	"	53,978	25	
121st street, between 1st avenue and Avenue A . . . . .	Flagging . . . . .	"	19,	"	786	69	
116th " at Avenue St. Nicholas . . . . .	Basin . . . . .	"	19,	"	466	40	
88th " between 3d and 4th avenues . . . . .	Paving . . . . .	"	19,	"	6,678	56	
107th " at 6th avenue . . . . .	Basin . . . . .	"	31,	"	406	00	
111th " at Avenue St. Nicholas . . . . .	" . . . . .	"	31,	"	381	00	
112th " " . . . . .	" . . . . .	"	31,	"	368	00	
67th " bet. 4th and 5th avenues . . . . .	Regulating, grading, &c. . . . .	"	31,	"	3,222	48	
		Total . . . . .			\$1,959,846	11 \$14,402,848	16

**DOCUMENT No. 65.**

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BOARD

OF THE

Department of Public Parks.

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MARCH 30th, 1875.

A communication from Commissioner William R. Martin relative to the plans and improvement of the Fort Washington district, and the 23d and 24th Wards.

Received and ordered printed as a document of the Board.

WM. IRWIN,

*Secretary, D. P. P.*

DEPARTMENT OF PUBLIC PARKS, }  
NEW YORK, 19th March, 1875. }

*To the Board of Commissioners :*

The region north of 155th street and the Harlem River, comprising the Fort Washington district of Manhattan Island, and the 23d and 24th Wards, the district annexed from Westchester county, is under the control of this Department.

I.—This region is now occupied, in part, as villa residences and small farms under cultivation. It includes four or five villages, with old roads along the lines of which population has settled. Its advantages have been so attractive that in various places efforts to adopt a permanent plan of improvement have been made, and there is a general desire that it shall be prepared now in all respects for its ultimate occupation. The topographical surveys of the whole region have been made and the work should no longer be delayed.

In this work there are three cardinal points :

1st. Laying out the region with streets, avenues and public places, and treating the water-front and steep declivities, including provision for sewerage and drainage.

2d. The acquisition of title for the public use to such portions of the land as may be appropriated for that purpose.

3d. The actual construction work by which the whole surface is to be prepared for its final occupation.

II.—The consideration of these points must include :

1st. An appreciation of the ultimate occupation to which the region is destined.

2d. A judicious economy, so that the property is not ruined by oppressive taxes and assessments before it can be made productive.

3d. A plan that admits of expeditious treatment, so that its settlement with population shall not be delayed, and all the natural streams of population be turned off into other suburbs of this city.

4th. Sanitary considerations, so that its capacity to be made the most healthful section of the city will not be wholly destroyed.

III.—It is clear that the interests of the property owners are entitled to the highest consideration.

If by a successful comprehension of the points above stated, high value can be maintained and supreme value finally attained for property, then improvements will go forward rapidly, assessments will be paid promptly, costly structures and buildings will be erected, the region will be filled with a wealthy and prosperous population, and the revenues of the city from taxation will be increased, so as to make an overflowing annual return upon the proportion of expense that will fall upon the city.

If, on the contrary, these necessary conditions are overlooked and neglected, so that property becomes depreciated, unsalable and unfit for occupation, then the failure in all these respects will be complete.

It will be a disgrace to the government of the city if the lessons that should have been derived from what has already been done in laying out this island and preparing it for a great population shall remain unheeded.

IV.—There have been three plans at different periods in laying out this island.

1st. The colonial plan, under which the city in the last century was laid out below Fourth street.

2d. The plan of the commissioners appointed under the law of 1807, by which the city was laid out with the numbered streets and avenues extending to 155th street.

3d. The revision of that plan, within the last fifteen years,

by the Central Park and other parks up-town, and the new avenues and boulevards.

V.—In each of these plans the defects are now apparent.

1st. In the first plan, below Fourth street, very little consideration was given to anything, except local subdivision.

2d. The plan of 1807 was simply the application of the rectangular system to an extended area, without regard to its topography or shore lines, and without considering the conditions of its growth or its probable future occupation.

Its defects were that no adequate provision was made for public places, or for avenues of superior width; that the length of the blocks should have been in the direction of the avenues, instead of that of the streets, which would have greatly increased the value of the property; that the avenues laid out did not, at their southern end, except in a few instances, connect with any existing thoroughfare in the lower part of the city, and that no attention was paid to the subjects of sewerage and drainage.

The result has been that the expense of construction in making the streets and avenues, has been needlessly great; that the time consumed in such construction has been so long as to impair the value of property; that the sewerage and drainage below Fifty-ninth street is, in most places, fatal to the healthfulness of that part of the city; and that an amount of population sufficient to occupy the whole island has, for these reasons, been diverted to Long Island and New Jersey.

3d. In the third plan an attempt was made, in the upper part of the city, to remedy the deficiencies in the plan of 1807, by the introduction of parks and boulevards and the amending of grades, so as to give character and value to that region and to facilitate its occupation.

That portion of the area west of the Central Park was open absolutely to the adoption of a new plan. The tram-

mels of the old rectangular system, and the timidity natural, in dealing with so grand a problem, has produced a result, more conspicuous for its failures than for what it has accomplished. The needless delays and obstructions in carrying out the plan have been disastrous to the interests of the city, and have prevented its settlement with population.

VI.—In approaching the subject of the plan of laying out this new region above 155th street, it is clear that upon the avoidance of these errors, and the adoption of a wise plan, depends the value of property and the prosperity of the city.

This region will be further considered under the following heads :

VII.—Its general topography.

VIII.—A forecast of its future and ultimate occupation.

IX.—The distinct character of its different sections.

X.—The features of the plan for laying it out ; including,

1. Its elevated sections, as the site of the most costly residences.
2. The natural valleys which subdivide it, and the level sections, adapted to business purposes and the less costly residences.
3. The borders of the Harlem river.
4. Its steep declivities.
5. Its points of external approach and departure, the main thoroughfares connecting these points, and the different sections within it of distinct character.
6. The lines and modes of rapid transit to it and through it.
7. The respect for existing property lines.
8. Parks and public places.
9. Grades.

XI. The navigation of the Harlem river and the bridges and tunnels across it.

XII. The most economical and speedy mode of acquiring title to the land needed for the public use.

XIII. The economical mode and order of construction work.

XIV.—A thorough system of permanent sewerage and draining on the best scientific principles, and temporary expedients for draining until that system can be carried out.

XV.—In all these points a thorough appreciation of all sanitary conditions.

XVI.—Pecuniary considerations.

XVII.—This plan in its whole scope should be the subject of immediate decision.

XVIII.—Conclusion.

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VII.—*Its general topography.*

The whole region is about 9 miles long, from north to south, and about 3 miles in breadth. It lies in three natural divisions.

1st. The Hudson river borders the first division on the west. About a mile eastward from the Hudson, and parallel with it, is the valley of the Harlem river and Tibbett's Brook. Between this first valley and the Hudson is a range of high land, broken at Inwood and Spuyten Duyvil by valleys crossing this range and coming down nearly to the water level. With these exceptions, the general character of the range is that of a high table land, 200 feet above the water level, with steep abrupt declivities on a rocky foundation, but rising at several points into marked prominences.

2d. About a mile eastward from the first valley lies the second, that of the Mill Brook, running from the Harlem river

opposite Randall's island northerly to Jerome Park and abreast of that falling into the valley of the Bronx, and extending northerly along that river to the northern boundary of the district. This valley starts at Harlem river at a level of 20 feet above high-water, and as it extends northerly rises to about 60 or 80 feet. The intervening territory, between the first and the second valleys, is very much broken. From the Harlem river northward it is subdivided by the valley of Cromwell's creek and Central avenue, on a level of about forty feet, extending northerly about two miles. Other minor valleys subdivide its northern section. The land rises in ridges and irregular hills, in its lower portion to the height of 120 and 160 feet, and in its upper portion to 180, 240 and 280 feet.

3d. The third or eastern division is bounded on the east by the valley of the Bronx river, which, south of its intersection with the Mill Brook valley, opposite Jerome park, turns to the eastward, leaving between it and the Mill Brook valley, a region of irregular surface, rising into hills 80 and 100 feet in height.

#### VIII.—*A Forecast of its future and ultimate Occupation.*

The practical question here is, whether the region should be laid out now for future occupation as a compact city, such as the lower part of Manhattan Island, or as an open suburban villa region. The latter will evidently be the result.

It is not difficult, within approximate limits, to determine the future growth and population of this city as a metropolis, and how far around it a dense population will extend.

Within a circle, with a radius of five miles from the City Hall, there is an area, excluding the waters of the East and Hudson rivers and the bay, of 57 square miles.

Within a second circle, with a radius of ten miles from the City Hall, there is an area, excluding the waters, of 247 square miles.

Within a third circle, with a radius of 15 miles from the City



Hall, there is an area, excluding the waters, of 525 square miles.

The northerly boundary of the region, which is under consideration, is 15 miles from the City Hall.

The density of compact population in the thickly settled portions of the city may be estimated at 100,000 to the square mile, and that of suburban villages at 20,000 to the square mile.

The capacity for population within these different circles, at the greatest density of the city, at the density of suburban villages, and at their average, is as follows :

	At 100,000 PER SQUARE MILE.	At 20,000 PER SQUARE MILE.	At 60,000 PER SQUARE MILE.
1st Circle, 5 miles radius, 57 square miles..	5,700,000	1,140,000	3,420,000
2d Circle, 10 miles radius, 247 square miles.....	24,700,000	4,940,000	14,820,000
3d Circle, 15 miles radius, 525 square miles.....	52,500,000	10,500,000	31,500,000

It thus appears that, if the city were to grow to such an extent as to fill up the circle of 15 miles radius, one-half compactly, and the other half in village style, there would be room for a population, within this circle, touching the northerly boundary of this region, of 31,500,000, which it is absolutely certain will never be reached.

The growth of New York, as a metropolis, bears a relation to the general growth of the country. As a metropolis, it includes the cities of New York, Brooklyn, Williamsburgh and Jersey city.

The statistics of this growth up to the present time have been as follows :

	THE UNITED STATES.	THE METROPOLIS.
1800 .....	5,308,483	66,000
1810.....	7,239,881	104,000
1820.....	9,638,453	132,861
1830.....	12,866,020	221,985
1840.....	17,070,240	357,015
1850.....	23,191,876	650,021
1860.....	31,443,321	1,110,141
1870.....	38,558,371	1,441,364

If this growth should continue in the future, at the rate of the ten years from 1860 to 1870, it will be for the next few decades, as follows : Such a result is impossible.

	THE UNITED STATES.	THE METROPOLIS.
1880.....	47,234,004	1,873,773
1890.....	57,861,665	2,435,905
1900.....	70,869,527	3,167,676
1910.....	86,815,170	4,117,979
1920.....	106,348,583	5,353,372
1930.....	130,277,014	6,959,384
1940.....	158,589,342	9,047,199
1950.....	194,271,943	11,761,359

These calculations of future proportionate growth are however all fallacious.

There are natural limits to this growth, in the same way that there are to the stature of a growing boy. The 1,000 year old cities of Europe and Asia prove it. It may surely be assumed

that these proportions will never be reached. The natural concentration of population in great cities will not all be gathered in this metropolis ; other great centres will share it.

Assuming that the population, within the 15 mile circle, may reach 5,000,000, it will be at the average 10,000 a square mile, and the result will be that within this 15 mile circle, compact population will gather in certain particular locations—on certain lines of main travel, and the rest of the area will never be settled beyond a loose village population.

There will arise an increasingly intense competition for this population between every square mile within this area, and up to the present time, all the points of that competition have been adverse to the region now under consideration. A very small proportion of the growth of the metropolis since 1850 has settled within the city limits. It has been diverted to Brooklyn and New Jersey, and this is directly due to maladministration of the city government, which we have now an opportunity to aid in reversing.

IX.—*The distinct character of the different sections of this region :*

It is clear from what has been stated that along the valley lines, which have been indicated, and which divide the region, and upon its borders, there will be a compact population. This includes about one-third of its whole area, mainly on its southern and eastern sections.

The elevated lands between these sections will never come into any other occupation than that of villas and villages.

Railroads and ordinary business occupations will avoid these elevations.

X.—*The features of the plan for laying the region out :*

1. These elevated sections must be laid out as the site for the most costly residences. The improvements will be of more expensive character than those of any other of the suburbs of the city and they will make the land the most valuable. The

plans for laying out these sections must, therefore, be adapted to sustain and encourage this kind of suburban occupation and value—*i. e.*, they must be largely influenced by esthetic considerations. The avenues must be sufficiently broad for double lines of trees; their courses and grades must be adapted to the natural topographical conditions; the interspaces between the avenues must be arranged for villas and not as city lots, and there must be points selected where advantage can be taken of the natural beauty of location and prospect for small parks and ornamental crescents, triangles and plazas. Any other plan will simply destroy the value of the property.

2. In the natural valleys and sections of low elevation the population will be more dense and the buildings and improvements, except those for business purposes, of a less expensive kind.

Here straight and parallel streets, with interspaces for city lots of the ordinary size, must be laid out. The avenues, which will become business thoroughfares, must be foreseen, and attention must be paid to the question of the direction in which the length of the block will run. For the portions of this section which will be filled with residences, streets of ordinary width will suffice, but parks here and there must be inserted in order to give it an attractive character for suburban population.

3. The borders of the Harlem river will ultimately become the seat of a great local business for the supplies of the population, and for factories and manufacturing business.

The facilities of navigation and of railroad approach give the shores of this river natural advantages which, if they are properly improved, will make it matchless throughout the whole country for such purposes.

They should be treated in such a way as to admit of the most speedy and least expensive mode of preparation for actual occupation.

A bulk-head line should be fixed which will leave sufficient width of water-way, and within which the land can be filled up without great expense or loss of time.

4. The sides of many of the ranges of hills, particularly those on the banks of the Hudson and Harlem rivers, are steep

and precipitous, which is also the case with the mounds and rounded hills which rise at different points in the northerly parts of this region. They are, in many places, rocky impracticable precipices; these can never be graded and brought into the occupation which will cover ground more favorably situated; even a treatment by terraces would, in many cases, involve too great an expense ever to be practicable; any process of levelling is out of the question. In competition with ground more readily accessible such precipitous land will not be worth, for occupation, what it will cost to construct the approaches to it.

There remain two modes of treatment: first, The appropriation of the steeper declivities for the public use, reserving them in their wild natural beauty for parks and pleasure grounds. This, at slight expense, would greatly increase the value of adjacent property, and enable it the better to bear the burden of a great city's taxation, and at the same time increase the city's resources. The locations adapted to this treatment are the banks of the Harlem River north of 155th street, the banks of the Hudson below Spuyten Duyvil, and some portions of the valley of Tibbett's Brook and of the Bronx.

The valley of the Bronx, from the Lydig estate northwardly, is a beautiful region with picturesque hill-sides. The stream is of no use for navigation, and too good to be used for a common sewer. A long narrow park, with drives upon the banks at its sides, would be a good method for the improvement of this valley, and would add greatly to the value of the whole vicinity.

The second method of treating the hill-sides, where the abruptness of the declivity is not so great, is by a succession of terraces in which the ornamental and park-like character adapted to the more elevated region, shall be applied, where they can be constructed without too great expense.

5. The points of external approach and departure and the crossings of the Harlem river are primary conditions of any plan. These points are as follows:

a. Along the Hudson river, steamboat landings. There are only two or three points where cross-roads will be found practicable.

b. The bridges and tunnels along the Harlem river, as follows: 1. A suspension bridge from height to height, across the mouth of Spuyten Duyvil. 2. Kingsbridge or a crossing in its vicinity. 3. At the foot of Inwood street. 4. The suspension bridge half a mile north of the High bridge. 5. The bridge or tunnel at McComb's dam. 6. Bridges at the head of one or more of the avenues between First and Sixth.

c. Outlets across the Bronx at such points as Westchester avenue, the village of West Farms, Williamsbridge, Woodlawn and Mt. Vernon, connecting with roads running eastwardly.

d. On the northern side the several roads leading out to Yonkers.

These points of border approach and departure should be connected with main thoroughfares through the region, striking and leading to the different residence and business sections.

These points and sections should be thoroughly considered, and brought into relation, in determining permanently the system of main thoroughfares throughout the region.

6. Lines and modes of rapid transit, in addition to the existing railroads, to and through the region, must be provided for.

Obviously, the first consideration in preparing the region for a future settlement springing from the city must be to make it accessible from the city and traversable through its whole extent by lines of steam transit. A suburban population will not sustain an elevated road built at a cost which the density of population and high value of property in the city would justify. Provision must therefore be made for a depressed or viaduct road, or some mode of construction practicable in a rural district, by which crossings can be made at a different level for ordinary travel, and such travel protected from any inconvenience from the passing of locomotives. The lines of these roads must be run in a general northerly direction, through the natural valleys with proper cross-roads and intersections, and with regard to present and future economy of construction. This feature of the plan should receive the first consideration.

7. The existing property lines must be respected so far as it can be done judiciously, and in subordination to the more important features of the plan of treatment. No division of ground

should be made if it can be avoided, by which an owner would be deprived of front on a street, or by which small parcels of land would be left isolated or separated by narrow strips from a frontage.

8. There is no point better established in the whole modern science of preparing land for settlement, either in cities or for villa purposes than this: that respect must be paid to the places that are set apart for public parks and the pleasure grounds of an increasing population. It is better to provide for this at the outset than to do as has been done in the case of every other city, to neglect it and then repair the neglect, with great inefficacy of plan and at an expense by millions for results which could have been accomplished by thousands if undertaken at the proper time.

Sanitary reasons alone form a sufficient consideration for such a disposition of part of the area. Masses of foliage and breadth of natural surface for the use of the young, and of those who are struggling with the adverse conditions of human existence, for the sake of the health alone which they supply, are vital conditions of a successful plan. These breathing-places should be a principal and cardinal feature, instead of being subordinated into otherwise unimportant and unappropriated patches and remnants. The suburbs of New York are not notable for their healthfulness, and in the competition into which this region is soon to enter for its share of population with all the other suburbs, its success will depend in great measure upon its attention now to these sanitary requirements.

The increase in the value of land is another consideration sufficient in itself for this ornamental treatment. It is a fundamental principle in regard to the valuation of land, that high values depend upon the high value of the improvements upon it.

In any area, of a distinct individual character in respect to its improvements, the average value of the lots will be equal, as a general rule, to the average value of the buildings upon them. This is generally true in regard to distinct sections in the city, such as Broadway, the warehouses about Church and Worth streets, the first-class residence section on Murray Hill, or any tenement house region on the east side. It is true also in the country, whether you con-

sider the highly improved places, such as Irvington, or a common country village. A gentleman who lays out his country seat increases the value of his land as such, by every dollar he judiciously spends upon it. Llewellyn Park, compared with adjacent unimproved ground, is worth more as land by the measure of the money judiciously expended upon it for its ornamentation. The region under consideration must end, as we have stated, in becoming a rural or semi-rural district, and its character as such will depend upon the ornamental features of its treatment. Like a gentleman's country seat, if this treatment be liberal, the value and attractiveness of the country will be high, and if it be neglected this will be no better than the commonest of the other suburbs.

If this liberal treatment be adopted now, at slight expense at the outset proportioned to its great future value, the result will be high value of land consequent upon the character of the improvements and the wealthy class of occupants attracted to settle there; and these high values and wealthy occupants will be the unfailing resources of the city for taxation.

9. Over a region such as has been described, a general leveling to a flat surface by grades is impracticable. Unless grades are settled and fixed with great good judgment and discrimination, the expense of constructing streets and avenues, and of reducing the intervening spaces to their level, will become an enormous burden upon property, so heavy as to delay the work of construction, depreciate the value of property and indefinitely postpone its productive occupation.

The principle, therefore, to be adopted in regard to grades is that main thoroughfares shall be of easy grades, and that the intervening spaces shall conform as far as practicable to the natural surface. Elevations destined to future villa-occupation should be kept up at a high level, because they will become ultimately points of the highest value by reason of their healthful and commanding situation.

This method of park-like treatment, with natural grades, will be the most economical in construction.



XI.—*The Navigation of the Harlem River, and the Bridges and Tunnels across it.*

The Harlem river must be kept open for navigation, and to this end it must be as free as possible from obstructions, and the bulkhead line must be set back, near enough in shore to leave as wide a water way as practicable, even though it be of varying width ; and the bridges and tunnels which are inevitable for crossing it must be planned so as ultimately to leave open a free navigation. The narrow channel laid down between the parallel lines shown on the maps of this river is a contradiction of its certain prospects of becoming an open channel of important navigation. If great expense is to be incurred in the construction of tunnels to keep this navigation open, it is needless in the same plan to incur a great expense in diminishing the width of its water way.

The channel is not now free from difficult obstructions, and therefore cannot be considered as if it were free, but it must be looked at in the light of its actual condition. The present obstructions are the bridges—the Kingsbridge, the Farmers' bridge, the Eighth avenue bridge, the Fourth avenue Railroad bridge, and the Third avenue iron bridge—the ledges of rock in the Harlem river, above the High bridge, and the narrow, shallow, rocky and tortuous course of Spuyten Duyvil.

The best treatment of the river, as an open channel of navigation, will be a series of tunnels and suspension bridges across it. The suspension bridges at the heights, one at Spuyten Duyvil and the other half a mile north of the High bridge ; the tunnels at the following points, Kingsbridge, Seventh avenue, Third avenue, Fourth avenue, and another at some intermediate point. General Newton has estimated the expense of opening and clearing the rocks out of the channel at \$2,777,571. The two suspension bridges will cost \$1,000,000 each, and the five tunnels \$2,000,000 each. If this expenditure could be made now, an open, unobstructed channel of navigation could be secured ; but such is not the case. We must deal with the problem as it stands to-day—an obstructed channel which must hereafter be opened at great expense, and will then become of great value. When that time comes this great expense will be justified. That time will arrive when the lowlands on the channel

are filled with business, and its heights with residences. How is that to be accomplished? It is not to be done by projecting expensive improvements, too costly to be justified, and which we have no money to pay for, and then, having placed that barrier in our path, to stand by doing nothing, and, by indefinite postponements, to put off forever the realization of any substantial benefit, while other suburbs of the city, with fewer natural advantages, are gathering the business and population which otherwise might settle on this river. This policy must now be reversed.

The true policy, therefore, in treating this river, is to facilitate its occupation; to ask the United States Government to remove the ridges and obstructions to its channel; to connect the Highlands by one suspension bridge; to construct light temporary bridges wherever they are needed; and to rely on rapidly worked draws for the transit of vessels.

When these measures fill the valley with population, and its business and population demand it, the permanent works can be undertaken. Provision should be made now for ownership by the city of the land sufficient for the approaches to these tunnels and bridges.

XII.—*The most economical and speedy method of acquiring title to the land needed for the public use.*

The mode heretofore adopted in this city has been to commence a distinct proceeding for each separate street, avenue or public place. This has led to a long series of abuses, losses and disadvantages, which can now be reformed and obviated:

1. Expensive advertisements in each case.
2. Maps and surveyors' and assessors' fees in each case.
3. Commissioners' and clerks' fees in each case.
4. Diversity of decisions by different sets of commissioners on questions of title, of discretion and of law, and delay and uncertainty, until such conflicts are finally settled by the courts.
5. The lack of a uniform rule for determining the area of

assessments, resulting in an overlapping of several assessments on particular pieces of property, to the great injury of the owners. This is inevitable where the blocks are not rectangular but of irregular size and shape.

6. The delays arising from the interference of one set of commissioners with another and the inattention to their business on the part of some of them.

7. The increase of assessments, when different streets are taken in successive years, owing to the increase of the value of the land taken for the last streets arising from the improvements made in the region by the opening of the first streets.

In these respects the following reforms can be instituted :

1. Any series of streets, avenues or public places in one location can be grouped and included in one proceeding.

2. The expense of one advertisement answers for them all.

3. The maps and surveys could be supplied by this department without expense.

4. One set of commissioners and clerks could do the work over a whole area in which there was a general uniformity in respect to the value of the land. The expense of making up the reports could be greatly reduced.

5. A uniform principle can be adopted in regard to the area of assessment, so as to avoid all discrepancies or an overlapping of the boundaries of the land assessed for benefit. It will be impossible otherwise, in such a region as this, to avoid conflicts of boundaries if they are fixed by different commissions.

6. Uniformity of decision in all questions of title, of discretion, of law and of value and the avoidance of the necessity of going to the courts.

7. Great expedition in the work from the ability of one set of commissioners to decide at once numerous questions falling within the same class or depending on a single principle.

8. Great economy to the property owners and to the city in the amount of the assessment.

If all the land should be taken for the public use in one district, say in the town of Kingsbridge, in one proceeding and

at a uniformly graded price, it will work equality and justice in the distribution of the assessment ; but if, on the contrary, the streets be taken one after the other in successive years, the first streets at the outset at low prices, and other streets afterwards at different grades of increased price, the result will be in the end an unequal and unjust distribution of the assessment. This increase of price will be the result, because, as each improvement is made, its direct effect is to work up the value of the land in its vicinity, and thus to increase successively the cost of the subsequent improvements, and to end in making the public pay the highest price for the street which was worth least in the outset, but for which the proceeding had been delayed the longest.

#### 9. Uniformity in the valuations of the land.

The law as it stands now permits this grouping in one proceeding of several street openings. A proper method, then, will be to subdivide this region into several districts, within each of which the land has similar general character and relation of value ; and then either to take a single proceeding for all the streets within such district, or to divide them in classes, in the order of time in which they are needed, and then take these classes up in succession, one year after another.

A plan of this sort, resulting from a letter dated 28th November, 1872, from the undersigned to Andrew H. Green, then an officer of the department, has already been adopted by this Board.

### XIII.—*The Economical Mode and Order of Construction.*

When these avenues come to be worked and constructed, the expense will be very heavy and burdensome upon the property owners. It is important, therefore, first, that they shall be constructed in a manner through which the amount of filling and excavation under one contract shall be equalized and the work done at economical prices ; and secondly, that such avenues as open the region, and make it accessible to incoming population, and thus increase the value of property, shall be first constructed.

XIV.—*A thorough System of Sewerage and Drainage on the best Scientific Principles.*

In one section in this city, to wit, that west of the 8th Avenue, between 59th and 155th Streets, a system has been adopted of main sewers along the bottom of the natural valleys, and this keeps open all the natural outlets of underground and surface waterflow.

Except in that district, this principle of natural drainage has received no attention. Sewers were built in the lower part of the city on the lines of the streets and avenues, with insufficient inclination; the natural outlets were not kept open, but impeded, and great basins of underground collections remain, as sources of malaria.

The result is that the pipes in the dwelling-houses intended for drainage, have become fountains for the emission of malarial poison.

The lower part of the city will never be healthful.

The other important question, of providing for the collection of sewage, without pouring it out into the rivers, and then carrying it away and making it useful for agricultural purposes, has never received such consideration as to result in a practical experiment in this city.

Many experiments have been tried and much money expended on this subject in the cities of Europe, under the necessity of preserving the health of great centres of population.

Within the region under review, this subject ought to receive very thorough consideration, sufficient, at least, to provide, in the plan on which it is laid out, for such a system of thorough drainage and sewerage as it may be foreseen will ultimately become necessary. The best modern scientific methods of disposing of sewage should also receive careful study. In the meantime, the region needs immediate drainage. This should be as thorough as possible, upon a temporary system. It is obvious that the valleys running southwardly into the Harlem River cannot ultimately become lines of main sewerage without great detriment to the usefulness of that river and the healthfulness of the country. No expensive works of drainage should be constructed on such lines, when it can be foreseen now that in the end they will have to be abandoned.

XV.—*In these Points there must be a thorough appreciation of all Sanitary Conditions.*

Modern science has made rapid advances in the subject of the sanitary conditions necessary for the health of cities, and the next great movement of population in this metropolis will be away from the malarial and unhealthful section below Murray Hill to the suburbs of the city, as soon as its healthfulness is established and it is made ready for occupation—a movement, similar to that in London, of the wealthiest people from the crowded city to suburban villa life. Of all the suburbs of the city, this region will have its natural beauty and its healthfulness as its strong point in the competition for population.

If every sanitary consideration and advantage is thoroughly provided for, its future first-class occupation and high value will be secured.

XVI.—*Pecuniary Considerations.*

These considerations have two elements :

1. To produce the best ultimate results at the least cost, and
2. In the shortest time.

1. The cost of preparing a rural district for occupation as a finished city is enormous. This is shown by the fact that \$60,000,000 have been expended in the last fifteen years on the area between 59th and 155th streets. But its direct and necessary effect is, at the same time, to increase many-fold the value of the property ; and this justifies the owner and enables him to meet the assessments.

The work must be planned, not on an exaggerated scale, in flush times, which becomes impracticable in hard times, but on a well considered scale, upon which advantage can be taken of hard times and low prices to hasten the work ; and the work must be carried through in such an order as constantly to contribute to the accessibility and increase of value of the property.

2. This work should be done in the shortest practicable time.

The value of a tract of land undergoing transformation from farm to city does not become productive until the transformation is completed. At any intermediate point of time, the value depends upon the prospect that this completion will be speedy; that is, if the completion will be in a year, and its value as a city lot at that time can be foreseen, its present price can be fixed at a discount for a year on that value. If the completion be postponed ten years, the discount for that time will reduce the present value of the lot to nothing. This delay in the progress toward completion injures the owner in other respects, viz., the loss of interest on the capital he has invested, on the assessment he pays and the value of his own time, and also in the increasing amount of his annual taxes. Considerations like these bring property owners to the conclusion that a systematic rapid progression in public improvements is the point of vital consequence. Indefinite postponement and delay destroys the value of property. If all the improvements in this whole region were to cost \$20,000,000, and were to be completed within a year, the property would rise in value ten times that amount, and become productive. Each year's postponement diminishes the value, and results in positive loss to the property owner. This is a sharp illustration of the effect of delay in impeding value. In fact, the point of occupation and high value is not reached until the tide of population is ready to flow in upon and fill up the region.

A portion of the expense of this work will fall upon the city. Far beyond the measure of the advantage to the property owner will be the advantage and gain to the city. It will receive, in its annual taxation on this increased value, more than its total share of the expenditure, and such an income perpetually.

XVII.—*This plan in its whole scope should be the subject of immediate decision.*

In every aspect it is better for the property owners and the public to look calmly at every one of the necessary conditions of the problem of making this region the most attractive, the most valuable and the most healthful of all the suburbs of the

city ; to look at every item of future expense, and to concur now in the study and adoption of a plan which meets, not shrinks from meeting, these necessary conditions ; faces, not postpones, these necessary expenditures. A broad, comprehensive, positive policy will accomplish results which a narrow, piecemeal, obstructive policy will never reach. This latter policy has prevailed too long, to the great damage and destruction of the interests of property in the central portions of the island. If such a plan be adopted, its execution should be careful, economical and progressive.

If the expenditure is incurred in such order of time and improvement as to increase the value of property and not overburden it with debt, and then, by needless delay, to depreciate its value ; if the work of construction is carried forward, step by step, in proper order, so as to keep it healthful, and not, by street construction before sewerage and surface excavation before drainage, make it malarious and uninhabitable ; if the street openings, whether of main thoroughfares or of cross streets over the interspaces, are conducted so as to keep property lines intact, and not by throwing open to the public streets, for which there is no present use, across lawns and villa grounds, turn elegant country seats into unfenced wastes ; if attention be given so that the region may be fitted for its profitable and productive ultimate occupation at the earliest practicable period, without, in the meantime, rendering it unhealthful and uninhabitable : if these conditions are complied with in respect to execution, the public and the property owners here will be saved from the disasters which have befallen men of the same class in other sections of the city where these judicious rules have not received sufficient attention.

It may be assumed that during the next ten years the population of this metropolis will increase by numbers varying from 20,000 to 40,000 in each year. During the ten years from 1860 to 1870 the growth in population of Kings and Westchester counties, and the New Jersey border counties, was from 666,495 to 1,000,616, and of New York city from 813,669 to 942,292. In the competition for this future growth, if this region is so treated as to develop its natural advantages, it will have a chance for the largest and the best share. It contains an area



of 22 square miles, and its present population is about 40,000. At the rate of 10,000 to each square mile it would contain 220,000. Within the next ten years the natural growth of population will supply such numbers, and at such a density the region would be fairly occupied and settled as a villa suburb. There may be such an inflow of population, and if it comes, it will require the adoption of a plan for this region and substantial progress in carrying it out. It may, then, fairly be assumed that, if progress be made in preparing this region for occupation at such a rate as has been indicated, it will not be much in advance of the stream of population. But this has not to be decided now. When the plan is adopted its rapidity of execution can be made to depend upon the actual demand for the property.

#### XVIII.—*Conclusion.*

These statements are submitted without argument. The support which could be given to them by illustrations from other cities, by statistics and by the fundamental considerations of administrative and social economy toward which they plainly point, at present I refrain from, but the material to establish them to the satisfaction of any reflective mind interested in the best methods of administration, will not be wanting whenever there shall be occasion for them.

In this investigation I have to acknowledge the unfruitfulness of the materials gathered upon these subjects in certain papers and documents of this department. They supply great collections of undigested information which did not lead their author to results of practical value, and furnish no assistance in that direction to any one else. They rather misled the public into supposing that the measures which were adopted were the outcrop of all these investigations, and that nothing more practical and more effectual could be done. It is not without due hesitation that the conclusions are now reached that plans have been adopted when the necessary conditions were not comprehended; that works have been provided for in them on such a scale of expense as in themselves to be bar-

riers to progress, and others such as it is not now and never will be profitable to any one to construct. The necessary result of this was, that no power could be put into the execution of such plans, and that the undecided, procrastinating, obstructive policy has prevailed, which has proved so disastrous to the public interests. I refrain from mentioning the numerous illustrations of these deficiencies.

An examination of the plans now before the Board, proposed for the laying out of certain sections of this region into streets, has led me to the conclusion that they do not meet all of the requirements nor comprehend all the conditions of the problem. A perusal of what is here presented will indicate in a general way the nature of my objections to them. Their merit in certain respects is not impeached, but they are not adequate.

Respectfully submitted,

WM. R. MARTIN.

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The following preamble and resolution were adopted at a meeting of the Board of the Department of Public Parks, held March 30th, 1875 :

*Whereas*, The communication of Commissioner Martin, presented to the Board at their meeting on 19th March, 1875, in relation to the best method of treating the section of the city north of 155th street and the Harlem River, having been read and considered :

*Resolved*, That the said communication be ordered to be printed as a document of the Board, with the understanding that the Board does not in any way commit itself to the policy therein laid down or to the conclusions at which the author has arrived, but only with the view of submitting the whole subject for such public consideration and discussion as the character of the suggestions ~~may~~<sup>will</sup> naturally call forth.

WM. IRWIN,  
Secretary, D. P. P.