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NO. 956.

INSTITUTE OF LEGAL STUDIES

Court of King's Bench

(APPEAL SIDE)

On appeal from a judgment of the Superior Court, for the
Province of Quebec, (District of Montreal), rendered
by the Honourable Mr. Justice Mercier,
November 23rd, 1934.

The People of the State of New York,

(Plaintiffs in the Court below)

APPELLANTS

—vs—

Heirs of the late John M. Phillips,

(Defendants in the Court below)

— & —

***The Crown Trust Company et al.,
es-qual., for the Heirs of the
late Francis Phillips,***

Defendants severing in their defence
and en reprise d'instance.

RESPONDENTS

—&—

The Montreal Safe Deposit Company,

TIERS-SAISIS

C A S E**VOLUME 8. — PAGES 3501. TO 4000.****BERTRAND, GUERIN, GOUDRAULT and GARNEAU,**

Attorneys for Appellants.

COOK, MAGEE, NICHOLSON and O'DONNELL,

Attorneys for the Heirs of the late
John M. Phillips, Respondents.

HACKETT, MULVENA, FOSTER, HACKETT and HANNEN,

Attorneys for The Crown Trust Company et al., es-qual.,
for the Heirs of the late Francis Phillips, Respondents.

J.-D. de LAMIRANDE et Cie, 4557 rue St-Denis, Montréal.

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TIERS-SAISIS

C A S E

EXHIBIT C-19. (continued).

Gasket and mortar joints.

- 10 156. Gasket and mortar joints shall be made in the following manner: A closely twisted hemp or oakum gasket of suitable diameter, in no case less than $\frac{3}{4}$ -inch, and in one piece of sufficient length to pass around the pipe and lap at the top, shall be solidly rammed into the annular space between the pipes with a suitable calking tool. Before being placed, the gasket shall, if desired, be saturated with neat cement grout. The remainder of the space shall then be completely filled with plastic mortar mixed 1 to $1\frac{1}{2}$, and the joint wiped inside and finished to a smooth bevel outside.

Inspection of joints.

- 20 157. Unless otherwise permitted, at least 4 finished joints shall be left exposed for inspection throughout the working day, and the necessary staging for the protection of the exposed sewers and for the handling of excavated material shall be provided. A suitable ladder affording easy access for such inspection shall be furnished at every trench open for the proposed sewer.

Subgrade to be tested.

158. No pipe shall be laid or placed until the subgrade of the trench shall have been tested and found correct.

- 30 Sewer to be kept clean.

159. The interior of the sewer shall, as the work progresses, be cleared of all dirt, cement and superfluous materials of every description.

Backfilling.

- 40 160. Immediately after the sewer is laid the trench shall be backfilled as provided in paragraphs 29 to 37 inclusive and 157. No walking on or working upon the completed sewer (except as may be necessary in tamping the backfilling) will be permitted until the trench has been backfilled to a height of at least 2 feet over the top of the sewer.

EXHIBIT C-19. (*continued*).

Temporary covers.

161. The exposed ends of pipe sewers shall be provided with approved temporary covers fitted to the pipe so as to exclude earth and other materials.

10 Branch pipes.

162. Branch pipes and connection pipes shall be of the same quality and dimensions, and laid in the same manner as specified for vitrified pipe sewers. Dead ends of pipes shall be closed with bulkheads of brick masonry 8 inches in thickness.

Connection with existing work.

20 163. Wherever the proposed sewer is to connect with an existing manhole in which there is a branch pipe which is damaged or of unsuitable size or in improper position, such pipe shall be removed and be replaced with a pipe of suitable size or be reset in the proper position. The pipe so substituted or reset will be paid for at the contract price, for the corresponding size of pipe sewer.

Pipes cut to fit masonry.

30 164. The ends of pipes which enter masonry shall be neatly cut to fit the face of the masonry. When directed, such cutting shall be done before the pipes are built in.

Measurement.

165. The length of pipe sewers to be paid for will be determined by horizontal measurements along their center lines, and no deductions will be made on account of openings at manholes, and the measurements will be made to the inside face of all chambers.

40 Prices to cover.

166. The contract prices for vitrified pipe sewers shall cover the cost of all necessary excavation (except rock); of all necessary trimmings, fittings and building into masonry; of all bulkheads; of all backfilling; of all samples furnished; and of all labor and materials required to furnish and lay the sewers complete in place, as shown on the plan and as specified.

EXHIBIT C-19. (continued).

CAST IRON PIPE SEWERS.

Cast iron pipe.

10 167. Cast iron pipe for sewers shall conform with the requirements of the latest revised Standard Specifications for Cast Iron Pipe adopted by the American Society for Testing Materials, and all tests required shall be made in accordance therewith.

168. The thickness of shell and weight of the several classes of pipe, and the allowable variations of diameter and weight shall be as follows:

20	Nominal Inside Diam. Ins.	Class A 100 Ft. Head 43 Lbs. Pressure		Class B 200 Ft. Head 80 Lbs. Pressure		Class C 300 Ft. Head 130 Lbs. Pressure		Allowable Variations	
		Thick-ness Ins.	Weight	Thick-ness Ins.	Weight	Thick-ness Ins.	Weight	Diameter	Weight
	4...	0.40	240	0.45	260	0.48	280	0.06 in.	5 per cent.
	6...	0.44	370	0.48	400	0.51	430	0.06 "	5 " "
	8...	0.46	515	0.51	570	0.56	625	0.06 "	5 " "
	10...	0.50	685	0.57	765	0.62	850	0.06 "	5 " "
	12...	0.54	870	0.62	985	0.68	1,100	0.06 "	5 " "
	14...	0.57	1,075	0.66	1,230	0.74	1,400	0.06 "	5 " "
30	16...	0.60	1,300	0.70	1,500	0.80	1,725	0.06 "	5 " "
	18...	0.64	1,550	0.75	1,800	0.87	2,100	0.08 "	4 " "
	20...	0.67	1,800	0.80	2,100	0.92	2,500	0.08 "	4 " "
	24...	0.76	2,450	0.89	2,800	1.04	3,350	0.08 "	4 " "
	30...	0.88	3,500	1.03	4,000	1.20	4,800	0.10 "	4 " "
	36...	0.99	4,700	1.15	5,450	1.36	6,550	0.10 "	4 " "
	42...	1.10	6,150	1.28	7,100	1.54	8,600	0.10 "	4 " "
	48...	1.26	8,000	1.42	9,000	1.71	10,900	0.12 "	4 " "
	54...	1.35	9,600	1.55	11,200	1.90	13,700	0.15 "	4 " "
	60...	1.39	11,000	1.67	13,250	2.00	16,100	0.15 "	4 " "

40 The above weights are for 12 feet laying lengths and standard sockets; proportionate allowance will be made for any variation therefrom.

Variation in thickness.

169. For pipes whose standard thickness is less than 1 inch, the thickness of metal in the body of the pipe shall not be

EXHIBIT C-19. (*continued*).

more than 0.08 inch less than the standard thickness; and for pipes whose standard thickness is 1 inch or more, the variation shall not exceed 0.10 inch, except that for areas not exceeding 8 inches in any direction, variations from the standard thickness of 0.02 inch in excess of the allowance above given will be permitted.

10 Coating.

170. All cast iron pipe shall be thoroughly and evenly coated inside and outside with coal tar pitch varnish. The coating shall be smooth, tough and tenacious when cold and shall not be brittle or have any tendency to scale off.

Marking.

20 171. The weight and class letter shall be conspicuously painted by the manufacturer with white oil paint on the inside of each pipe after the coating is hard.

172. Joints of cast iron pipe sewers shall be of the kinds shown on the plan.

Lead joints.

30 173. When lead joints are required, the inner portion of the annular space between the pipes shall be packed with clean, sound jute packing yarn, and the remaining portion shall be run full of pure soft lead and calked with suitable tools. Unless otherwise shown on the plan the depths of the lead joints shall be $2\frac{1}{2}$ inches for 6-inch to 8-inch pipe, 3 inches for 12-inch to 24-inch pipe and $3\frac{1}{2}$ inches for 30-inch to 48-inch pipe.

Mortar joints.

40 174. When gasket and mortar joints or plain mortar joints are required they shall be made as specified in paragraphs 184 and 185.

175. All the requirements, as hereinbefore specified, relating to excavation, laying, backfillings and measurement of vitrified pipe sewers shall apply, as far as they are applicable, to cast iron pipe sewers.

EXHIBIT C-19. (*continued*).

Prices to cover.

176. The contract prices for cast iron pipe sewers shall cover the cost of all necessary excavation (except rock); of all bulkheads of all backfilling; and of all labor and materials required to furnish and lay by the sewers complete in place, as shown on the plan and as specified.

10

BASIN CONNECTIONS.

177. The connections between inlets and basin manholes and between basin manholes and sewers or sewer manholes shall be of vitrified pipe of the size shown on the standard details on file in the Engineer's Office, Bureau of Engineering-Construction, Division of Sewers. The pipes shall be of the same quality and dimensions, and laid in the same manner as hereinbefore specified for vitrified pipe sewers.

20

Measurement.

178. The lengths of basin connections to be paid for will be determined by measurements along their axes.

Prices to cover.

179. The contract price for basin connections shall cover the cost of all necessary excavation (except rock); of all necessary trimming, fitting and building into concrete, or masonry; of all backfilling; and of all labor and materials required to furnish and lay the basin connections complete in place as specified.

30

SPURS FOR HOUSE CONNECTIONS.

180. Spurs for house connections shall be of vitrified pipe 6 inches in diameter, equal in quality and dimensions to that specified for vitrified pipe sewers.

40

In concrete sewers.

181. In concrete sewers spurs shall be built in as shown on the plan or as directed. They shall be hub and spigot pipes

EXHIBIT C-19. (*continued*).

with the spigot end molded or cut to fit flush with the inner surface of the sewer, and of sufficient length to reach the exterior of the sewer.

In pipe sewers.

- 10 182. Pipes having 6-inch spurs with hubs molded thereon shall be furnished and laid in pipe sewers where shown on the plan or directed. Such pipes will be paid for at the contract prices for vitrified pipe sewers, and the spurs will be paid for in addition at the contract price for spurs.

Covers.

- 20 183. The ends of all spurs not connected with drains shall be closed with approved covers. If required such covers shall be cemented in place, and when directed the covers shall be so cemented before the pipes are lowered into the trench.

Price to cover.

184. The contract price for spurs shall cover the cost of all labor and materials required to furnish and place the same as specified, and the cost of furnishing and cementing the covers for the same.

30

DRAINS FOR HOUSE CONNECTIONS.

185. Where shown on the plan or where directed, drains for house connections shall be built from the spurs in such a manner and for such distance as may be shown or directed.

Depth at curb.

- 40 186. House connections drains shall be laid with a minimum gradient of $\frac{1}{4}$ inch to a foot, and wherever possible the depth from curb grade to the inner bottom of the drain at curb line shall be at least 8 feet.

Material.

187. Unless otherwise shown on the plan, drains for house connections shall be of vitrified pipe of the quality and dimen-

EXHIBIT C-19. (continued).

sions specified for vitrified pipe sewers. The ends of the drains shall be closed with approved covers.

How laid.

- 10 188. All the requirements, as hereinbefore specified, relating to excavation, laying and backfilling of vitrified pipe sewers shall apply, as far as they are applicable, to drains for house connections.

Measurement.

189. The lengths of pipe drains for house connections to be paid for will be determined by measurement along their axes.

Price to cover.

- 20 190. The contract price for drains for house connections shall cover the cost of all necessary excavation (except rock); the cost of all backfilling; the cost of all covers, bends and specials required; and the cost of all labor and materials required to furnish and lay the drains for house connections complete in place, as specified.

RISERS.

30

191. Where shown on the plan or where directed risers for house connections shall be built from the spurs in such a manner and to such height as may be shown or directed. Unless otherwise shown on the plan they shall be of vitrified pipe of the quality and dimensions hereinbefore specified for vitrified pipe sewers. They shall be supported and surrounded by concrete as shown, and each shall be closed with an approved cover.

40 Measurement.

192. The lengths of risers to be paid for will be determined by measurements along their axes.

Price to cover.

193. The contract price for risers shall cover the cost of all necessary excavation (except rock); the cost of all concrete

EXHIBIT C-19. (continued).

used in connection with the risers; the cost of all backfilling; the cost of all covers, bends and specials required; and the cost of all labor and materials required to construct the risers complete in place, as specified.

MANHOLES.

10

194. The masonry or concrete for manholes shall be built to within such distances of the existing surface of the ground as directed.

Brick manholes.

20

195. Brick manholes shall be formed by means of templets placed at top and bottom with not less than 8 lines drawn between them, and they shall be smoothly and evenly plastered on the outside with a layer of mortar $\frac{1}{2}$ inch thick.

Concrete manholes.

196. Concrete manholes shall be built of the materials, sizes and dimensions shown on the plan.

Steps.

30

197. Galvanized wrought iron steps of the size and shape shown on the plan shall be firmly built into the manholes at vertical intervals of about 16 inches.

Head and cover.

40

198. The manhole head and cover shall be of cast iron, and unless otherwise shown on the plan, each head, exclusive of cover, shall weigh not less than 500 pounds and each cover shall weigh not less than 160 pounds. The weight of each head and cover shall be conspicuously painted thereon by the manufacturer with white oil paint. The head shall be set on the masonry or concrete in a full bed of stiff mortar.

Price to cover.

199. The contract price for manholes shall cover the cost of all necessary excavation (except rock); of all backfilling; of

EXHIBIT C-19. (continued).

all plastering; of all bluestones; of all concrete slabs; of all steps; and of all labor and materials required to construct the same complete, in place, as shown on the plan and specified.

BASIN MANHOLES

10

Brick basin manholes.

200. Brick basin manholes shall be formed by means of templets placed at top and bottom with not less than 10 vertical lines drawn between them.

20

201. Where the walls of brick basin manholes are not built of two rings of brickwork with a mortar layer between, the inside of the brickwork shall be smoothly and even plastered with a layer of 1 — 2 Portland cement mortar $\frac{1}{2}$ inch thick.

202. Where the wall of the basin manhole consists of two rings of brickwork, with a mortar layer between, the outer ring shall be carried up not less than 1 foot in advance of the inner ring, and the inner surface of the former shall be plastered with two coats of mortar. The second coat of mortar shall be applied before the first is set, and the total thickness of the mortar layer shall be 1 inch.

30

Concrete basin manholes.

203. Concrete basin manholes shall, if required, be built in such a manner that the bottom and sidewalks shall be formed in one continuous operation. Concrete basins shall be coated with a grout of neat cement on the inside.

Concrete cover slabs.

40

204. Concrete cover slabs of basin manholes shall be built of Class "A" concrete, reinforced as shown on plan.

Head cover and trap.

205. The basin manhole head and cover shall be of cast iron, as shown on plan, and known as a Standard Sidewalk Manhole Head and Cover. Each head exclusive of cover shall weigh

EXHIBIT C-19. (continued).

not less than 260 pounds and each cover shall weigh not less 100 pounds. An iron hood or trap, of the size and dimensions shown on the plan, must be furnished by the Contractor for each basin manhole and is to be built into the basin manhole, as shown on plan.

10 Restoration of sidewalks, curbs, etc.

206. All sidewalk pavements and curbs, disturbed by the construction of basin manholes, shall be restored by the Contractor in accordance with the specifications for similar work of the Bureau of Highways.

Price to cover.

20 207. The contract price for basin manholes shall cover the cost of all necessary excavation (except rock); of all back-filling; of all sidewalk and curb restorations and of all labor and materials required to construct the basin manholes complete in place, as shown on the plan and specified.

INLETS.

30 208. Inlets and the heads therefor shall be of the materials, forms and dimensions shown on the plan. The specifications for brickwork and concrete shall be those hereinbefore specified for basin manholes.

Heads.

209. The head shall be of cast iron and shall conform in all respects to the specifications for iron castings. If required, the inlets shall be closed with bulkheads of brick masonry and such bulkheads shall be removed when directed.

40 Restoration of roadway pavements, etc.

210. All roadway pavements, sidewalk pavements and curbs, disturbed by the construction of inlets, shall be restored by the Contractor in accordance with the specifications of the Bureau of Highways for similar work or specifications hereafter attached. In unpaved streets and macadamized streets where

EXHIBIT C-19. (*continued*).

the inlets are approximately at the surface of the street a space of two and one-half ($2\frac{1}{2}$) feet adjoining such inlets shall, if required, be paved with approved paving blocks.

Price to cover.

- 10 211. The contract price for inlets shall cover the cost of all necessary excavation (except rock); of all backfilling; of the temporary brick bulkheads in the mouths of the inlets, when required; of all roadway, sidewalk and curb restorations; of all labor and materials required to construct the inlets, complete in place, as shown on the plan and specified.

EMBANKMENT.

- 20 Quality.

- 30 214. Where indicated on the plan, embankment shall be made of the form and dimensions shown. It shall consist of clean steam ashes or filling of the quality specified in paragraph 30, which shall contain no stone over 6 inches in its largest dimension. When the material forming the embankment contains stones, the latter shall be so distributed through the mass that all interstices are filled with fine material, and the material within 2 feet of the sewer shall be free of stones. When embankment is used as foundation it shall consist entirely of filling of the quality specified in paragraph 29.

How made.

- 40 215. The embankment shall be deposited and spread in horizontal layers to such an extent and at such times as may be directed. If required, such portion of the embankment as may be deemed necessary shall be made prior to the construction of the sewer or its foundation and any excavation that may be necessary for the building of the sewer and its foundation shall be made therein. When embankment is used as a foundation, the ground on which it is to be made shall be prepared by grubbing and clearing, and removing all improper material. Embankment used as foundation shall be deposited in uniform horizontal layers not exceeding 1 foot in depth, and each layer shall be thoroughly compacted by rolling or tamping or both; such embankment shall

EXHIBIT C-19. (*continued*).

not be built upon until the expiration of days after its completion.

Approaches.

10 216. Where the embankment obstructs or interferes in any way with any public or private roadway the Contractor shall furnish and place all material necessary to provide suitable approaches, of such widths and to such extent as shown on the plan or as directed.

217. All embankment and approaches shall be maintained at their full dimensions until the completion of this contract.

Cost covered.

20 218. The cost of all labor and materials required to prepare the ground, to make the embankment and approaches as specified, to make all necessary excavations and backfilling therein, and to maintain the embankments and approaches at their designated dimensions until the completion of this contract, shall be covered by the contract prices for the structures over or in connection with which they are made.

RESTORATION OF SURFACE AND CLEANING UP.

30

Restoration of unpaved roadways, sidewalks, etc.

219. At such time as may be directed, all unpaved roadways, gutters and sidewalks affected by the work done under this contract shall be restored by the Contractor to the same condition in which they were at the time of the opening of bids for this contract.

40 · Pavements, etc., restored by Contractor.

220. If required by the plan, roadway and sidewalk pavements, crosswalks, curbs, etc., shall be satisfactorily restored and adjusted by the Contractor at such times as may be directed. Sidewalk pavements shall be restored in whole flags, squares or sections which shall correspond in quality and appearance with the original or adjoining flags, squares or sections. All work

EXHIBIT C-19. (*continued*).

and materials used in such restoration and adjustment shall conform in all respects to the standard specifications now in use by the President for similar work and materials.

Temporary restoration.

- 10 222. At such times as may be directed roadway and sidewalk pavements, crosswalks, curbs, etc., which have been removed, whether under guarantee or not, shall be temporarily restored by the Contractor to the satisfaction of the Engineer.

When new pavement is laid.

- 20 223. If pavement, sidewalks, crosswalks, curbs, etc., are laid where none existed at the time the bids for this contract were opened, the Contractor shall excavate and remove such portions of the pavements, sidewalks, crosswalks, curbs, etc., and their foundations as may be necessary for the prosecution of the work, but he will not be required to make a permanent restoration of them.

Trenches flooded.

- 30 224. Before laying any pavements, sidewalks, crosswalks, curbs, etc., the trenches shall, if required, be flooded with water, as directed, and all resulting holes or depressions shall be filled and tamped solid.

Cleaning up.

- 40 225. At such times as may be directed the Contractor shall remove from the streets, all materials which were placed thereon by him as a consequence of performing this work and which are not required by the contract to be left as part of the finished work. The entire work and portions of the streets affected thereby shall be left in a satisfactory condition. The sidewalks and crosswalks shall be swept clean of all material which may have come thereon by reason of the work under this contract, and if required, they shall be sprinkled with water during the sweeping.

EXHIBIT C-19. (continued).

Cost to be covered.

226. The cost of all the labor required to be done and all the materials required to be furnished in the performance of all the work specified in paragraphs 219 to 225 inclusive, shall be covered by all the contract prices for all the items for which there are contract prices.

10

The Granite Block on Sand foundation in 69th (Fisk Avenue) Street disturbed by this contract is to be relaid by the contractor in accordance with the specifications of the Bureau of Highways and to the satisfaction of the Engineer in charge of that Bureau. See note on plan.

20

30

40

EXHIBIT C-147.

EXHIBIT C-147.

10 (17 cheques paid to John M. Phillips for pipe, March 17, 1924
to July 13, 1927).

Flushing, N. Y. Feb. 13th, 1924

No. 2537

THE FLUSHING NATIONAL BANK 1-438
Queens Borough, City of New York.

Pay to the order of John M. Phillips \$2497.00
Insured two thousand four hundred ninety seven Dollars

20

HAMY L. SMITH

Trea.

Kennedy & Smith, Inc.

COVERT F. SMITH,

Pres.

PAID 2-15-24 1-438

30

(Back of the check)

JOHN M. PHILLIPS

JOHN M. PHILLIPS

CORN EXCHANGE BANK

New York

Flushing Branch

FEB 15 1924

40

Pay to the order of the
CITY EXCHANGE BANK BRANCH

4 Collecting this item 4

Queens County Branch

FEB 14 1924

EXHIBIT C-147 (*continued*).

Flushing, N. Y., March 17, 1924

No. 2594

THE FLUSHING NATIONAL BANK 1-438
Queens Borough, City of New York

Pay to the order of John M. Phillips \$1173.25

10 Insured Eleven hundred seventy three Dollars Twenty five cents

Kennedy & Smith, Inc.

HAMY L. SMITH,
Treas.

COVERT F. SMITH,
Pres.

PAID 3-19-24 1-438

20

(*Back of the check*)

For deposit

JOHN M. PHILLIPS

30

CORN EXCHANGE BANK
New York
Flushing Branch
MAR 19 1924
PAID

Pay to the order of the
CITY EXCHANGE BANK BRANCH
4 Collecting this item 4
Queens County Branch
MAR 18 1924

40

EXHIBIT C-147 (*continued*).

THE QUEENSBORO NATIONAL BANK 1-449
of the City of New York

Corona, N. Y. City, May 20, 1924 No. 70

Pay to the order of John M. Phillips \$1255.90

10

Insured Twelve hundred fifty five Dollars ninety Cents

Collectible at par through the Federal Reserve Bank of N Y.

Kennedy & Smith, Inc.

Member Federal Reserve System

20

HAMY L. SMITH, COVERT F. SMITH,
Treas. Pres.

PAID 5-21-24

(*Back of the check*)

30

JOHN M. PHILLIPS

THE CORN EXCHANGE BANK
MAY 21, 1924
PAID

40

Pay to the order of the
CITY EXCHANGE BANK BRANCH
4 Collecting this item 4
Queens County Branch
MAY 20 1924

EXHIBIT C-147 (*continued*).

New York City May 7 1925 No. 1292

7 BANK OF THE MANHATTAN COMPANY 1-2
At Flushing

Pay to the order of John M. Phillips \$1200.00

10

Insured Twelve hundred Dollars insured

Kennedy & Smith, Inc.

HAMY L. SMITH,
Treas.

COVERT F. SMITH,
Pres.

PAID 5-14-25

20

(*Back of the check*)

JOHN M. PHILLIPS

STEPHEN E. PAGE

30

CASHED No. 1

40

EXHIBIT C-147 (*continued*).

New York City May 11 1925 No. 1312

7 BANK OF THE MANHATTAN COMPANY 1-2
 At Flushing

10 Pay to the order of John M. Phillips \$2000.00
 Insured Two thousand Dollars

Kennedy & Smith, Inc.

HAMY L. SMITH,
 Treas.

 COVERT F. SMITH,
 Pres.

PAID 5-14-25

20

(*Back of the check*)

JOHN M. PHILLIPS

CASHED No. 1

30

40

EXHIBIT C-147 (continued).

New York City June 1st 1925 No. 1363

7 BANK OF THE MANHATTAN COMPANY 1-2
At Flushing

Pay to the order of John M. Phillips \$9000.00

10 Nine Hundred 00-100 ——— Dollars

Kennedy & Smith, Inc.

HAMY L. SMITH,
Treas.

COVERT F. SMITH,
Pres.

PAID 6-3-25

20

(Back of the check)

For deposit

JOHN M. PHILLIPS

30

40

EXHIBIT C-147 (*continued*).

KENNEDY & SMITH, INC.
93 Amity Street, Flushing, N. Y.

7 No. 1511

10 Pay to the order of John M. Phillips July 27 1925
\$5000.00
Insured Five Thousand Dollars ———— Dollars

Kennedy & Smith, Inc.

BANK OF THE MANHATTAN COMPANY
At Flushing COVERT F. SMITH, Pres.

1-2 New York City HAMY L. SMITH, Treas.

20

PAID 7-29-25

(*Back of the check*)

30

For deposit

JOHN M. PHILLIPS

40

EXHIBIT C-147 (*continued*).

KENNEDY & SMITH, INC.
93 Amity Street, Flushing, N. Y.

7 No. 1585

Aug 29 1925

10 Pay to the order of John M. Phillips \$8000.00

Insured Eight Thousand Dollars — — — Dollars

Kennedy & Smith, Inc.

BANK OF THE MANHATTAN COMPANY

At Flushing

COVERT F. SMITH, Pres.

20 1-2 New York City

HAMY L. SMITH, Treas.

PAID 9-1-25

30 (Back of the check)

For deposit

JOHN M. PHILLIPS

40

EXHIBIT C-147 (*continued*).

KENNEDY & SMITH, INC.
93 Amity Street, Flushing, N. Y.

7 No. 1664

Sept. 23 1925

10

Pay to the order of John M. Phillips

\$12700.00

Insured Twelve Thousand Seven Hundred Dollars — Dollars

Kennedy & Smith, Inc.

BANK OF THE MANHATTAN COMPANY

20

At Flushing

COVERT F. SMITH, Pres.

1-2 New York City

HAMY L. SMITH, Treas.

PAID 9-24-25

30

(Back of the check)

JOHN M. PHILLIPS

40

EXHIBIT C-147 (*continued*).

KENNEDY & SMITH, INC.
93 Amity Street, Flushing, N. Y.

7 No. 1767

Nov. 11 1925

10 Pay to the order of John M. Phillips \$5868.00

Insured Five Thousand Eight Hundred Sixty Eight Dollars

Kennedy & Smith, Inc.

BANK OF THE MANHATTAN COMPANY

20 At Flushing COVERT F. SMITH, Pres.
1-2 New York City HAMY L. SMITH, Treas.

PAID 11-12-25

30
(Back of the check)

JOHN M. PHILLIPS

40

EXHIBIT C-147 (*continued*).

KENNEDY & SMITH, INC.
93 Amity Street, Flushing, N. Y.

7 No. 1889

Dec 15 1925

10 Pay to the order of John M. Phillips \$6026.00

Insured Six Thousand Twenty Six Dollars — — Dollars

Kennedy & Smith, Inc.

BANK OF THE MANHATTAN COMPANY

20 At Flushing COVERT F. SMITH, Pres.
1-2 New York City HAMY L. SMITH, Treas.

PAID 12-16-25

30 (Back of the check)

For deposit

JOHN M. PHILLIPS

40

EXHIBIT C-147 (*continued*).

KENNEDY & SMITH, INC.

Flushing, N. Y.

7 No. 2321

Bradford Ave. & Henry Street

July 30 1926

10 Pay to the order of John M. Phillips \$18000.00

F252825 Eighteen Thousand Dollars F252825 — Dollars

Kennedy & Smith, Inc.

BANK OF THE MANHATTAN COMPANY

At Flushing

COVERT F. SMITH, Pres,

20 1-2 New York City

HAMY L. SMITH, Treas.

PAID 8-3-26

30

(*Back of the check*)

For deposit

JOHN M. PHILLIPS

40

EXHIBIT C-147 (*continued*).

KENNEDY & SMITH, INC.
Flushing, N. Y.

7 No. 2359

Bradford Ave. & Henry Street

Pay to the order of John M. Phillips \$5,679.44

10 F252825 Forty Five Thousand Six Hundred Twenty

Nine Dollars Forty Four Cents

Kennedy & Smith, Inc.

BANK OF THE MANHATTAN COMPANY

20 At Flushing COVERT F. SMITH, Pres.
1-2 New York City HAMY L. SMITH, Treas.

PAID 8-14-26

30

(*Back of the check*)

JOHN M. PHILLIPS

40

EXHIBIT C-147 (*continued*).

KENNEDY & SMITH, INC.
Flushing, N. Y.

7 No. 2493

Bradford Ave. & Henry Street

Oct. 11 1926

10 Pay to the order of John M. Phillips \$29100.00

F252825 Twenty Nine Thousand One Hundred Dollars F252825

Kennedy & Smith, Inc.

BANK OF THE MANHATTAN COMPANY

At Flushing

COVERT F. SMITH, Pres.

1-2 New York City

HAMY L. SMITH, Treas.

20

PAID 10-13-26

(*Back of the check*)

30

For deposit

JOHN M. PHILLIPS

40

EXHIBIT C-147 (*continued*).

KENNEDY & SMITH, INC.
Flushing, N. Y.
Bradford Ave. & Henry Street

No. 3527

Oct. 11, 1926

10 Pay to the order of John M. Phillips \$9377.96
F252825 Nine Thousand Three Hundred Seventy Seven Dollars
Ninety Six Cents

Kennedy & Smith, Inc.

To THE FLUSHING NATIONAL BANK

COVERT F. SMITH, Pres.

20 1-438 Flushing, N. Y.

HAMY L. SMITH, Treas.

PAID 10-13-26 1-438

30

(*Back of the check*)

For deposit

JOHN M. PHILLIPS

for Endorsements Guaranteed
1926 13 OCT 1-2

40

EXHIBIT C-147 (*continued*).

BANK OF THE MANHATTAN COMPANY
Flushing, N. Y.

KENNEDY & SMITH, INC.
Flushing, N. Y.
Bradford Ave. & Henry Street

7 No. 3097

10

July 1, 1927

Pay to the order of John M. Phillips \$40000.00

F252825 Forty Thousand Dollars F252825 ———— Dollars

Kennedy & Smith, Inc.

BANK OF THE MAHATTAN COMPANY

20

At Flushing

COVERT F. SMITH, Pres.

1-2 New York City

HAMY L. SMITH, Treas.

PAID 7:25-27

30

(Back of the check)

For deposit

JOHN M. PHILLIPS

40

EXHIBIT C-147 (*continued*).

KENNEDY & SMITH, INC.
Flushing, N. Y.
Bradford Ave. & Henry Street

7 No. 3138

July 13 1927

10 Pay to the order of John M. Phillips \$42500.00

F252825 Forty Two Thousand Five Hundred Dollars F252825

Kennedy & Smith, Inc.

BANK OF THE MANHATTAN COMPANY

At Flushing

COVERT F. SMITH, Pres.

20 1-2 New York City HAMY L. SMITH, Treas.

PAID 7-14-27

30

(*Back of the check*)

For deposit

JOHN M. PHILLIPS

40

EXHIBIT C-34

(Summary Sheet of Type A Bids on contract C-33).

President of the Borough of Queens—Bureau of Sewers SUMMARY OF PROPOSALS

No. 1

Lowest Bidder PATRICK McGOVERN INC. Contract Awarded to _____ Date _____

For the construction of a sewer and appurtenances in HAMMELS BOULEVARD, from Beach Channel Drive to Amstel Avenue, and in AMSTEL AVENUE, from Hammels Boulevard to Beach 62nd Street, Fifth Ward, Borough of Queens.		4,650 Lin. Ft. 6" Or Redd. Conc. Sewer, Complete, including capping & bedding 1,892 Lin. Ft. 4" 6" Rein. Conc. Sewer, Complete, including capping & bedding 22 Manholes, Complete, including capping & bedding 6 Chambers, Complete, including capping & bedding 7 1/4 Vertical, Explosive of Piles. 22,600 Lin. Ft. of 6" O.I. Pipe (Class "A") Riser 22 Special Manholes, including connections between old and new sewers, Complete, (as shown) 1,750 Cubic Yards Fill to established grade 100 Lin. Ft. 10" Vitrified Pipe Sewer, laid in place 300 Lin. Ft. 12" Vitrified Pipe Sewer, laid in place 200 Lin. Ft. 16" Vitrified Pipe Sewer, laid in place 100 Lin. Ft. 24" Vitrified Pipe Sewer, laid in place	Time Allowed
Bids opened on	AUGUST 12, 1924.		No. of Working Days
Surities \$	400,000.00		350
Deposit \$	20,000.00		
Engineer's Estimate	\$749,116.00-		

BIDDER	TOTAL AMOUNT	UNIT PRICES												REMARKS	
PATRICK McGOVERN INC.	805,151.40	96.00	92.	300.	1900.	10.50	7.70	600.	2.00	1.00	5.10	5.25	5.75	7.50	
PAINO BROS.	962,825.12	119.25	105.6	755.	3000.	2.75	10.00	740.	1.50	.01	5.00	5.00	6.00	7.00	
JOHN D. WALSH INC.	1,180,575.90	165.	145.	650.	3350.	5.40	4.80	700.	1.45	.70	2.10	2.75	3.50	7.30	
HAMLEN CONST. CO.	1,261,685.00	165.	160.	500.	5000.	10.00	8.00	1000.	1.50	1.00	10.00	11.00	12.00	16.00	

EXHIBIT C-35

(Summary Sheet of Type B Bids on contract C-33).

**President of the Borough of Queens—Bureau of Sewers
SUMMARY OF PROPOSALS**

Lowest Bidder PATRICK MC GOVERN INC. Contract Awarded to _____ Date _____

For the construction of a sewer and appurtenances in HAMMELS BOULEVARD, from Beach Channel Drive to Amstel Avenue, and in AMSTEL AVENUE, from Hammels Boulevard to Beach 62nd Street, Fifth Ward, Borough of Queens.		4 (650 Lin. Ft. 54" Rein. Conc. Pipe sewer 1,822 Lin. Ft. 42" Rein. Conc. Pipe sewer 42 Manholes 44" dia. 4' deep 5 Chambers Complete exclusive of detail, copying and decking 1,764 Vertical Feet 6" C.I. Pipe (Class "A") 22,600 Lin. Ft. 6" C.I. Pipe (Class "A") 22 Special Manholes including connections between old and new sewer, complete, (as shown) 1,760 Cubic Yards Cut to established grade 7,250 Cubic Yards Fill to established grade 100 Lin. Ft. 10" Vertified Pipe Sewer, laid in place 100 Lin. Ft. 12" Vertified Pipe Sewer, laid in place 100 Lin. Ft. 15" Vertified Pipe Sewer, laid in place 100 Lin. Ft. 24" Reinforced Concrete Pipe Sewer (precast type) concrete pipe	Time Allowed
Bids opened on	AUGUST 12, 1924.		No. of Working Days 550
Sures \$	400,000.00		
Deposit \$	20,000.00		
Engineer's Estimate	\$749,116.00		

BIDDER	TOTAL AMOUNT	UNIT PRICES													REMARKS
PATRICK MC GOVERN INC.	1,072,747.40	182.	130.	800.	1900.	70.85	7.70	600.	2.00	1.00	5.10	5.25	5.75	11.50	
JOHN D. WALSH INC.	1,106,723.90	150.	132.	650.	3350.	5.60	4.80	700.	1.45	1.70	2.70	2.75	3.50	7.80	
HANNEY CONST. CO.	1,196,465.00	153.	150.	600.	5000.	70.00	8.00	1000.	1.50	1.00	10.00	11.00	12.00	16.00	

EXHIBIT C-73.

EXHIBIT C-73.

(Letter signed by John M. Phillips, August 12, 1924).

Letting August 12th, 1924.

- 10 Hammels Boulevard from Beach Channel Drive to Amstel Ave.,
etc., Fifth Ward, Borough of Queens.

Dear Sir:—

I beg to quote prices for Precast Reinforced Concrete Pipe,
as follows:

- 20 60" precast type "B" @ \$32.00 per lin. ft.
 54" precast type "B" @ 29.00 per lin. ft.
 24" precast type "B" @ 5.00 per lin. ft.

Pipe to be built in accordance with the specifications,
delivery to be made along the line of work and in Streets ad-
jacent thereto.

- 30 Terms cash
 30 days after delivery.

JOHN M. PHILLIPS,

EXHIBIT C-33.

EXHIBIT C-33.

10 *(Contract between The City of New York and Patrick McGovern Inc. for the construction of a sewer and appurtenances in Hammels Boulevard from Beach Channel Drive to Amstel Avenue and in Amstel Avenue from Hammels Boulevard to Beach 62nd Avenue, Fifth Ward, Borough of Queens. Type "A").*

THE CITY OF NEW YORK—DEPARTMENT OF FINANCE

Office of Comptroller

20

CONTRACT SUMMARY

Contractor PATRICK MCGOVERN INC. No. 71761

Names of sureties Massachusetts Bonding & Insurance Co.

30

U. S. Fidelity & Guaranty Co.

Fidelity & Deposit Co. of Md.

Continental Casualty Co.

Amount of bond \$400,000.

Date of award August 28, 1924 Department President, Queens

40 Date of contract Sept. 12, 1924 Borough Queens

Date paid in full 4/28/27

EXHIBIT C-33 (continued).

DESCRIPTION OF WORK.

For the construction of a sewer and appurtenances in Hammels Boulevard from Beach Channel Drive to Amstel Avenue and in Amstel Avenue from Hammels Boulevard to Beach.
10 62nd Street, Fifth Ward, Borough of Queens.

AE	\$9749.35
	4681.12
	<hr/>
	14430.47

TYPE "A"

20	Original estimate	\$805,151.40
	A. E.	14,430.47
		<hr/>
		819,581.87

ACCOUNTS TO BE CHARGED

CFM 25

30 The obligation on this surety bond ceases as anything occurring after December 21, 1926.

If the conditions of the contract have been complied with, the retained percentage (if any) is due on or after December 21, 1926.

GEORGE W. MORTAR,

40

Examiner.

EXHIBIT C-33 (continued).

ORIGINAL ESTIMATE, ADDITIONS and REDUCTIONS

	Ctf. No.	Amount
	CFM 25	\$805,151.40
10		4,681.12
		9,749.35
		819,581.87

PAYMENTS, AMOUNTS RETAINED AND EARNED

	Date	% Payments	Amount paid to date	Amount retained to date	Amount earned to date
20	11-26-24	30,090.98	30,090.98	5,310.17	35,401.15
	1- 2-25	57,199.94	87,290.92	15,404.28	102,695.20
	1-29-25	34,626.75	121,917.67	21,514.88	143,432.55
	3- 4-25	39,836.10	161,753.77	28,544.78	190,298.55
	3-28-25	42,325.37	204,079.14	36,013.96	240,093.10
	5- 4-25	49,008.70	253,087.84	44,662.56	297,750.40
	Pursuant to Chapter 394 — Laws of 1921				
30	5-14-25	35,000.00	288,087.84	9,662.56	297,750.40
	6-18-25	55,740.75	343,828.59	19,499.16	363,327.75
	7-10-25	54,931.42	398,760.01	29,192.94	427,952.95
	Pursuant to Chapter 394 — Laws of 1921				
	8-17-25	29,000.00	427,760.01	192.94	
	8-21-25	49,188.48	476,948.49	8,873.26	485,821.75
	9- 9-25	43,729.27	520,677.76	16,590.19	537,267.95
40	Pursuant to Chapter 394 — Laws of 1921				
	9-15-25	15,000.00	535,677.76	1,590.19	
	10- 5-25	43,204.14	578,881.90	9,214.45	588,096.35
	11-13-25	44,918.93	623,800.83	17,141.32	640,942.15

EXHIBIT C-33 (continued).

Pursuant to Chapter 394 — Laws of 1921

	11-25-25	17,000.00	640,800.83	141.32	640,942.15
	12- 8-25	42,593.58	683,394.41	7,657.84	691,052.25
	1-20-26	34,299.84	717,694.25	13,710.75	731,405.00
	2-24-26	38,964.85	756,659.10	20,586.90	777,246.00
	4- 5-26	32,006.54	788,665.64	26,235.11	814,900.75
10	8-13-26	29,809.37	818,475.01	1,106.86	819,581.87
	4-11-27	1,106.86	819,581.87		
		<hr/>			
		819,581.87			

IN FULL

20

CONTRACT #71761

PATRICK MCGOVERN INC.

	Date 1925	Retained percent- age payments by City	Corporate stock substituted	Corporate stock released	Date
	May 16	\$35,000.00	\$35,000.00	\$96,000.	8/23/26
30	Aug. 27	29,000.00	29,000.00	IN FULL	
	Sept. 23	15,000.00	15,000.00		E.J.S.
	Dec. 1	17,000.00	17,000.00		
		96,000.00	96,000.00		

40

EXHIBIT C-33 (continued).

RESOLUTION

BOARD OF ESTIMATE AND APPORTIONMENT

CITY OF NEW YORK

10

(Cal. No. 14-A)

WHEREAS, The President of the Borough of Queens has transmitted to the Board of Estimate and Apportionment a copy of a resolution of the Local Board of the Newtown District, duly adopted by said Board on the 3rd day of March, 1921 and approved by the President of the Borough of Queens on the 16th day of June, 1921 as follows, to wit:

20

“RESOLVED, That this Board does hereby initiate proceedings for the local improvement to wit:

“For the construction of a sewer and appurtenances in HAMMELS BOULEVARD, from Beach Channel Drive to Amstel Avenue, and in AMSTEL AVENUE, from Hammels Boulevard to Beach 62nd Street, Fifth Ward, Borough of Queens”; and which resolution is accompanied with an approximate estimate of the cost of work and the assessed value of the property benefited.

30

RESOLVED, That the Board of Estimate and Apportionment hereby authorizes the President of the Borough of Queens to prepare plans, specifications and an estimate of cost based on actual survey, and also to secure a determination of the boundary of the district of assessment; the entire expense of the work done subsequent to the date of this authorization to be charged against the Street Improvement Fund and later included in the assessment.

40

RESOLVED, That the Board of Estimate and Apportionment will consider the authorization of the construction of the said proposed improvement after the President of the Borough of Queens has submitted a statement showing that all of the

EXHIBIT C-33 (*continued*).

10 above described work has been done, that he has secured the approval of the form of contract by the Corporation Counsel, that he is prepared to place the improvement under contract as soon as he receives the consent of the Board and that the assessment map will be completed on or before the date of payment on acceptance; this report being accompanied by a further statement showing the quantity of work to be performed under each item and the unit price thereof, the expense incurred for preliminary work, the allowance to be made for additional engineering and contingencies, the total probable cost, and the number of working days to be allowed the contractor for carrying out the work.

A true copy of a resolution adopted by the Board of Estimate and Apportionment.

20 FEBRUARY 10, 1922.

(SIGNED) JAMES MATTHEWS,
Assistant Secretary.

30

40

EXHIBIT C-33 (*continued*).

BOARD OF ESTIMATE and APPORTIONMENT
CITY OF NEW YORK

(Cal. No. 81-A)

10 A copy of a resolution of the Local Board of the Newtown District, duly adopted by said Board on the 3rd day of March, 1921 and approved by the President of the Borough of Queens on the 16th day of June, 1921 having been transmitted to the Board of Estimate and Apportionment, as follows, to wit:

“RESOLVED, That this Board does hereby initiate proceedings for the said local improvement, to wit:

20 “For the construction of a sewer and appurtenances in:—
HAMMELS BOULEVARD, from Beach Channel Drive to Amstel Avenue, and in AMSTEL AVENUE, from Hammels Boulevard to Beach 62nd Street, Fifth Ward, Borough of Queens”;
and thereupon, on the 10th day Feb., 1922 resolutions having been adopted by the Board of Estimate and Apportionment authorizing the President of the Borough of Queens to prepare the necessary plans, specifications and an estimate of the cost of the proposed improvement based on actual survey and further resolving that the Board of Estimate and Apportionment will
30 consider the authorization of the construction of the proposed improvement after the President of the Borough of Queens has submitted certain statements as provided in the said resolution, and the said resolution having been duly complied with by the President of the Borough of Queens, as appears by papers and documents on the files of the Board of Estimate and Apportionment, and there having been presented to the Board of Estimate and Apportionment an estimate in writing in such detail as the Board has directed, that the cost of the proposed work or im-
40 provement, together with the preliminary expenses will be the sum of \$826,700.; and a statement of the assessed value according to the last preceding tax roll of the real estate included within the probable area of assessment, to wit, the sum of \$41,422,180. having also been presented, it is

EXHIBIT C-33 (*continued*).

RESOLVED, That the said resolution of the Local Board be and the same is hereby approved and the construction of the local improvement therein provided for is hereby authorized. This Board does hereby determine that no portion of the cost and expense thereof shall be borne and paid by The City of New York, but that the whole of such cost and expense, including the aforesaid preliminary expenses, shall be assessed upon the property deemed to be benefited by the said local improvement.

A true copy of a resolution adopted by the Board of Estimate and Apportionment.

AUGUST 17, 1923.

20

(SIGNED) JAMES MATTHEWS,
Assistant Secretary.

30

40

EXHIBIT C-33 (continued).

CONTRACT NO. 71761
THE CITY OF NEW YORK
ADVICE OF AWARD OF CONTRACT

10 (This copy to be retained by Bookkeeping Division
Department of Finance)

Dept. of President of the Borough of Queens

*Date Aug. 28, 1924.

Comptroller of The City of New York:

20 Please take notice that the following described contract
has this day* been awarded to

Contractor PATRICK MCGOVERN, INC.,

Address 50 East 42nd Street, New York City.

Sureties Massachusetts Bonding & Insurance Co., 100,000.00
United States Fidelity & Guaranty Co., 125,000.00
30 Fidelity & Deposit Co. of Maryland 125,000.00
Continental Casualty Co. 50,000.00

AMT. OF BOND \$400,000.00

DETAILS OF PURPOSE OF CONTRACT

40 For the construction of a sewer and appurtenances in
HAMMELS BOULEVARD from Beach Channel Drive to
Amstel Avenue, and in AMSTEL AVENUE from Hammels
Boulevard to Beach 62nd Street, Fifth Ward, Borough of
Queens.

EXHIBIT C-33 (continued).

TYPE "A"

	Contract Chargeable to Code No.	Estimated Amount	Contracts Previously Awarded (Including Adjustments)	Open Market Orders Issued To Date (Including Adjustments)	Misc. Vouchers, Payrolls, and Order Charges
10	C.F.M. 25	\$805,151.40	\$9,874,813.33	\$17,070.88	\$421,917.80

Enter full titles accounts below and refer to code numbers by means of line numbers in margin.

Street Improvement Fund

20 Yours respectfully,

MAURICE E. CONNOLLY,

President, Borough of Queens, *Head of Dept.*

*This will be the date of the entry by which the fund is charged with the estimated amount of the contract both in the department making the award and by the Department of Finance. There must therefore be not delay in forwarding this advice.

30

40

EXHIBIT C-33 (*continued*).

CITY OF NEW YORK.

Office of

THE PRESIDENT OF THE BOROUGH OF QUEENS

10 Maurice E. Connolly,
President

Michael J. Shugrue,
Borough Secretary

Long Island City, September 23, 1924.

Honourable Charles L. Craig,

20 Comptroller City of New York.

Dear Sir:

Referring to Contract No. 71,761

30 For the construction of a sewer and appurtenances in
HAMMELS BOULEVARD from Beach Channel Drive to
Amstel Avenue, and in AMSTEL AVENUE from Hammels
Boulevard to Beach 62nd Street, Fifth Ward

I beg to inform you that the Contractor, Patrick McGovern,
Inc., 50 East 42nd Street, New York City, has been ordered to
commence the work embraced in said contract within seven days
after the service, by mail or otherwise, of this notice, irrespec-
tive of the date of same.

Very truly yours,

40 MAURICE E. CONNOLLY,
President of the Borough of Queens.

MEC-JJR-L

Notice to contractor to begin work was mailed Sept. 24th, 1924.

EXHIBIT C-33 (*continued*).

CITY OF NEW YORK

Office of

THE PRESIDENT OF THE BOROUGH OF QUEENS

Maurice E. Connolly,
President

10 Mary C. Hendrickson,
Secretary to President

Long Island City, June 8, 1926.

Hon. Chas. W. Berry, Comptroller,
Department of Finance,
Municipal Building,
New York City, N. Y.

20 Sir:—

In accordance with the recommandation of the Engineer of Sewers, this Department, I have granted an extension of time of seventy-nine (79) days to Patrick McGovern, Inc., 50 East 42nd Street, New York City, N. Y., in which to complete the work in connection with Contract No. 71761 —

“For the construction of a sewer and appurtenances in HAMMELS BOULEVARD from Beach 88th St. to Beach 62nd St., 5th Ward.”

30

The work in connection with this contract was of a very difficult nature. Large quantities of water were encountered and it was also necessary to take care of the existing sewers encountered during the prosecution of the work. The contractor was also delayed for a period of about 36 days awaiting the removal of some buildings on the line of the sewer, and considerable delay was also encountered waiting for the Long Island Railroad to make the necessary provisions for the driving of the sheeting and the shorting of their tracks. There were several
40 other delays, such as waiting for the removal of water mains, etc., which delayed the contractor, and through no fault of his own; and it is for the above reasons that an extension of time was granted.

Very truly yours,

MAURICE E. CONNOLLY,
President of the Borough of Queens.

JK

EXHIBIT C-33 (continued).

ENGINEERING

August 6, 1926.

Mr. Charles H. Graham,
Chief Engineer.

Sir:—

10

In relation to final payment in the sum of \$29,809.37, Tickler No. 109729 for the construction of sewer in Hammels Boulevard from Beach Channel Drive to Amstel Avenue, etc., Patrick McGovern, Incorporated, Contractor, under contract #71761, I report:

20

The quantities of work enumerated in the voucher are correct and the work has been performed in substantial conformity with the contract, but would direct your attention to the following item appearing on the voucher —

Deducted for curb, sidewalks, etc., not restored \$3,259.70

In lieu of restoring the macadam pavement and certain sidewalks and curbing distributed by Contractor there is deducted \$3,259.70, to cover cost of restoration, computed as follows:

30

438. lin. ft. Curb	@ \$1.25	\$ 457.50
7890. sq. ft. Walk	@ .30	2,367.00
172.6 sq. yds. Macadam	@ 2.00	345.20
		<hr/>
		\$3,259.70

40

I have verified the aforesaid computations covering deduction made and find same correct, the prices fixed are reasonable. Inasmuch as the Borough authorities contemplate paving Amstel Avenue at an early date I consider the omission from the contract, of the surface restoration, the proper procedure.

I recommend payment of \$29,809.37.

Respectfully,

Assistant Engineer.

EXHIBIT C-33 (*continued*).

NOTICE

10 Bidders are particularly requested to carefully examine the Proposal for Bids, Form of Agreement, Specifications, Plan and the location of the work and the surroundings thereof before bidding.

No. 3

THE CITY OF NEW YORK
OFFICE OF THE PRESIDENT OF THE BOROUGH
OF QUEENS.

20

BUREAU OF SEWERS.

1923

30

ASSESSMENT WORK

Proposal for Bids, Bid, Bond, Agreement and Specifications for the construction of a sewer and appurtenances in HAMMELS BOULEVARD, from Beach Channel Drive to Hamstel Avenue, and in HAMSTEL AVENUE from Hammels Boulevard to Beach 62nd Street, Fifth Ward, Borough of Queens, together with all the work incidental thereto.

40

EXHIBIT C-33 (*continued*).

T Y P E "A"

No. 1

The City of New York

Office of

10 THE PRESIDENT OF THE BOROUGH OF QUEENS.

BUREAU OF SEWERS

20 Sealed Bids or Proposals for the herein named work will be received at the office of the President of the Borough of Queens, on the 4th Floor of the Queens Subway Building, 68 Hunterspoint Avenue, Long Island City, Borough of Queens, in The City of New York, until 11 o'clock a. m., on August 12, 1924.

The time allowed for the completion of the work and the full performance of the contract is 350 CONSECUTIVE WORK-INK DAYS.

30 The liquidated damages for each day in excess of the allowed time, as stipulated in the contract, is *Fifty dollars per day*.

The amount of SECURITY or surety bond required will be (\$400,000.00).

40 NOTE.—All bids must be submitted upon the proper blank form of bid and in the sealed envelope prepared and furnished by the Borough President, and must be made out as required. Any bid which fails to name the price, both *in writing* and *in figures* per unit of measurement for each and every item of the proposed work where quantities are given, or is incomplete, conditional, obscure, or irregular, may be held to be informal and may be rejected, and in case of any discrepancy between the price written in and the bid and that given in figures, the price in writing will be considered as the bid. The writing must be in ink.

EXHIBIT C-33 (*continued*).

BID OR ESTIMATE for the construction of a sewer and appurtenances in HAMMELS BOULEVARD, from Beach Channel Drive to Amstel Avenue, and in AMSTEL AVENUE, from Hammels Boulevard to Beach 62nd Street, Fifth Ward, Borough of Queens.

10 Made by the firm or corporation of Patrick McGovern Inc.
Address 50 East 42nd St., N. Y. City.

NAME AND ADDRESS OF EACH AND EVERY MEMBER
OF THE FIRM OR PRINCIPAL OFFICERS

OF THE CORPORATION

20 NOTE.— The *bidder's name and residence or address* must be inserted herebelow, and in case of a firm, *the name and address of each and every member of the firm must be inserted.*

In case a bid shall be submitted by or in behalf of any corporation, the complete legal name and address of such *corporation* must be written herebelow, together with the name, address and title of the principal officers of the corporation.

Name Patrick McGovern, Inc.
Address 50 East 42nd St., N. Y. City.

30 Name Patrick McGovern, President and Treasurer
Address Great Neck, L. J.

Name Mary G. Reissew, Secretary
Address Great Neck, L. J.

Name Ellsworth D. Hubbard, Vice-President,
Address 99 Grandview Ave, Mt. Vernon, N. Y.

40 The party named above (of lawful age), as *Bidder*, declares: *That* the only person or persons interested in this bid or proposal as principal or principals is or are named above, and that no other person than herein above named has any interest in this bid or in the contract proposed to be taken; *that* this bid is made without any connection with any other person or persons making a bid for the same work or purpose; *that* the bid is in

EXHIBIT C-33 (*continued*).

10 all respects fair and without collusion or fraud, and *that* no member of the Board of Aldermen, no head of a department, no chief of a bureau, deputy thereof, or clerk therein, nor any other officer or employee of The City of New York, is, shall be or become, directly or indirectly, interested as contracting party, partner, stockholder, surety or otherwise in the performance of the contract, or in the supplies, work or business to which it
20 relates, or in any portion of the profits thereof, *that* he has examined the form of contract and specifications approved by the Corporation Counsel and any plans therein referred to, and that he has visited the site of the proposed work and has made himself familiar with all the existing conditions; and he proposes and agrees, if this bid be accepted, that he will contract in the form so approved, to provide, furnish and deliver all necessary work, labor, services, materials or supplies, machinery, tools, plant, and appliances, and to perform and complete all the work
mentioned in said approved form of contract and specifications, and in strict accordance with the terms and conditions thereof, and that he will accept in full payment therefore the following named sums or prices:

30 The Engineer's estimate of the quantities as advertised and the nature and extent of the work and materials or supplies required, through stated with as much accuracy as is practicable in advance, are APPROXIMATE only and are given to form a basis of comparison for testing bids and are not guaranteed to be accurate and are not considered as a binding feature of the contract. *Before bidding, Contractors must satisfy themselves by personal examination of the Plans, Specifications, Contract, and location of the proposed work, and by such other means as they may prefer, as to the accuracy of the foregoing statement, and they must determine for themselves, and allow for all difficulties which may be encountered in the prosecution of the work.*

40 T Y P E "A"

1. 4,650 Linear Feet 5'-0" Reinforced Concrete Sewer, Complete, as per detail, exclusive of piles, capping and decking, Per Linear Foot, Ninety Six Dollars (\$96.00).
2. 1,892 Linear Feet 4'-6" Reinforced Concrete Sewer, Complete, as per detail, exclusive of piles, capping and

EXHIBIT C-33 (continued).

- decking, Per Linear Foot, Ninety Two Dollars (\$92.00).
3. 42 Manholes, Complete, exclusive of piles, capping and decking, Each, Eight Hundred Dollars (\$800.00).
- 10 4. 5 Chambers, Complete, exclusive of piles, capping and decking, Each, Nineteen Hundred Dollars (\$1900.00).
5. 1,764 Vertical Feet 6" C. I. Pipe (Class "A") Risers, Per Vertical Ft., Ten and 35-100 Dollars (\$10.35).
6. 12,600 Linear Feet of 6" C. I. Pipe (Class "A"), encased in Concrete, House Connection Drains, Per Linear Foot, Seven and 70-100 Dollars (\$7.70).
- 20 7. 22 Special Manholes, including connections between old and new sewers, Complete, as shown, Each, Six Hundred Dollars (\$600.00).
8. 1,750 Cubic Yards Cut to established grade, Per Cubic Yard, Two Dollars (\$2.00).
9. 7,250 Cubic Yards Fill to established grade, Per Cubic Yard, One Dollar (\$1.00).
- 30 10. 100 Linear Feet 10" Vitrified Pipe Sewer, laid in place, Per Linear Foot, Five and 10-100 Dollars (\$5.10).
11. 100 Linear Feet 12" Vitrified Pipe Sewer, laid in place, Per Linear Foot, Five and 25-100 Dollars (\$5.25).
12. 100 Linear Feet 15" Vitrified Pipe Sewer, laid in place, Per Linear Foot, Five and 75-100 Dollars (\$5.75).
- 40 13. 100 Linear Feet 24" Vitrified Pipe Sewer, laid in place, Per Linear Foot, Seven and 50-100 Dollars (\$7.50).

No bid will be allowed to be withdrawn, for any reason whatever, after it has been received and deposited with the President. The President expressly reserves the right to reject all bids if he shall deem it for the public interest so to do. No bid will be accepted from, nor contract awarded to, any person who is in

EXHIBIT C-33 (*continued*).

arrears to The City of New York upon debt or contract, or who is a defaulter, as surety or otherwise, upon any obligation to The City of New York.

10 No bid or proposal will be received, considered and deposited unless, as a condition precedent to the reception or consideration of any proposal it be accompanied by either a certified check upon one of the State or National Banks of The City of New York, drawn and made payable to the order of the Comptroller of The City of New York, or money to the amount of *five per centum* (5%) of the amount of the security or surety bond required for the faithful performance of the contract. Such check or money must not be inclosed in the sealed envelope containing the proposal, but must be either inclosed in a separate envelope addressed to the Borough President, or submitted personally upon the presentation of the bid or proposal and handed to the officer or clerk of the Department who has charge of the proposal box, and who will give a proper voucher for the deposit, and no bid can be deposited in said box until such check or money has been examined by said officer or clerk and found to be correct. All such deposits, except that made by the bidder to whom the contract shall be awarded, will be returned to the person or persons making the same within three (3) days after the decision as to who shall receive the contract. If the bidder to whom the contract has been awarded shall refuse or neglect to execute the same within five days after due notice that the contract has been awarded to him, and that the adequacy and sufficiency of the surety offered has been approved by the Comptroller, the amount of the deposit made by him shall be forfeited to and retained by The City of New York as liquidated damages for such neglect or refusal; but if he shall execute the contract and furnish the said surety within the time aforesaid, the amount of the deposit shall be returned to him.

Each and every person bidding must sign here.

40 NOTE. — *Each and every person bidding* and named above must *sign here*. In the case of a firm, give the name of each and every partner in full.

Patrick McGovern Inc. [L. S.]
by E. D. Hubbard, [L. S.]
Vice President

In case a bid shall be submitted by or in behalf of a cor-

EXHIBIT C-33 (continued).

poration, it must be signed in the full legal name of such corporation by some authorized officer or agent thereof, who shall subscribe his name and office. If practicable, the seal of the corporation must be affixed.

..... [L. S.]

10

The following affidavit must be similarly signed and sworn to:

THE CITY AND STATE OF NEW YORK, COUNTY OF N. Y., ss.:

The above-named bidder (s), being severally duly sworn, say, each for himself, that the several matters stated in the above bid are in all respects true.

20

Subscribed and sworn to before me, this 12th day of August, 1924.

Signature of Bidder

E. D. HUBBARD.

Mary B. BOYCE,

30

Notary Public, or Commissioner of Deeds.

Notary Public, Westchester County,

Cert. filled in N. Y. Clerk's No. 504, Register's No. 6431.

NOTICE TO BIDDERS

40

Bidders are invited to tender bids on monolithic concrete sewers 27-inches and upward, these being the standards of the Sewer Department, and hereafter designated as Type "A", or on reinforced concrete pipe sewer 24-inches and upward (pre-cast) which will be designated as Type "B", or on both types, if they so desire, but it is to be distinctly understood that no bids will be accepted on combinations of Types "A" and "B".

EXHIBIT C-33 (continued).

Time for preenting bids.

1. *Sealed bids* for the above entitled work will be received at the office of the President of the Borough of Queens, Queens Subway Building, Long Island City, in the City of New York, until 11 o'clock a. m. on Tuesday August 12th, 1924.

10 Time allowed for completion.

2. The time allowed for the full completion of the work herein described will be Three Hundred and Fifty (350) CONSECUTIVE WORKING DAYS.

Security required.

20 3. The amount of security required will be Four Hundred Thousand Dollars (\$400,000.00).

Bidders referred to form of agreement, etc.

30 4. Bidders are referred to the form of agreement, to the specifications and to the plan and drawings of Standard Details on file at the office of the President, and to the following Engineer's estimate of the quantity and kind of work required the items whereof in all cases include all materials and labor necessary to fully complete said work. Prices for each item shall be named upon the sum total of which the comparison and tests of bids will be made.

NOTICE TO BIDDERS

Prices to be paid by the City of New York for indeterminate quantities, such as

40	CLASS "A" CONCRETE	\$ 20.00	Per Cu. Yd.
	REINFORCING STEEL .....	.06	Per Lb.
	STRUCTURAL STEEL .....	.08	" "
	FOUNDATION TIMBER	100.00	Per 1000 Ft. B. M.
	SHEETING & BRACING	70.00	" " " "
	PILING (TIMBER)	1.25	Per Ft. driven and cut off
	STEAM CINDERS (delivered & placed)	1.75	Per Cu. Yd.

EXHIBIT C-33 (*continued*).

Indeterminate quantities shall be those whose amount and necessity will be determined by the conditions encountered during the work of construction.

Engineer's estimate.

10	T Y P E "A"
	4,650 Linear Feet 5'-0" Reinforced Concrete Sewer, Complete as per detail, exclusive of piles, capping and decking
	1,892 Linear Feet 4'-6" Reinforced Concrete Sewer, Complete, as per detail, exclusive of piles, capping and decking
20	42 Manholes, Complete, exclusive of piles, capping and decking
	5 Chambers, Complete, exclusive of piles, capping and decking
	1,764 Vertical Feet 6" C. I. Pipe (Class "A") Risers
	12,600 Linear Feet of 6" C. I. Pipe (Class "A"), encased in concrete, House Connection Drains
30	22 Special Manholes, including connections between old and new sewers complete (as shown)
	1,750 Cubic Yards Cut to established grade
	7,250 Cubic Yards Fill to established grade
	100 Linear Feet 10" Vitrified Pipe Sewer laid in place
40	100 Linear Feet 12" Vitrified Pipe Sewer laid in place
	100 Linear Feet 15" Vitrified Pipe Sewer laid in place
	100 Linear Feet 24" Vitrified Pipe Sewer laid in place

EXHIBIT C-33 (continued).

T Y P E "B"

- 10 4,650 Linear Feet 5'-0" Reinforced Concrete Pipe Sewer (Precast Type "B"), Complete, as per detail, exclusive of piles, capping and decking
- 1,892 Linear Feet 4'-6" Reinforced Concrete Pipe Sewer (Precast Type "B"), Complete, as per detail, exclusive of piles, capping and decking
- 42 Manholes, Complete, exclusive of piles, capping and decking
- 5 Chambers, Complete, exclusive of piles, capping and decking
- 20 1,764 Vertical Feet 6" C. I. Pipe (Class "A") Risers
- 12,600 Linear Feet of 6" C. I. Pipe (Class "A"), encased in concrete, House Connection Drains
- 22 Special Manholes, including connections between old and new sewers (Complete, as shown)
- 30 1,750 Cubic Yards Cut to established grade
- 7,250 Cubic Yards Fill to established grade
- 100 Linear Feet of 10" Vitrified Pipe Sewer laid in place
- 100 Linear Feet of 12" Vitrified Pipe Sewer laid in place
- 100 Linear Feet of 15" Vitrified Pipe Sewer laid in place
- 40 100 Linear Feet of 24" Reinforced Concrete Pipe Sewer (Precast Type "B")

EXHIBIT C-33 (*continued*).

Personal examination of work.

5. The foregoing Engineer's Estimate is *approximate only* and is not to be considered as a binding feature of the contract. Bidders are required to submit their bids upon the following express conditions which apply to and become a part of every bid received. Bidders must satisfy themselves by personal
10 examination of the location of the proposed work and surroundings thereof, and by such other means as they may prefer as to the accuracy of the foregoing estimate, and shall not at any time after submission of their bids, dispute or complain of such estimate of the Engineer, nor assert that there was any misunderstanding in regard to the quantity or kind of material to be furnished or work to be done.

Prices to be stated in writing in words, and in figures.

- 20 6. Any bid which fails to name a price, written both in words and in figures, per unit of measurement for each of the items for which quantities are given, will be held to be informal and will be rejected. In case of any discrepancy between the price in words and that in figures, the price in words will be considered as the bid.

Prices bid to cover.

- 30 7. The prices bid must cover the cost of furnishing *all necessary materials and labor for and the complete performance of all the work* set forth in this proposal, described in the form of agreement and specification annexed hereto, and indicated by the plan of the work on file in the office of the President, to all of which information the bidders are referred.

Rock excavation.

- 40 8. The attention of the bidders is particularly directed to the specifications relating to rock excavation.

Bids may be rejected.

9. Permission will not be given for the withdrawal of any bid within forty-five (45) days after receipt of bids and the right is expressly reserved by the President to reject all bids if he shall deem it to the public interest so to do. No bid will be accepted

EXHIBIT C-33 (*continued*).

from, or contract awarded to, any person who is in arrears to The City of New York upon debt or contract or who is a defaulter, as surety or otherwise upon any obligation to The City of New York.

10 Times and places for commencing and prosecuting work to be determined by the President.

10. Bidders are especially notified that the President reserves the right to determine the times and places for commencing and prosecuting the work, and that postponement or delay on the whole, or any part thereof, occasioned by the precedence of other contracts, which may be either let or executed before the opening of the bids for this work, can constitute no claim for damages nor for a reduction of the damages fixed for delay in completing the work beyond the time allowed.

20 No extra compensation.

11. The Contractor will be required to complete the entire work to the satisfaction of the President and in accordance with the agreement, the specifications and the plan of the work. No extra compensation beyond the amount payable for the several classes of work herein before enumerated, which shall be actually furnished and performed at the prices bid therefor by the bidder to whom the contract is awarded, shall be due or
30 payable for the entire materials and work.

Deposit to accompany bid.

12. No bid will be received or considered unless accompanied by either a certified check upon one of the National or State Banks or Trust Companies of The City of New York, or a check of such bank or trust company signed by a duly authorized officer thereof, drawn to the order of the Comptroller, or money or corporate stock or certificate of indebtedness of any
40 nature issued by The City of New York, which the Comptroller shall approve as of equal value with the security required, to an amount of five per centum of the amount of the bond required for the faithful performance of the contract (as provided by Section 420 of The Greater New York Charter, as amended). Such check or money or other form of security must not be inclosed in the sealed envelope containing the bid, but must be handed to the officer or clerk who has charge of the bidding, and no bid shall

EXHIBIT C-33 (*continued*).

be deposited in the box provided for that purpose until such check or money or other forms of security has been examined by said officer or clerk and found to be correct. All such deposits, except those of the lowest three bidders, will be returned to the persons making the same within ten days after the opening of the bids; within three days after the awarding of the contract, the remaining deposits, except that made by the bidder whose
10 bid has been accepted, will be returned to the persons making the same. If the successful bidder shall refuse or neglect to execute the contract within five days after notice that it has been awarded to him, and that the adequacy and sufficiency of the security offered has been approved by the Comptroller, the amount of the deposit made by him shall be forfeited to and retained by The City of New York, but if he shall execute the contract and furnish the required security within the time aforesaid, the amount of his deposit will be returned to him.

20 Names of persons interested.

13. Bidders are required to state in their bids, under oath, their names and places of residence or business, the names of all persons interested with them therein, and if no other person be so interested, they shall distinctly state that fact; also, that it is made without any connection with any other person making any bid for the same purpose, and that it is in all respects fair and without collusion or fraud; and that no
30 member of the Board of Aldermen, head of a department, chief of a bureau, deputy thereof or clerk therein or officer or employee of The City of New York is, shall be or become interested, directly or indirectly, as contracting party, partner, stockholder, surety or otherwise, in or in the performance of the contract or in the materials, work or business to which it relates, or in any portion of the profits thereof. Bidders must verify by oath, in writing, the several matters stated in their bids.

Sealed bids to be submitted.

40 14. Each bid must be delivered in a sealed envelope, endorsed with the *title* of the work for which the bid is made, with the name of the bidder, and the date of presentation to the President at his office, on or before the date and hour hereinbefore named, at which time and place the bids received will be publicly opened by the President and read and the award of the

EXHIBIT C-33 (*continued*).

10 contract made according to law as soon thereafter as practicable. The person or persons to whom the contract may be awarded will be required to attend at said office with the sureties offered by him or them and execute the contract within five days from the date of the service of a notice to the effect that the contract has been so awarded and the surety accepted; and in case of failure or neglect so to do he or they will be considered as having abandoned the contract and as being in default to The City.

Bidders shall use blank forms to be furnished by the President.

15. Bidders shall made their bids upon the forms prepared by the President, a copy of which with the proper envelope in which to enclose the same can be obtained upon application therefor at the office of the President, Queens Subway Building, Long Island City, where the plans can be seen, as also the form of contract, including the specifications in the form approved by the Corporation Counsel.

MAURICE E. CONNOLLY,

President of the Borough of Queens.

The City of New York,....., 192...

30

40

EXHIBIT C-33 (continued).

THE CITY OF NEW YORK

Office of

THE PRESIDENT OF THE BOROUGH OF QUEENS

10

BUREAU OF SEWERS.

20 CONTRACT FOR the construction of a sewer and appurtenances in HAMMELS BOULEVARD, from Beach Channel Drive to Amstel Avenue, and in AMSTEL AVENUE from Hammels Boulevard to Beach 62nd Street, Fifth Ward, Borough of Queens, together with all the work incidental thereto.

Parties.

30 THIS AGREEMENT, made and entered into this 12th day of September, in the year one thousand nine hundred and twenty four, by and between The City of New York, party of the first part, by the President of the Borough of Queens, and Patrick McGovern, Inc, of 50 East 42nd Street, N. Y. City, Contractor, party of the second part, pursuant to the provisions of The Greater New York Charter, and the resolution of the Board of Estimate and Apportionment adopted on the 10th day of February, 1922, of which resolution the following is a copy:

Covenant.

40 WITNESSETH, That the parties to these presents, each in consideration of the agreements on the part of the other herein contained, have mutually agreed, and hereby mutually agree, the party of the first part for itself and its successors, and the party of the second part for itself, himself or themselves, and its, his or their executors, administrators, successors and assigns, as follows:

EXHIBIT C-33 (*continued*).

Contract.

1. The contract for the hereinbefore entitled work shall include the following, which are hereby agreed upon as forming part and parcel thereof: the Proposal for Bids, the Bid, the Bond, this Agreement and the Specifications hereto annexed; also the Plan of the Work dated July 6th, 1923, filed in the office of the President of the Borough, entitled: PLAN, PROFILE and DETAILS for the construction of a sewer and appurtenances in HAMMELS BOULEVARD, from Beach Channel Drive to Amstel Avenue, and in AMSTEL AVENUE from Hammels Boulevard to Beach 62nd Street, Fifth Ward, Borough of Queens, and also Drawings of Standard Details pertinent thereto on file in the office of the Engineer.

Party of the first part.

20 II. Whenever the term "The City" or a word "President", or a pronoun in place of either, is used, it refers to and means The City of New York, the party of the first part hereto, or the President of the Borough of Queens, or his authorized representative.

Party of the second part.

30 Whenever the word "Contractor," or a pronoun in place thereof, is used, it refers to and means the party of the second part hereto.

Engineer described.

40 III. Whenever the word "Engineer." or a pronoun in place thereof, is used, it refers to and means the Engineer designated by the President, Borough of Queens, acting either directly or through assistants designated by him to act in the premises, limited to the particular duties entrusted to them. In case said Engineer may not be able to act, then such Engineer as may be designated by the President shall act in his place.

Terms defined.

IV. Whenever the word "plan" is used, it refers to and means the plan of this work and the standard drawings pertinent

EXHIBIT C-33 (continued).

thereto. Whenever it is provided that anything is "to be" or "to be done," "if," or "as," or "when," or "where approved," "required," "directed," "permitted," "ordered," "designated," or "deemed necessary," it shall be taken to mean approved, required, permitted, ordered, designated, or deemed necessary as the case may be by the Engineer. Whenever the words "desirable," "suitable," "sufficient," "satisfactory," or others of a similar purport are used, it is hereby agreed that the desirability, suitability, sufficiency, satisfactoriness or other denominated condition shall be as determined by the Engineer.
Contractor to furnish tools, proper appliances, etc.

V. The Contractor hereby agrees to furnish and provide all materials, labor and appliances necessary and proper for the purpose, to excavate for, build, complete and connect in a good substantial manner, to the satisfaction of the President, and in conformity with the contract, the hereinbefore entitled work and all the work incidental thereto, and the Contractor hereby agrees to receive and accept as and for his full compensation the following prices, which are the amounts or rates at which this contract was awarded to the Contractor at the public letting thereof:

Prices.

30

T Y P E "A"

- 5'-0" Reinforced Concrete Sewer, Complete, as per detail, exclusive of piles, capping and decking, Per Linear Foot, Ninety six Dollars (\$96.00).
- 4'-6" Reinforced Concrete Sewer, Complete, as per detail, exclusive of piles, capping and decking, per Linear Foot, Ninety two Dollars (\$92.00).
- 40 Manholes, Complete, exclusive of piles, capping and decking, Each, Eight hundred Dollars (\$800.00).
- Chambers, Complete, exclusive of piles, capping and decking, Each, Nineteen hundred Dollars (\$1900.00).

EXHIBIT C-33 (continued).

- 6" C. I. Pipe (Class "A") Risers, Per Vertical Foot, Ten 35-100 Dollars (\$10.35).
- 6" C. I.j Pipe (Class "A"), encased in concrete, House Connection Drains, Per Linear Foot, Seven 70-100 Dollars (\$7.70).
- 10 Special Manholes, including connections between old and new sewers, Complete (as shown), Each, Six hundred Dollars (\$600.00).
- Cut to established grade, Per Cubic Yard, Two Dollars (\$2.00).
- Fill to established grade, Per Cubic Yard, One Dollar (\$1.00).
- 10" Vitrified Pipe Sewer, laid in place, Per Linear Foot, Five 10-100 Dollars (\$5.10).
- 20 12" Vitrified Pipe Sewer, laid in place, Per Linear Foot, Five 25-100 Dollars (\$5.25).
- 15" Vitrified Pipe Sewer, laid in place, Per Linear Foot, Five 75-100 Dollars (\$5.75).
- 24" Vitrified Pipe Sewer, laid in place, Per Linear Foot, Seven 50-100 Dollars (\$7.50).
- 30 Quantities are approximate only.

No extra compensation.

- 40 VI. The Contractor admits that the quantities of materials to be furnished and the amount of work to be done, as stated in the proposal for bids for the work, are approximate only. The Contractor agrees that The City is not to be held responsible that any of said quantities and amounts shall obtain in the construction of the work, as he has judged for himself as to such quantities and amounts and each of them, and as to the other circumstances affecting the cost of the performance of this contract; and that he will not at any time dispute or complain of such statement nor assert that there was any misunderstanding in regard to the character, size or depth of the excavations to be made or the kind or amount of the materials to be furnished or work to be done. The Contractor hereby agrees that he will

EXHIBIT C-33 (continued).

not ask, demand, sue for, nor seek to recover for the entire work any extra compensation beyond the amount payable for the several classes of work and kinds of materials in this contract enumerated, which shall be actually performed and furnished, at the prices therefor herein agreed upon and fixed.

Sewers, etc., to be built as shown on the plan.

10

VII. The sewer and appurtenances will be built on the lines, at the depths and at the grades and in the manner shown on the plan of the work as the same will be designated on the ground by the Engineer.

Line may be changed.

20

The President may change the line of the sewer or the location of the manholes or other sewer appurtenances provided such changes do not materially affect either the character or the amount of the work to be done, or the conditions under which it is to be performed, and the Contractor hereby agrees to make no claim for damages or extra compensation on account thereof.

Preservation of points, stakes, etc.

30

The Contractor will safeguard all points, stakes, grade marks, monuments and bench marks made or established on or near the line of work, and he agrees to accept responsibility for and to remedy at his cost any mistakes that may be caused by the unauthorized disturbance or removal of such points, stakes, grade marks, monuments and bench marks.

Written order for extra work.

40

VIII. No claim for additional work or materials shall be made by or allowed to the Contractor, unless before the performance of such additional work the President shall have first authorized the same, in writing, and the same shall have been done or furnished under a written order from the President, given before the performance of such additional work or the furnishing of such additional materials. The aggregate price to be paid for additional work or materials so authorized or ordered shall not exceed five (5) per cent. of the contract price or the total cost of the work and materials.

EXHIBIT C-33 (*continued*).

Contract may be modified.

10 This contract may be modified and changed from time to time as may previously be agreed to, in writing, between the parties hereto, in a manner not materially affecting the substances thereof or increasing the contract price thereunder, in order to carry out and complete more fully and perfectly the work herein agreed to be done and performed.

Limit to extras.

20 All claims for additional work or materials in any month shall be made to the Engineer, in writing, before the 15th day of the following month, and failing to make such claim within the time required, the rights of the Contractor to additional pay for such additional work or materials shall be deemed to have been waived and forfeited.

Inspection.

Work or materials may be condemned at any time.

30 IX. The Engineer shall inspect the materials furnished and the work done and see that the same correspond with the specifications. The Engineer is hereby authorized and empowered to reject and refuse all labor and material or method of application, or any part thereof, offered under or in fulfillment of this contract, that do not comply in kind, quality or quantity with the terms thereof. Any material delivered or offered to be delivered under this contract, which shall be rejected by the Engineer as not conforming to the terms thereof, will be forthwith removed by the Contractor, and material which does so conform will be forthwith furnished and delivered to him in place thereof. The Contractor hereby agrees not to use any material which has not been inspected and accepted, nor to perform any work except under inspection, to which end he further agrees to notify the Engineer when lines, grades or inspection are required to that the Engineer may have time to provide for the same. No inspection, approval or acceptance of any part of the work herein contracted for or of the materials used therein, or any payment on account thereof, shall prevent the President from refusing to accept the work or materials at any time thereafter.

40

EXHIBIT C-33 (*continued*).

Engineer to be final arbiter.

10 X. To prevent all disputes and litigation, it is hereby agreed that the Engineer shall, in all cases, determine the amount and the quality of the several kinds of work and materials which are to be paid for under this contract, and he shall determine all questions in relation to the work and materials and the construction thereof, and he shall in all cases decide every question which may arise relative to the execution of this contract on the part of the Contractor, and his decision will be final and conclusive upon the Contractor; and such decision, in case any question shall arise, shall be a condition precedent to the right of the Contractor to receive any money under this contract.

20 Any doubt as to the meaning of this contract and the specifications thereof, or any obscurity as to the wording of them, or any discrepancy between them and the plan will be explained by the Engineer, and his explanation will be accepted by the Contractor, who hereby agrees to execute the work in accordance with such explanation, and to make no change or claim for any extra work or damage on account thereof.

Work and materials must agree with specifications.

30 XI. The work will be performed in the best manner, and all materials of which the work is composed will be of the best kind, and a sufficient number of persons will be at all times employed to execute the work with due dispatch, the whole to be done to the satisfaction of the Engineer, and any materials furnished or work done not satisfactory to the Engineer will be immediately removed and satisfactorily replaced by the Contractor at his own expense; or if he shall neglect or refuse to remove and replace the same when notified so to do by a written notice to be served upon him, then the President may remove, or cause the same to be removed and satisfactorily replaced, by contract or otherwise, as he may deem expedient, and charge the expense thereof to the Contractor; and the expense so charged shall be
40 deducted and paid by The City out of such moneys as are or may become due under this contract.

Examinations.

During the progress or after the completion of the work, should the Engineer require it, for the purpose of examining

EXHIBIT C-33 (*continued*).

the same, the Contractor will make such openings, and to such extent through such part or parts of the work as the Engineer may direct, and the Contractor will satisfactorily restore the work so disturbed. Should the openings disclose defects in the work, such defects shall be remedied in accordance with the provisions of the first paragraph of this section.

10 Use of patented articles.

XII. Wherever an article or any kind of material is specified by a trade name or by the name of a patentee, manufacturer or dealer, or by reference to the catalogue of a manufacturer or dealer, it shall be taken as intending to mean and specify the article or kind of material designated, or any other equal thereto in quality, finish and durability, and equally serviceable for the purposes for which it is or they are intended. Nothing on the plan or in the specifications shall be interpreted or taken to violate the provisions of Section 1554 of The Greater New York Charter, which provides that "except for repairs, no patented pavement shall be laid, and no patented article shall be advertised for, contracted for or purchased, except under such circumstances that there can be a fair and reasonable opportunity for competition, the conditions to secure which shall be prescribed by the Board of Estimate and Apportionment."

Claims for infringement.

30 The Contractor will be responsible for any claims made against The City for any infringement of patents, by the use of patented articles or processes in the construction and completion of the work, and he will save harmless and indemnify The City against all costs, expenses and damages caused by reason of any infringement of patents used in the construction and completion of the work.

Commencement and completion.

40 XIII. The Contractor will begin the work herein agreed to be performed on such date as the President shall notify him to begin, on and from which date the time hereinafter fixed for the completion of the work shall begin to run. The place where the work is to be begun will be either stated in said notice or designated on the ground by the Engineer. The commencement

EXHIBIT C-33 (*continued*).

of work by the Contractor without notice shall be deemed and taken to be a waiver on his part of notice to begin work, in which case the time for the completion of the work will begin to run on and from the date the work was commenced.

Time of performance.

- 10 XIV. The Contractor will carry on the work with such force and in such manner and order and at such places, times and seasons, including freezing weather, as may be directed by the Engineer, and will execute all the work in every respect in a thorough and workmanlike manner; and he will fully and entirely perform this contract on his part before the expiration of Three Hundred and Fifty (350) CONSECUTIVE WORKING DAYS.

- 20 Time important.

It is hereby agreed that the time designated for the performance of all the work under this contract is of the essence of this agreement, in view whereof it is hereby further agreed that a rate of progress will be maintained so that the work performed up to any time will be at least the same percentage of the total work to be performed under this contract as the net elapsed time at such time is of the total time allowed for the performance of all the work under this contract.

- 30 In this computation of the number of consecutive working days, the time during which the completion of the work has been delayed in consequence of the condition of the weather, or tides, or by any act or omission of the party of the first part, or during such period as the work has been suspended by written order of the President, or delays for which the Contractor is not responsible (all of which will be determined by the President, who shall certify to the same in writing, and whose determination and certificate thereof shall be binding and conclusive upon the Contractor), will be allowed to the Contractor and will be deducted
- 40 in computation. Sundays, and also holidays on which no work is done, will also be excluded from said computation. In case a larger amount of rock excavation than is set forth in the Engineer's Estimate shall be necessary, an allowance of one day will be made for each 25 cubic yards of such excess of rock excavated and removed in accordance with the measurement of rock

EXHIBIT C-33 (*continued*).

10 allowed by the specifications. If the completion of the work to be done under this contract shall require work or materials or both in greater amounts than those set forth in the Engineer's Estimate of Quantities, or if unforeseen obstacles are encountered in the prosecution of said work, then the time which the Contractor is delayed on account thereof will be determined and allowed by the President at the completion of the work, upon the receipt by him of a written application from the Contractor for such determination and allowance. No demand by the Contractor that the President determine and certify the matters aforesaid shall be of any effect whatsoever unless the same be made in writing and duly served upon the President prior to the filing in the office of the Comptroller of The City of the final certificate of the completion and acceptance of the work.

End of time period.

20 The time shall run against this contract until all work called for in this contract is completed to the satisfaction of the Engineer.

Liquidated damages.

30 XV. In case the Contractor shall fail to complete the work hereunder in accordance with the contract within the time aforesaid, he agrees to pay to The City the sum of Fifty Dollars (\$50.00) for each and every day the time consumed in said performance and completion exceeds the time hereinbefore allowed for that purpose; which said sum, in view of the difficulty of ascertaining the loss which The City will suffer by reason of delay in the performance of the work hereunder, is hereby agreed upon, fixed and determined by the parties hereto as the liquidated damages that The City will suffer by reason of said delay and default, and not as a penalty; and The City shall and may deduct and retain the amount of such liquidated damages out of the moneys which may be due or become due under this
40 contract.

Work not provided for in contract.

XVI. If, before the commencement or completion of the work contemplated herein, it shall become necessary to do any other or further work on or near the line thereof than is provided

EXHIBIT C-33 (continued).

for in this contract, the Contractor will not in any way interfere with or molest such person or persons as the President may employ to do such work, and will carry on the work under this contract in such manner as may be ordered so as to afford all reasonable facilities for doing such other or further work; and no damage or claim by the Contractor shall be allowed therefor, except such allowance of time for delay as the President may deem reasonable.

President's right to suspend work.

XVII. The President is hereby authorized to suspend the whole or any part of the work herein contracted to be done, if he shall deem it for the interest of The City so to do. During such suspension the trenches shall be backfilled, if required, and the roadways and pavements over the same satisfactorily restored, and all materials upon the work shall be neatly piled so as not to obstruct public travel, or shall be removed from the line of work, if directed.

No damages to be claimed for delay due to other contracts.

XVIII. Should postponement or delay be occasioned by the precedence of paving or other contracts, which may have been either let or executed before the opening of the bids for this contract, the Contractor will make no claim for damages therefor nor for any damages in consequence of the street or the adjoining sewers not being in the condition contemplated by the parties at the time of making the contract; if, however, the Contractor shall be delayed in performance of his work by reason of the street or the adjoining sewers not being in such condition, or by reason of the work or any part thereof being suspended as hereinbefore provided, such allowance of time on account thereof as the President shall deem reasonable will be made.

If the work be suspended or delayed by any act or omission of The City, or for the reason that The City does not own or has not obtained possession of, or the right to enter upon the land upon which the work is to be performed, or because of any act or omission of any employee or agent of The City or any other Contractor performing work for The City, the President or whoever is directed by this contract, to make the certificate in reference to time, shall make such allowance of time for the com-

EXHIBIT C-33 (*continued*).

pletion of the work as the Engineer shall certify that the work has been delayed. No allowance whatever as damages will be made to the Contractor because of any such suspension or delays, and no claims shall be made by the Contractor on account thereof.

Allowance of time for delays.

- 10 XIX. No allowances of time for delays under the provisions of this contract nor the delivery and acceptance of any articles or materials called for by this contract, shall be deemed to be a waiver by the President of the right to abrogate this contract for abandonment or delay in the manner hereinafter provided.

Right to construct sewers, etc.

- 20 Permits for connections.

- 30 XX. Prior to the commencement of and during the progress of the work under this contract the President shall have the right to undertake, and to grant permits for any construction, reconstruction, and repairing of any pipes, sewers, basins, subway ducts and railway tracks, and any appurtenances thereof located on and adjoining the line of the work, and for any connections with and additions to such pipes, etc., and for such purposes, the President is hereby authorized to suspend work on any part of this contract, in accordance with Section XVII, and the Contractor will not interfere with nor place any obstructions in the way of any person or persons who may be engaged upon such work. The President is hereby authorized to connect, by contract or otherwise, any sewers and drains with the work built under this contract and to grant permits to any person or persons to make connections therewith at any time before it is completed; and the Contractor will not interfere with nor place obstructions in the way of such persons as may be employed in building such sewers and drains, or in making such connections, and the flow from such sewers, drains and connections will be permitted by the Contractor to discharge into the work built under this contract and the Contractor agrees to make no claim for compensation, damages or delay on account thereof. The issuance of such permits shall not be considered as an acceptance by The City of that part of the sewer into which such connections empty or flow, nor shall the Contractor on account thereof
- 40

EXHIBIT C-33 (*continued*).

be relieved from the cleaning of the sewer prior to the final examination of the work. No new connections or drains will be allowed to be made or joined to the work built under this contract unless a permit therefor has been duly issued by the President, which permit shall be shown in all cases to the Inspector of the Work.

10 Flow of sewers and drains, etc.

Drains, etc., interrupted.

Sewers, etc., to be kept clean.

XXI. The Contractor will provide at his own cost for the flow of the sewers, drains and water courses interrupted during the progress of the work, and will immediately cart away and remove all offensive matter. The flow throughout the entire
20 length of such sewers and appurtenances as are to be replaced by the work to be done under this contract will be maintained by the Contractor. The Contractor will remove at his own cost and expense all such bulkheads as may be directed from the sewers with which the work under this contract will be connected. When the permanent removal of any existing pipe
30 sewers and appurtenances and pipe drains is necessitated by the work to be done under this contract, such of the materials of such structures as may directed shall be carefully taken up, piled and left at the disposal of The City, and shall not be used in the work, and the remainder shall be removed from the work and disposed of by the Contractor. Wherever the work to be
40 built under this contract, or the trenches in which it is to be constructed, follow the line, and occupy the place of or intercept the Fire Alarm Telegraph System of The City, or any existing sewers, drains, culverts, basin connections or house connections for which permits may have been granted prior to the opening of the bids for this contract, the Contractor will make the same good, and will rebuild the Fire Alarm Telegraph System of The City and also sewers, drains, culverts, and connections, or connect the same with the sewer built under this contract, whichever he may be directed to do, at his own cost and expense. All sewers, drains, culverts, basins and basin connections rendered unnecessary by the construction of the work herein contemplated, shall be thoroughly broken up, except as otherwise hereinbefore provided, and satisfactorily filled in by the Contractor at his

EXHIBIT C-33 (*continued*).

own cost and expense, as shall also all portions of water courses in, through or across any street that may be rendered unnecessary by the construction of this work. During the progress of the work, and until the completion and acceptance thereof, the sewers, drains, basins, culverts and connections built under this contract shall be kept thoroughly cleaned throughout, and shall be left clean.

10

Sale of sand or earth.

XXII. The Contractor will not sell, nor permit to be removed from the line of the work, before the trench shall have been backfilled, any building sand or earth thrown up, except upon written permission, and then only so much as shall remain after reserving a sufficient quantity to backfill the trench and complete the paving; and the Contractor will, in all cases, backfill the trench with the same material thrown out, provided it be suitable under the provisions of the Specifications hereof; but if it be unsuitable, then, the same shall be removed from the line of work, and suitable material procured, and used for backfilling the trench, and when required, sand of proper quality and depth shall be spread on the surface to receive the pavement.

20

The Contractor hereby agrees that all excavated material and materials of construction placed by him or for him upon private property, unless by written permission of the owners or lessees thereof, will be removed by him and all damage to said property remedied by him at his own cost and expense. Unless such materials are removed and such damage remedied by the Contractor within 48 hours after the receipt by him of a written notice so to do, he agrees that the President shall be and is hereby authorized to dispose of such materials, and to remedy such damage and to deduct the expense thereof from the moneys due or to become due under this contract.

30

Contractor to give personal attention to work.

40

Not to assign or sublet.

XXIII. The Contractor will give his personal attention constantly to the faithful prosecution of the work; he will not assign, transfer, convey, sublet or otherwise dispose of this contract, or his right, title or interest in or to the same, or any part

EXHIBIT C-33 (*continued*).

thereof, without the previous consent, in writing, of the President, indorsed hereon or hereto attached; and he will not assign, by power of attorney or otherwise, any of the moneys to become due and payable under this contract, unless by and with the like consent, signified in like manner. If the Contractor shall, without such previous written consent, assign, transfer, convey, sublet or otherwise dispose of this contract, or of his right, title or interest therein, or any of the moneys due or to become due under this contract, to any other person, company or other corporation, this contract may, at the option of the President, be revoked and annulled, and The City shall thereupon be relieved and discharged from any and all liability and obligations growing out of the same to the Contractor, and to his assignee or transferee; provided that nothing herein contained shall be construed to hinder, prevent or affect an assignment by the Contractor for the benefit of his creditors, made pursuant to the statutes of the State of New York; and no right under this contract, or to any money to become due hereunder, shall be asserted against The City, in law or in equity, by reason of any so-called assignment of this contract, or any part thereof, or of any moneys due or to become due hereunder, unless authorized as aforesaid by the written consent of the President.

When Contractor is absent.

Disorderly workmen.

Contractor to provide assistance.

XXIV. Whenever the Contractor is not present on any part of the work, where it may be necessary to give directions, orders will be given by the Engineer to and shall be received and obeyed by the superintendent and foremen who may have immediate charge of the men employed on the particular work in relation to which the order may be given; and at any time, if a foreman or workman employed by the Contractor shall be declared by the Engineer to be disobedient, incompetent or disrespectful, the Contractor, on receiving written notice to that effect, will forthwith dismiss such person, and will not again employ him on any part of the work. The Contractor will provide all necessary assistance for the Engineer when required, without charge or expense to The City or Engineer.

EXHIBIT C-33 (*continued*).

Contractor to plank and bridge for traffic.

XXV. The Contractor will observe the law and all ordinance of The City in relation to obstructing the streets, keeping open passageways and protecting the same where they are exposed and would be dangerous to the public travel, and such passageways shall, as may be required, be planked or
10 bridged by the Contractor, at his own expense.

Guards and lights.

Indemnification of City.

XXVI. During the performance of the work herein set forth the Contractor will place proper guards upon and around the same for the prevention of accidents, and at night will put up and keep suitable and sufficient lights, and he will indemnify
20 and save harmless The City against and from all claims, suits and actions, of every name and description, brought against it, and all costs and damages to which it may be put on account or by reason of any injury or alleged injury to the person or property of another, resulting from the prosecution of the work, or from negligence or carelessness in the performance of the work, or in guarding the same, or from any improper materials used in its prosecution, or by or on account of any act or omission of the Contractor, or his agents; and the Contractor agrees that
30 the whole or so much of the moneys due to the Contractor under and by virtue of this contract, as shall or may be considered necessary by the Comptroller of The City, may at its option, be retained by The City until all such suits and claims for damages as aforesaid shall have been settled, and evidence to that effect furnished to the satisfaction of the Comptroller.

Contractor to make repairs.

XXVII. In case any injury is done to property along
40 the line of the work, or to any sidewalk, in consequence of any act or omission on the part of the Contractor or his employees or agents in carrying out any of the provisions or requirements of this contract, the Contractor will make such repairs as are necessary in consequence thereof, at his own expense and to the satisfaction of the President, and in case of failure on the part of the Contractor to promptly make such repairs, they may be

EXHIBIT C-33 (continued).

made by the President, and the expense thereof will be deducted out of the moneys due or to become due under this contract.

Loss or damage to be assumed by Contractor.

10 XXVIII. The Contractor agrees to assume, and to make no claim on account of, any and all loss or damages arising out of the nature of the work to be done under this contract, or from any unforeseen obstructions or difficulties which may be encountered in the prosecution of the same, or from the action of the elements, or from incumbrances on or near the line of the work, or from the breaking of water mains, sewers and gas mains, on or near the line of the work.

Claims for labor, etc.

20 XXIX. The Contractor will pay promptly, and in cash, for all labor employed upon and all materials furnished and used in the work, and if at any time before or within thirty days after the whole work herein agreed to be performed has been completed and accepted by The City, any person or persons claiming to have performed any labor or furnished any materials toward the performance and completion of the contract, shall file with the President and with the Comptroller of The City any such notice as is described in the Lien Law or any act of the Legislature of the State of New York, then, and in every
30 such case, The City shall retain — anything herein contained to the contrary thereof notwithstanding — from the moneys under its control, and due or to become due under this contract, so much of the moneys as shall be sufficient to pay off, satisfy and discharge the amount in such notice alleged or claimed to be due to the person or persons filing such notice, together with the reasonable cost of any action or actions brought to enforce such claim or the lien created by the filing of such notice. The money so retained shall be retained by The City until the lien thereon created by the said act and the filing of said notice shall be discharged, pursuant to the provisions of the said act.
40

Contractor will prevent filing of liens, etc.

XXX. The Contractor will not, at any time, suffer or permit any lien, attachment, or other incumbrances, under the law of this State or otherwise, by any person or persons whom-

EXHIBIT C-33 (continued).

soever, to remain on file in the Finance Department or at the office of the City Department having supervision of the work against any money due or to become due for any work done or materials furnished under this contract, or by reason of any other claim or demand against the Contractor; and any such lien, attachment, or other incumbrance, until it is removed, shall preclude any and all claim or demand for any payment whatsoever under or by virtue of this contract.

Evidences of satisfaction of liens, etc.

The Contractor further agrees that he will present to the party of the first part satisfactory evidence that all just liens, claims and demands of his employees, or of parties from whom materials used in the construction of the work may have been purchased or procured are fully satisfied and that the materials furnished and work done under this contract are fully released from all such liens, claims and demands before said party of the second part will demand or shall receive the sums due on final payment under this contract.

Notice to gas companies, etc.

Not to hinder other companies.

XXXI. At least twenty-four hours before breaking ground for the work under this contract the Contractor will give notice in writing to all gas, railroad and other companies owning or controlling any pipe, tracks or other structures which during the progress of the work may be affected by the prosecution of the same so that said companies may protect or remove their structures and he will not cause any hindrance to, or interference with, any such gas company or other company or companies in protecting their said pipes, tracks or other structures, nor in removing or otherwise protecting and replacing the main and service pipes, lamp-posts, lamps, tracks or other structures where necessary, but the Contractor will suffer the said company or companies to take all such measures as are requisite for the purpose aforesaid. But if said gas, railroad, or other companies, within five days after receipt of such notice, fail to support, remove or otherwise protect their structures the Contractor will, upon the approval of the President, protect or remove the same,

EXHIBIT C-33 (*continued*).

it being expressly understood that the cost thereof shall not be a charge against The City, but shall be a matter for adjustment between the Contractor and the company or companies concerned.

Pipes, conduits, etc., of private companies.

10 XXXII. It is hereby agreed that The City is not responsible or liable for the support, protection or reconstruction of such gas pipes, conduits, water pipes, tracks or structures owned by private companies enjoying special franchises or occupying any portion of the street or way on or below the surface in its streets or ways, as the Contractor admits that he has carefully examined the location of work, has made special inquiry at the offices of the companies owning, controlling or operating said pipes, conduits, tracks and structures, and he has determined to his satisfaction the character, size, location and length of such
20 pipes, conduits, tracks and structures; that he has inspected the public records of the various City Departments having cognizance and control of pipes, conduits and other sub-surface structures, and of The City's water pipes, conduits, and sewers, and he has made such further personal inspection and investigation as he deemed proper to determine the correctness of the information so obtained; and he clearly understands that The City does not insure the accuracy of such reports or information, and agrees that he will not make any claim against The City for damages or extra work caused or occasioned by his relying upon such
30 records, reports or information furnished by any City Department or any companies, either as a whole or in part.

Protection and restoration of pipes, etc., of private companies.

40 XXXIII. The Contractor agrees to confer with and to make to or entertain an offer from such private companies as own the said pipes, conduits, tracks or structures, and the Contractor further agrees to enter into an agreement with said companies by what terms and at what prices the support, protection, removal and reconstruction of the pipes, conduits, tracks and structures will be undertaken and accomplished, and in the event of the failure to make such an agreement with said companies, he will not complain nor make any demand on The City for additional compensation or pay for supporting, protecting, removing or restoring the said pipes, conduits, tracks or other structures.

EXHIBIT C-33 (*continued*).

10 XXXIII-A. If the paving between and for a distance of two (2) feet in width outside the tracks of any Street Railroad Company is disturbed by the work of this contract, the Contractor shall restore at his expense, the said pavement, and replace same in good condition to the satisfaction of the Engineer, notwithstanding anything hereinbefore, or hereinafter mentioned in these specifications.

20 XXXIII-B. The Contractor hereby agrees to secure the support and protection by the Long Island Railroad Company of its tracks and property at the points where such tracks and property are crossed by the sewer to be constructed, as herein provided and agrees to pay in advance to the said railroad company the sum of Eight Thousand, Eight Hundred Dollars (\$8,800.00) which is the cost of support and protection, as estimated by the railroad company apportioned, as follows:— Five Thousand Dollars (\$5,000.00) to support and protect the tracks at the crossing No. 1 or Beach 84th St. and Three Thousand, Eight Hundred Dollars (\$3,800.00) for crossing No. 2 or Beach 77th St. The difference, if any, between the actual cost of such work and the amount paid in advance to the railroad company, will be returned by the company to the City of New York, and the Contractor shall have no claim thereto.

Contractor to notify Department of Water Supply,

30 Gas and Electricity.

XXXIV. At least twenty-four hours before breaking ground, for the purpose of constructing the work of this contract, the Contractor agrees to give notice thereof in writing to the Department of Water Supply, Gas and Electricity.

City's water pipes, etc.

40 XXXV. If, upon excavating, it shall be found that any existing water pipes or appurtenances owned or controlled or operated by the City follow the lines, or occupy the place, of the sewer, or sewers and appurtenances, to be laid or built, as shown on the plan, such existing water pipes and appurtenances will be removed and relaid, or rebuilt, by and at the cost of the Department of Water Supply, Gas and Electricity of The City of New York; if, however, in order to facilitate the work to be

EXHIBIT C-33 (*continued*).

done under this contract, it be found desirable to temporarily remove any water pipes or appurtenances owned or controlled or operated by The City, the removal and replacing in their original positions of such water pipes and appurtenances will be done by the Department of Water Supply, Gas and Electricity for the Contractor at his cost and expense.

10 Protection of City's water pipes, etc.

20 XXXVI. The Contractor agrees to protect all water mains and service water pipes owned, controlled or operated by The City which may be affected in any manner by the work done under this contract, except as hereinbefore provided, and to protect all such water and service pipes from freezing, and if he fails to do so, the Commissioner of Water Supply, Gas and Electricity is hereby authorized to protect such main and service pipes, or in the event of their having suffered injury to replace such pipes, and recalk and repair the same immediately, as the work progresses, and the cost thereof shall be charged to the Contractor; the cost so charged shall be deducted from any sum or sums due or to become due to the Contractor under this contract, and in case such sum or sums shall be insufficient to cover such cost, the Contractor will be liable for the balance.

Protection of gas and water mains and pipes, etc.

30 XXXVII. The Contractor agrees to sustain in their places and protect all water or gas mains, conduits, subways or service pipes, steam pipes and pneumatic pipes that may be adjacent to his work, but entirely outside of the lines of the excavations as required by the specifications, and all sidewalks, curbs, stoops, areas, and all other property in the vicinity of his work, from direct or indirect injury by caving or otherwise, and he hereby assumes all expenses for direct or indirect damage which may be occasioned by injury to any of them, and he agrees
40 necessary materials and appliances on the ground, and will use the same, as required, for bracing and sheeting the sides and ends of excavations, and for sustaining and supporting any and all pipes, conduits, subways, lamp-posts and lamps or other structures that are undermined, weakened, endangered or threatened; and in case any damage or injury shall or may result to said pipes, conduits, subways, lamp-posts and lamps and other

EXHIBIT C-33 (*continued*).

10 works or structures of any gas, electric, railroad or other company whatsoever, or to any private property, through or by reason of any negligence, wilfulness, carelessness or want of skill on the part of the Contractor, his agents or servants, the Contractor hereby agrees to pay such amount as may be sufficient to cover the expense and damages occasioned by such negligence, wilfulness, carelessness or unskillfulness, and that such amount shall be charged against him; and the President is hereby authorized to deduct and retain from any moneys which may be due, or which shall become due, under this contract, a sum sufficient, in his judgment, to cover the cost of making good any such damages, expense or loss, and to apply said sum so deducted and retained to the requisite repairs or renewals, or to reimburse the parties damaged or injured.

Old water and gas pipes.

20 XXXVIII. All iron, water and gas pipes which it becomes necessary to remove shall be considered the property of The City and will be piled by the Contractor in such part or parts of the streets as may be directed, unless notice to the contrary is given him in writing, in which case he will remove the same at his own expense.

Change of grade.

30 XXXIX. In case the grade of the street shall be changed during the progress of the work, the Contractor will conform to the altered grade at the contract prices, as far as they are applicable; and for any work, for which there is no contract price, the provisions in relation to work not provided for in this contract shall apply.

Measurement of work and material.

40 XL. All quantities of work and materials to be paid for will be measured and determined, according to the plan and the working lines that may be given, and the specifications, when the work conforms thereto. No allowance will be made on any part of the work for any excess above the quantities required by such plan, lines and specifications. Should the dimensions of any part of the work, or of the materials, be less than those required by the plan, the actual quantities only will be allowed in measurement.

EXHIBIT C-33 (*continued*).

Payment on acceptance of work.

10 XLI. The Contractor will not be entitled to demand or receive payment for any portion of the work or materials unless the same has been fully completed in the manner set forth in this contract, and such completion duly certified by the Engineer, and until each and every one of the stipulations hereinbefore mentioned is complied with, and the work completed to the satisfaction of the President and accepted by him, and the final certificate of completion and acceptance thereof, signed by the President and said Engineer, filed with the Comptroller. The City will pay to the Contractor on or before the expiration of thirty days from the filing of said final certificate of completion and acceptance in the office of the Comptroller, the whole of the moneys accruing to the Contractor, under this contract, except such sum or sums of money as shall be retained under any of the provisions herein contained for that purpose, or in any law of 20 the State, or under any ordinance of The City passed prior to the date of this contract and now in force.

Moneys to be retained, for repairs to unpaved streets.

30 It is hereby further agreed that The City shall be and is hereby authorized to retain out of the moneys payable to the Contractor, during a period of six months from the date of the final completion and the acceptance by the President of the work done under this contract, the sum of \$0.06 for each linear foot of sewer, basin connection, and house connection constructed under this contract within unpaved streets, and the sum of \$0.75 for each linear foot constructed within streets repaired by the Contractor. And should the Contractor fail to make such repairs to the street under this contract within two days of the date of service of notice upon him so to do, then the President may expend such sum or any part thereof in making such repairs.

40 Payment of retained moneys to be made after six months.

It is hereby further agreed that The City, upon the expiration of the said period of six months, will pay to the said party of the second part the whole or such part of the moneys retained as may remain after the expenses of making said repairs, in the manner aforesaid, shall have been paid therefrom.

EXHIBIT C-33 (*continued*).

Termination of six month's period.

10 It is hereby further agreed that if the termination of the said period of six months after the completion and acceptance of the work done under this contract shall fall within the months of December, January, February or March, then and in that case the said months of December, January, February and March, or such part thereof as the President may determine, will not be included in the computation of said period of six months.

Final certificate to control.

20 XLII. The action of the Engineer, by which the Contractor is to be bound and concluded according to the terms of this contract, shall be that evidenced by said Engineer's final certificate, all prior certificates upon which eighty-five per centum (85%) payments may have been made being merely estimates, and subject to the corrections of such final certificate, which may be made without notice to the Contractor thereof, or of the measurements upon which the same is based. 85 per cent. payments.

30 XLIII. In case the amount of this contract, based on the Engineer's estimate and the contract prices, shall be five thousand dollars (\$5,000.00) or over the Engineer shall from time to time, as the work progresses, but not oftener than once a month, make in writing an estimate, such as in his opinion shall be just and fair, of the amount of the work done and material installed by the Contractor in the performance of this contract on his part, and of the value thereof under and according to the terms of this contract. No allowance will be made in these estimates for materials furnished and delivered until such materials shall have been permanently incorporated in the work, except as hereinafter stated. The first such estimate will be of the amount of work done and materials furnished and installed since the Contractor commenced the performance of this contract on his part, and every subsequent estimate, except the final one, will be of the amount of work done and materials furnished and installed since the last preceding estimate was made. In the estimates allowances will be made for Reinforcing Steel, Structural Steel, Pumps & Electric Motors, Valves, Cast Iron Pipe, Salt Glazed Tile Pipe 12 inches in diameter and larger sizes, 40 Precast Concrete Pipe 24 inches in diameter and larger sizes,

EXHIBIT C-33 (continued).

Stationary Screens, Mechanically Driven Screens, Cast Iron Tunnel Lining and Precast Concrete Blocks for Tunnel Lining, prior to their installation, which are owned by the Contractor and free from all liens or claims, and which have been delivered at locations where work is to be performed under this contract. Such allowances will be calculated at Eight (80) per cent. of the cost price for said materials. But no allowances will be
10 made for those materials delivered which are in excess of the quantities permitted under the specifications to be distributed along the lines of the work. The Contractor will be required to furnish, prior to the certification for payment, written evidence satisfactory to the Borough President that the Contractor is the owner of the materials upon which payment is to be certified, and that such materials are free from liens or claims. Before certifying for payment for materials aforesaid, the Contractor shall execute or have executed and delivered to The City any
20 and all instruments required to vest in The City title to such materials free from claims or liens. Title to materials certified for payment shall vest in The City upon certification of the same for payment. The Contractor, however, agrees to and does assume responsibility for the safety, care and protection of all such materials until they have been finally installed in the work and the completed work accepted by the City, and further agrees at his own cost to replace any such materials that may be lost or damaged. The aforesaid estimates of amount and quantity will not be required to be made by strict measurement, but they
30 may be made by measurement or by estimation, or partly by one and partly by the other, and it shall be sufficient if they are approximate only and estimates strictly so called. Upon each such estimate, made prior to the time of the completion of all work of laying all the sewers and appurtenances and the backfilling of trenches, said estimate being certified in writing by the Borough President and Engineer and filed with the Comptroller, The City will pay to the Contractor eighty-five per centum of the amount stated in such estimate to be the value of the work therein certified to have been done and materials certified
40 therein to have been furnished and installed, and eighty-five per cent. of eight per cent. of the cost not exceeding the contract value of materials not installed hereinabove specified; except that subsequent to the completion of all the work of laying all the sewers and appurtenances and the backfilling of the trenches, The City will pay to the Contractor eighty-five per centum of the value of the work done and materials furnished under the

EXHIBIT C-33 (continued).

10 contract as certified by the Engineer, less the sums theretofore paid to the Contractor. No payment however, will be made unless the value of the work done and materials furnished, certified in each such estimate, shall amount to more than fifteen hundred dollars (\$1500.) and provided, that The City may at all times reserve and retain out of said instalments, or any of them, such sum or sums as by the terms hereof, or of any act of the Legislature of the State of New York, or of any ordinance of The City passed prior to the date hereof, it is or may be authorized to reserve or retain; and provided that where the Contractor, although the lowest bidder in the gross calculation, is to receive unusual or extraordinary prices for any of the different items of the work when considered separately, nothing herein contained shall be construed to affect the right of the President to determine the amount that may be due from time to time, not necessarily by the prices agreed upon in this contract, but by causing an estimate to be made of the value of the work done, 20 taking as a basis of the calculations the whole amount of money that will have become due, according to the terms of this contract, when the whole work shall be completed.

If abandoned, etc.

Contract may be declared abandoned.

Completion of work to be undertaken by President.

30 XLIV. The Contractor hereby agrees that if the work to be done under this contract shall be abandoned by him, or if this contract shall be assigned or the work sublet by him otherwise than is provided by the terms hereof, or if at any time the Engineer shall be of the opinion, and shall so certify, in writing, to the President that the performance of the contract unnecessarily or unreasonably delayed, as evidenced by its actual rate of progress compared with the required progress (See Section XIV); or that the Contractor is wilfully violating any of the 40 conditions or covenants of this contract or the specifications thereof, or is executing the same in bad faith, or not in accordance with the terms thereof, or that the work is not fully completed within the time designated in this contract for its completion, the President may declare this contract or any part thereof abandoned and notify the Contractor to discontinue all work or any part thereof under this contract, by a written notice to be

EXHIBIT C-33 (*continued*).

served upon the Contractor either personally, or by leaving said notice at his residence, or with his agent in charge of the work, or in the manner provided in Section XLV, or with any employee found on the work, and the Contractor agrees to thereupon discontinue said work or such part thereof, and he further agrees that the President shall thereupon have the power to contract
10 for the completion of the contract in the manner prescribed by law, or to place such and so many persons as he may deem advisable, by contract or otherwise, to work at and complete the work declared abandoned, and to use such plant and materials as he may find upon the line of work, and to procure other plants and materials for the completion of the same, and to charge the expense of said plant, labor and materials to the Contractor; and it is further agreed that the expense so charged shall be deducted and also liquidated damages for delay in the completion
20 of the work, as provided in Clause XV, shall be deducted and retained by The City out of such moneys as would have been payable to the Contractor if he had completed the work. And in case such expense and liquidated damages shall exceed the sum which would have been payable under this contract, if the same had been completed by the Contractor, he shall and will pay the amount of such excess to The City; and in case such expense and liquidated damages shall be less than the sum which would be payable to the Contractor, if the Contractor had completed the contract, he shall be entitled to the difference, subject to all
30 the other terms, covenants and conditions of this contract. Upon the President signing the aforesaid written notice to the Contractor to discontinue all or any part of the work, he shall have the right to take immediate possession on behalf of The City of the plant and materials upon the line of work, without notice to the Contractor, for the purpose hereinbefore specified, and no such plant or materials shall be removed so long as the same may be wanted for the work. In the computation of liquidated damages for delay in completion of the work, the time taken by The City or given to the new Contractor to whom the contract
40 for the completion of this contract may be awarded, as well as the time taken in advertising and awarding such contract, shall be added to the time consumed by the Contractor under this contract up to the date when The City shall take the action provided in this clause, and from such total there shall be deducted the time allowed to the Contractor for completing the work under this contract. When any particular part of the work shall be carried on by The City by contract or otherwise under the pro-

EXHIBIT C-33 (*continued*).

visions of this clause of the contract, the Contractor agrees to continue the remainder of the work in conformity with the terms of this contract and in such manner as in nowise to hinder or interfere with the persons or workmen employed, as above provided by The City by contract or otherwise to do any part of the work, or to complete the same under the provisions of this clause of the contract. In the event of the President undertaking to
10 have performed the work or any part thereof under this clause of the contract, his certificate as to the amount of work done, cost, and of the excess cost, if any, of completing the work called for by this contract shall be binding and conclusive upon the Contractor, his assignees and his sureties.

Notice to Contractor.

XLV. It is agreed that the residence or place of business,
20 given in the bid upon which this contract is founded, is hereby designated as the place where all notices, letters and other communications shall be served, mailed or delivered. It is further agreed that any notice, letter or other communication addressed to the Contractor and delivered at the abovenamed place, or deposited in a postpaid wrapper in any post-office box regularly maintained by the post-office, shall be deemed sufficient service thereof upon the Contractor. It is also further agreed that the place named may be changed at any time by an instrument in writing, executed and acknowledged by the Contractor and
30 delivered to the President. It is also further agreed that nothing herein contained shall be deemed to preclude or render inoperative the service of any notice, letter or other communication upon the Contractor personally.

Labor Law.

XLVI. The Contractor agrees that he will comply with the provisions of "The Labor Law". He further agrees that no laborer, workman or mechanic in the employ of the Contractor,
40 sub-contractor or other person doing or contracting to the whole or a part of the work contemplated by the contract, shall be permitted or required to work more than eight hours in any one calendar day, except in cases of extraordinary emergency, caused by fire, flood or danger to life or property; that the wages to be paid for a legal day's work or upon any material to be used thereon shall not be less than the prevailing rate for a day's work

EXHIBIT C-33 (*continued*).

in the same trade or occupation in the locality where such public work is being constructed. Each such laborer, workman or mechanic shall receive the prevailing rate of wages. This contract shall be void and of no effect unless the person or corporation, making or performing the same shall comply with the provisions of section 222 of the Labor Law.

10 No-estoppel.

XLVII. The City shall not, nor shall any Department or officer thereof be precluded or estopped by any return or certificate made or given by the President, any Engineer or other officer, agent or appointee of The City under any provision of this contract from at any time (either before or after the final completion or acceptance of the work and payment therefor pursuant to any such return or certificate), showing the true and correct amount, quality and character of the work done and materials furnished by the Contractor, or any other person under this contract, or from showing at any time that any such return or certificate is untrue and incorrect or improperly made in any particular, or that the work and materials, or any part thereof do not in fact conform to the contract; and The City shall not be precluded or estopped, notwithstanding any such return or certificate or payment in accordance therewith, from demanding and recovering from the Contractor such damages as it may sustain by reason of his failure to comply with the contract.

30 Understanding of plans and specifications.

XLVIII. The Contractor hereby distinctly and expressly declares and acknowledges that, before the signing of this contract, he has carefully read the same, and the whole thereof, together with and in connection with the plan and specifications, and that he has made such examination of this contract and of said plan and specifications, and the location where the said work is to be done, and such investigation of the work required to be done, and in regard to the material required to be furnished, as to enable him to thoroughly understand the intention of the same, and the requirements, covenants, agreements, stipulations and restrictions contained in this contract and in said plan and specifications; and distinctly agrees that he will not hereafter make any claim or demand upon The City, based upon or arising out of any alleged misunderstanding or misconception on his part

EXHIBIT C-33 (*continued*).

of the said requirements, covenants, stipulations and restrictions; and that any information given to the Contractor by the Engineer or others as to the quantities in the work, prior to, or during the progress of the work shall have no bearing or effect whatsoever, upon the total amount of work to be paid for, in the final settlement.

10 Substitution of sureties.

XLIX. Should the Comptroller at any time deem the sureties under the contract to be unsatisfactory, he shall notify the Contractor to that effect and the Contractor shall, when so notified, forthwith submit in substitution new sureties acceptable to the Comptroller. No further payments shall be deemed due or shall be made until the new sureties shall qualify and be accepted by the Comptroller.

20 [Chapter 478, Law 1916.]

L. This contract shall be void and of no effect unless the person or corporation making or performing the same shall secure compensation for the benefit of, and keep insured during the life of this contract, the employees engaged thereon, in compliance with the provisions of Chapter 41 of the Laws of 1914, known as the Workmen's Compensation Law, and acts amendatory thereof.

30

40

EXHIBIT C-33 (*continued*).

IN WITNESS WHEREOF, The President of the Borough of Queens, for and on behalf of The City of New York, and Contractor have executed this agreement in triplicate, one part of which is to remain with the President, one other to be filed with the Comptroller of The City of New York, and the third to be delivered to the Contractor.

10 THE CITY OF NEW YORK

By MAURICE E. CONNOLLY,
President of the Borough of Queens.

PATRICK MCGOVERN, INC.
Contractor.

20 By PATRICK MCGOVERN
President.

30

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40

EXHIBIT C-33 (*continued*).

The City and State of New York,
County of Queens, ss.:

10 On this 17th day of September, 1924, before me personally came Maurice E. Connolly, to me known and known to me to be the President of the Borough of Queens, of the City of New York, the person described as such and who as such executed the foregoing instrument, and he acknowledged to me that he executed the same as said President for the purposes therein mentioned.

JEFFERSON J. REILLY,
Commissioner of Deeds, New York City.

20

Certificate of acknowledgment of Contractor,
if a corporation.

The City and State of New York,
County of New York, ss.:

30 On this 12th day of September, 192 , before me personally come Mr. Patrick McGovern, to me known, who, being by me duly sworn, did depose and say that he resides in the town of Great Neck, L. I., and is the President of Patrick McGovern, Inc., the corporation described in, and which executed the foregoing instrument; that he knows the corporate seal of said company; that the seal affixed to the foregoing instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said company and that by like order he thereto signed his name and official designation.

40

MARY B. BOYCE,
Notary Public, Westchester County,
Cert. filled in N. Y. County,
Clerk's No. 504 — Register's No. 6431.

EXHIBIT C-33 (*continued*).

KNOW ALL MEN BY THESE PRESENTS, That we, Patrick McGovern, Inc., hereinafter called the "Contractor," and

The Continental Casualty Company (\$50,000.00)

Massachusetts Bonding and Insurance Company (\$100,000.00)

10 Fidelity and Deposit Company of Md. (\$125,000.00)

United States Fidelity and Guaranty Company (\$125,000.00)

hereinafter called the sureties, are held and firmly bound unto The City of New York, in the sum of Four hundred thousand DOLLARS, lawful money of the United States of America, to be paid unto THE CITY OF NEW YORK, or to its certain attorneys, successors or assigns; for which payment, well and truly to be made, we and each of us do bind ourselves, and our several
20 and respective heirs, executors, administrators and assigns, jointly and severally, firmly by these presents.

Signed, sealed and dated this 12th day of September, 1924.

WHEREAS, The above bounden Contractor, by an instrument in writing, signed by said Contractor and bearing even date with these presents, one part whereof is hereto annexed, has contracted with The City of New York, by the President of the
30 Borough of Queens, to furnish all the labor and materials, and to excavate for, build, construct and in all respects complete sewer, etc., in Hammels Boulevard, from Beach Channel Drive to Amstel Ave, etc., 5th Ward, together with all the work incidental thereto, as is fully and at large set forth and described in the contract aforesaid.

NOW, THEREFORE, The condition of the above obligation is such that if the said above bounden Contractor and its, his or their heirs, executors, administrators and assigns, or any
40 or either of them, shall well and truly, and in a good, sufficient and workmanlike manner, perform or cause to be performed the said contract, and each and every of the covenants, promises, agreements and provisions therein contained to be performed by said Contractor, and complete the same within the period therein stipulated, and in each and every respect comply with

EXHIBIT C-33 (continued).

the conditions therein contained, then this obligation to be void;
otherwise, to remain in full force and virtue.

Patrick McGovern, Inc. [L. S.]
Contractor.

By PATRICK MCGOVERN,
President.

10

Continental Casualty Company [L. S.]

By GILBERT HAMER,
Attorney-in-Fact.

By THOS. V. HALL,
Attorney-in-Fact.

20

Fidelity and Deposit Company of Maryland [L. S.]

By ROBERT J. BURNS,
Attorney-in-Fact.

Attest CHARLES M. CLARK,
Attorney-in-Fact.

#3208112

30

United States Fidelity and Guaranty Company [L. S.]

Attest ADOLPHUS A. JACKSON,
Attorney-in-Fact.

By ADOLPHUS A. JACKSON,
Attorney-in-Fact.

#277016-24

40

Massachusetts Bonding & Insurance Company [L. S.]

By ARTHUR H. POOLE,
Attorney-in-Fact.

Attest WALTER J. HAMMILL,
Attorney-in-Fact.

EXHIBIT C-33 (*continued*).

The City and State of New York,
County of New York, ss.:

10 On this 12th day of September, 1924, before me personally came Mr. Patrick McGovern, to me known, who, being by me duly sworn, did depose and say that he resides in Great Neck, L. I., that he is the President of the Patrick McGovern, Inc., the corporation described in, and which executed the above instrument, that he knows the corporate seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said Corporation and that by like order he thereto signed his name and official designation.

MARY B. BOYCE,
Notary Public.

20

F U N D S

PRESIDENT'S CERTIFICATE.

30

Funds O.K.R.

It is hereby certified that the estimated cost of the work and materials required by the within contract is Eight hundred five thousand one hundred fifty one 40-100 DOLLARS (\$805,151.-40), and is chargeable to the Street Improvement Fund of The City of New York.

40

MAURICE E. CONNOLLY,
President of the Borough of Queens.

The City of New York, Sept. 17, 1924.

EXHIBIT C-33 (*continued*).

SPECIFICATIONS

TRENCHES.

10 Length of trench.

1. Unless otherwise directed or permitted not more than 200 feet of any trench in advance of the end of the built sewer shall be open at any time; and unless written permission to the contrary is given, the trench shall be excavated to its full depth for a distance of at least 20 feet more than the minimum length of sewer permitted to be laid in it. (See paragraphs 127 and 154.) Trenches for house connection drains shall not be open on both sides of the street at the same time, unless permission has previously been given to close the street. Unless otherwise directed each trench for house connection drains shall be fully excavated for its entire length before any pipes are laid therein.

Sheeting and bracing.

2. Where necessary, the sides of the trenches and excavation sheeting may be used only where shown on the plan or directed. Sheetings shall be supported by adequate sheeting and bracing. Steel sheeting and bracing will be paid for only when left in place by written order, in which event the amount left in place will be paid for at the contract price for such material, unless specially permitted, sheeting against which concrete is placed shall not be removed and will not be paid for. The Contractor will be held accountable and responsible for the sufficiency of all sheeting and bracing used, and for all damage to persons or property resulting from the improper quality, strength, placing, maintaining or removing of the same.

40 Sheetings in soft material.

3. Where the material to be excavated is of such a character as to render it necessary, the sheeting shall be closely driven and to such depth below the bottom of the sewer as may be directed.

EXHIBIT C-33 (*continued*).

Tunneling.

4. All work shall be done in open trenches or excavations; no tunneling shall be done except with the consent of the Engineer.

Trees and stumps.

10

5. The Contractor shall grub and clear the surface over the trenches and excavations of all trees and stumps and remove the same from the work.

Materials to be disinfected.

6. If required, any or all of the excavated material shall be satisfactorily disinfected or deodoried or immediately removed from the work.

20

Roadway, sidewalks, etc., to be kept clear.

7. The excavated material and materials of construction shall be so deposited, and the work shall be so conducted as to leave open and free for traffic all crosswalks, a space on each sidewalk not less than one-third the width of such sidewalk and unless permission is given to the contrary a roadway not less than 8 feet wide for the free passage of vehicles. Street hydrants, water gates, fire alarm boxes and letter boxes shall be kept accessible for use. During the progress of the work the Contractor shall maintain such crosswalks, sidewalks and roadways in satisfactory condition, and the work shall at all times be so conducted as to cause a minimum of inconvenience to public travel, and permit of safe and convenient access to private and public property along the line of work.

30

Surplus material.

8. If all of the excavated material cannot be stored on the street in such a manner as to maintain the traffic conditions work and stored. After the construction of the sewer so much hereinbefore specified, the surplus shall be removed from the of this material as is of satisfactory quality and necessary for the purpose shall be brought back and used for backfilling the trench.

40

EXHIBIT C-33 (*continued*).

Fence.

9. Where necessary a suitable fence shall be placed along the sides of the trench to keep the streets safe for traffic.

Temporary bridges.

- 10 10. Where any crosswalk is intersected by the trench, it shall be temporarily replaced by a substantial timber bridge not less than 12 feet wide, with side railings. Where required, suitable temporary bridges for vehicles shall be provided and maintained across the trench.

Disposal of water from trenches.

- 20 11. The Contractor shall at all times during the progress of the work keep the trench and excavations free from water. The water from the trenches and excavations shall be disposed of in such a manner as will not cause injury to the public health, nor to public or private property, nor to the work completed or in progress, nor to the surface of the streets, nor cause any interferences with the use of the same by the public.

Cost to be covered.

- 30 12. The cost of all labor required to be done and all materials required to be furnished in the performance of all the work specified in paragraphs 1 to 11 inclusive, except as otherwise provided, shall be covered by all the contract prices for all the items for which there are contract prices.

EARTH EXCAVATION.

- 40 13. Earth excavations shall include the removal of all material other than ledge rock.

Width of trench for sewers, etc.

14. The minimum widths of trenches in earth for pipe sewers, house connections and other drains not over 18 inches in diameter, shall be such as to give a clearance inside the sheeting of 8 inches on each side of the pipe, and for those of larger

EXHIBIT C-33 (*continued*).

10 diameter 10 inches on each side of the pipe, exclusive of spurs and hubs; and all such trenches shall have a clear width equal to the maximum width of the cradles of the sewers to be laid in them, when such cradles are wider than the minimum widths herein specified. The minimum widths of trenches in earth, inside the sheeting, for other sewers shall be the greatest external width of the structures, including the necessary forms, to be built therein.

15. Where a riser, manhole or other appurtenance or the foundation therefor extends beyond the exterior line of the sewer or its foundation, the minimum excavation in earth required for the same shall be that contained in a prism with vertical sides and a horizontal section equal to the smallest rectangle which will enclose such appurtenance and its foundation.

20 Depth of trenches.

17. The trenches shall be excavated to the depths required for the foundations of the sewers and appurtenances shown on the plan, and where the conditions are such as to make it necessary, to such additional depths as may be directed. Where pipe is laid without a cradle, the bottom of trenches shall be excavated to fit the lower third of the pipe, and bottoms shall excavations shall be made to receive the hubs. All irregularities in the bottoms of the trenches shall be filled up to the required grade with suitable material.

30 Cost to be covered.

18. The cost of all labor required to be done and all materials required to be furnished in the performance of all the work specified in paragraphs 15 to 17 inclusive, except as otherwise provided, shall be covered by all the contract prices for all the items for which there are contract prices.

40

BACKFILLING.

Backfilling around sewers, etc.

29. Unless otherwise specified or directed, all trenches and excavations shall be backfilled immediately after the struc-

EXHIBIT C-33 (*continued*).

tures are built therein. For a depth of at least 2 feet over the top of the sewers, house connection or other drain, the material for backfilling trenches as excavated shall be clean earth, sand or rock dust. It shall be carefully deposited in uniform layers not exceeding 6 inches in depth, and unless otherwise permitted, each layer shall be carefully and solidly tamped with appropriate tools in such a manner as to avoid injuring or disturbing the completed work.

Backfilling for remainder of trench.

30. Backfilling for the remainder of the trenches as excavated shall be approved material free from organic matter and containing no stones over 10 inches in their largest dimensions. Any stones shall be so distributed through the mass that all interstices are filled with the fine material. This backfilling shall be deposited as directed, and unless otherwise permitted shall be spread in layers and solidly tamped.

Backfilling around basin manholes, etc.

31. Backfilling within 2 feet of manholes, house connection drains, and other structures shall be of the same quality as that specified in paragraph 29. It shall be uniformly deposited on all sides and unless otherwise permitted, solidly tamped in such a manner as to avoid injuring the structures or producing unequal pressures thereon.

Puddling.

32. Backfilling shall, if required, be flooded or puddled with water as the work progresses, instead of being tamped.

33. When sheeting is drawn, all cavities remaining in or adjoining the trench shall be solidly filled. When sheeting is left in place, all cavities behind such sheeting shall be solidly filled as directed.

Deficiency of filling.

34. Unless otherwise shown on the plan, the trenches shall be backfilled to the height of the surface of the ground as it existed at the commencement of the work. Should there be a

EXHIBIT C-33 (*continued*).

deficiency of proper material for the purpose, the Contractor shall furnish and place such additional material as may be required.

Temporary bulkheads.

10 35. For retaining the backfilling only temporary bulkheads will be allowed over sewers, basin connections and drains. Such bulkheads shall be of stone, and they shall be removed as the trenches are backfilled.

Curves, branches, etc., not to be covered.

20 36. Sewers built on curves, house and sewer connections and intersections, ends of sewers and branches shall not be covered until the Engineer shall have inspected, measured and located the same, and given permission to backfill the trenches over them.

Removal of surplus material.

30 37. As the trenches are backfilled, the Contractor shall remove all surplus material and regrade and leave free, clear and in good order all roadways and sidewalks. During the progress of and until the final acceptance of the work, he shall maintain in good and safe condition the surface of the street over all the trenches, and promptly fill all depressions over and adjoining the trenches caused by settlement of the backfilling. In case of failure or neglect on the part of the Contractor to comply with the requirements of this paragraph within 24 hours after the service upon him of a written notice so to do, the President may furnish all materials and do all work required, and the cost thereof will be charged to the Contractor and deducted from any moneys due or to become due him under this contract. All surplus material or any part thereof shall, if required, be deposited as directed on the streets and avenues within the limits of
40 this contract, where the same are below grade, and in such a manner as to leave the surfaces of the filled material even.

Cost covered.

38. The cost of all labor required to be done and all materials required to be furnished in the performance of all the

EXHIBIT C-33 (continued).

work specified in paragraphs 30 to 37 inclusive, shall be covered by all the contract prices for all the items for which there are contract prices.

SPECIFICATIONS FOR THE CONCRETE FOR THE
SEWERS OF THE ROCKAWAY PENINSULA.

10

Adapted from the Specifications used for the Jamaica Bay Blvd.

CEMENT: All cement used in the work shall be a high grade Portland cement, of a well-established and approved brand.

It shall be the product obtained by finely pulverizing clinker produced by calcining to incipient fusion, and intimate mixture of properly proportioned argillaceous and calcareous substances, with no additions subsequent to calcination, except water and calcined or uncalcined gypsum.

The alumina content shall not be greater than six per cent (6.0%).

WEIGHT: The cement shall weigh not less than 380 pounds net, to the barrel, 4 bags of 95 pounds each being considered equivalent to a barrel.

30

FINENESS) The cement shall be dry, finely ground, of uniform color, and free from lumps. It shall leave a residue of not more than eight per cent (8%) by weight, when passed through a No. 100 sieve, and not more than twenty-two per cent (22%) when passed through a No. 200 sieve.

TENSILE STRENGTH: Standard briquettes shall develop within the periods specified, tensile strength not less than that shown in the following table:

40

NEAT CEMENT:

24 hours	175 Lbs. per sq. in.
7 days (1 day in moist air, 6 days in water)	500 " " "

EXHIBIT C-33 (continued).

	28 days (1 lay in moist air, 27 days in water)	600	“	“	“
	Mortar consisting of 1 part cement and three parts of Standard Ottawa sand, by weight:				
10	7 days (1 day in moist air, 6 days in wated)	200	“	“	“
	28 days (1 day in moist air, 2 days in water)	300	“	“	“

20 The average of the tensile strength developed at each age by the briquettes in any set made from one sample will be considered the strength of the sample at that age, excluding any results that are manifestly faulty. The average strength of briquettes at 28 days will be greater than the average strength at 7 days, and if tests are made after 28 days, the strength shall be not less than that at 28 days.

SOUNDNESS: Pats of neat cement, when tested for constancy of volume or soundness, shall remain firm and hard, and show no sign of checking, cracking, distortion or disintegration.

30 **SETTING:** Unless otherwise required, the cement shall not develop initial set in less than 30 minutes, and shall develop final set in not less than one hour, nor more than ten hours. Quick-setting cement of an approved brand sahl, if required, be kept on the work in sufficient quantity to provide for any contingency requiring the use of the same.

40 **TESTING:** The cement will be subject to such tests as the Engineer may deem necessary, and such tests will be made in accordance with the methods recommended by the Committee on Uniform Tests of Cement of the American Society for Testing Materials, but the time of setting will be made by means of the Vicat Needle.

RETESTING: Any cement which shall have been kept in storage, after testing for a sufficient time to warrant it, shall be retested. Any prior acceptance shall be considered void, and

EXHIBIT C-33 (continued).

the acceptance or rejection of the cement shall depend upon the results of the latest tests.

APPROVAL OF BRAND MAY BE RESCINDED: The Engineer may at any time rescind the approval of any brand of cement that develops objectionable qualities.

10 **SAMPLES:** The contractor shall notify the Engineer of the arrival of cement on the work, and furnish such facilities as may be required for obtaining samples for testing. Samples will be taken, so as to fairly represent the material. The number of packages sampled, and the quantity to be taken from each will depend upon the importance of the work, and the number of tests to be made. On account of the importance of the work, a large number of tests will be required.

20 **DELIVERY AND STORING:** Cement shall be delivered on the work in barrels or approved bags of uniform size, with the brand and name of the manufacturer plainly marked thereon; it shall be immediately stored in a dry place and carefully protected from the weather. A sufficient stock of cement shall be kept on the work in advance of the necessity for its use, to permit of the making of the required tests. No cement shall be used before it has been tested and accepted by the Engineer.

30 **COST TO BE COVERED:** The cost of furnishing, storing and incorporating cement in the work, and the cost of samples required for testing shall be covered by the contract prices for the structures or classes of work in connection with which the cement is used.

SAND: The minimum requirements of sand are given below but, in addition, the sand must be so graded that, when mixed with the coarser aggregate, the required density is obtained.

40 Sand shall be composed of grains of clean, sharp quartz, not softer than hard limestone; it shall be moderately coarse, preferably made up of grains of varying size, not exceeding one-eighth of an inch ($\frac{1}{8}$ "), producing a mass with low percentage of voids. It shall not contain any loam, mica, scales, silt or other objectionable inorganic matter, nor any clay or organic matter.

EXHIBIT C-33 (*continued*).

BROKEN STONE: The coarse aggregate shall be approved trap-rock, broken into roughly cubical or pyramidal fragments, or North Shore, L. I. Gravel. It must pass through a screen with circular openings one and one-quarter inches ($1\frac{1}{4}$ ") in diameter, and shall be retained on a screen with openings one-eighth of an inch ($\frac{1}{8}$ ") in diameter.

- 10 The above specified aggregate shall be clean, and sound, and so graded that, when mixed with a proper proportion of sand, as described, the resultant mixture will have not more than twenty per cent (20%) voids.

- 20 **CONCRETE:** Concrete for this sewer construction will be mixed approximately in the proportion of one part of cement, one part of sand, and two parts of trap rock or North Shore, L. I. Gravel. The Engineer will determine by examination and test where necessary, the suitability of the aggregate offered, i. e. broken stone or L. I. Gravel, and sand. After the suitability of the aggregate has been determined by the Engineer, different proportions of mixture of the sand and broken stone or gravel, will then be made so as to determine the least amount of voids attainable, i. e. the greatest density of the mixture which will be, as nearly as may be, one volume of sand to two mixture of the broken stone or gravel. After the proportions of this mixture have been determined in the manner indicated, the mixture for the concrete will be one volume of cement to the proper proportions determined for the mixture of the sand and gravel. As already
30 indicated, the final concrete mixture shall be as nearly as practicable, to one volume of cement, one volume of sand, and two volumes of the broken stone or gravel. The Engineer shall determine the proportions of this mixture from the tests indicated above.

- 40 All concrete for this sewer work, whether precast or monolithic, shall be mixed in the proportions thus determined so as to produce the greatest density possible and at the same time, give a minimum compressive test of 3,000 lbs. per sq. in. of cross sectional area, using test blocks of concrete cast in a cylindrical mold 8" in diameter and 16" long, seasoned one day in moist air and twenty-seven days in damp sand. The Engineer will make such a number of tests of the cylindrical blocks as he may consider necessary. The amount of water required in the mixing of the concrete will be determined by the Engineer, based on such

EXHIBIT C-33 (*continued*).

tests as he may consider advisable for the purpose. It may be stated that only sufficient water will be used to enable the concrete to take its place in the molds with reasonable manipulation or agitation with suitable tools. Pneumatic hammers may be required to be used by the contractor on the exteriors of the forms in order to settle the concrete properly in its place with the escape of as much air as possible.

10 Joining old and new concrete.

62. When fresh concrete is to be laid on or adjoining concrete already set, the surface of the latter shall be thoroughly cleaned, washed, and roughened, and coated with a grout of neat cement before the fresh concrete is deposited.

Forms and centers.

20 63. The Contractor shall provide all necessary forms and centres for shaping concrete wherever used. They shall be true to the required shapes and sizes, strong enough and so secured in place as to withstand all operations incidental to placing the concrete, and watertight, and the faces against which the concrete is to be placed shall be satisfactorily smooth and clean. Timber used in forms and centres for exposed faces of concrete shall be seasoned stock. Unless otherwise permitted, those surfaces of formes and centres which will be in contact with concrete shall be coated as directed with an approved lubricant;
30 when no lubricant is required such surfaces shall be thoroughly wetted just before the concrete is placed.

Removal of forms and centers.

40 64. The forms and centres shall be left in place until the concrete has set sufficiently to permit their removal without danger to the structure, and until so much of the backfilling or embankment as may be directed has been put in place. No forms or centres shall be struck or removed until permission to do so has been given.

Exposed surfaces.

65. Special care shall be used to secure a smooth and uniform finish to the surfaces of concrete which will be exposed

EXHIBIT C-33 (continued).

in the completed structure. Immediately after the removal of the forms, such surfaces, if uneven, shall be rubbed smooth to a uniform and satisfactory finish. All exposed edges of concrete shall be neatly rounded as directed, and if any voids, projections or other imperfections be found, such defects shall at once be corrected by tooling, cutting out and filling with mortar, or otherwise, as directed.

10

Depositing concrete under water.

66. Whenever it becomes necessary to place concrete under water, it shall be deposited by means of drop-bottom buckets or other approved method. Concrete so deposited shall be carefully spread without tamping.

Freezing weather.

20

67. In freezing weather, until the temperature falls to 24° F. the water used for concrete shall, if directed, be heated to an approved temperature, and if directed, 1 per cent. by weight of salt shall be added to the water for each degree Fahrenheit that the temperature of the air is below 32° F. The other materials for the concrete shall be heated sufficiently to remove all frost and ice. No concrete shall be laid when the temperature of the air is below 20° F.

30 Protection.

68. Concrete shall be allowed to set for such time as may be directed before being worked or walked upon, or before filling, backfilling or other material is placed upon or against it. It shall not be flooded with water until it has sufficiently set. Concrete shall be carefully protected from injury, from freezing and from the drying effects of the sun and wind by covering it with canvas, bagging, hay or other suitable and approved materials. Such protection shall be placed as soon as the concrete is in condition to receive it, and except in freezing weather, the covering as well as the concrete shall be kept wet for such time as may be directed.

40

Prices to cover.

69. The cost of all concrete and the requirements specified in connection therewith shall be covered by the contract price for the structure in connection with which it is used.

EXHIBIT C-33 (continued).

BRICK MASONRY.

Quality of bricks.

70. All bricks used in the work shall be sound and hard burned throughout, and of uniform size and quality. If required
10 the bricks shall be culled immediately after they are brought on the work and all bricks which are wrapped, craked or of improper quality shall be at once removed. The proportion of bats permitted will be determined according to the character and location of the work in which they are to be used.

How laid.

71. Bricks shall be satisfactorily wet when being laid and each brisk shall be laid in mortar so as to form full bed, end
20 and side joints in one operation. The joints shall be not wider than $\frac{3}{8}$ inch, except when the bricks are laid radially, in which case the narrowest part of the joint shall not exceed $\frac{1}{4}$ inch. The bricks shall be laid in a workmanlike manner, true to line, and wherever practicable the joints shall be carefully struck and pointed on the inside. Brickwork shall be laid with a satisfactory bond, and as it progresses shall be racked back in courses, unless otherwise permitted.

30

BRICKWORK.

Protection.

72. All fresh brickwork shall be carefully protected from freezing and from the drying effects of the sun and wind, and if
40 required, it shall be sprinkled with water at such intervals and for such a time as may be directed. Brickwork shall be protected from injuries of all sorts, and all portions which may become damaged or may be found defective shall be repaid, or, if directed, be removed and rebuilt.

Freezing weather.

73. In freezing weather bricks shall be heated sufficiently to remove all ice and frost.

EXHIBIT C-33 (continued).

Cost of brick masonry.

74. The cost of all brick masonry and the requirements specified in connection therewith shall be covered by the contract price for the structure in connection with which it is used.

10

STRUCTURAL STEEL.

Quality.

75. Structural steel shall be medium steel and rivet steel made by the open hearth process and shall conform to the latest revised Standard Specifications for Structural Steel for Buildings adopted by the American Society for Testing Materials, and such tests as may be required shall be made in accordance therewith and at the places hereinafter specified. The chemical and physical properties of the steel shall be as follows:

Properties considered medium steel Rivet steel.

Phosphorus (maximum) 0.06 per cent. 0.06 per cent.

Ultimate tensile strength, pounds
per sq. inc. 55,000-65,000 48,000-58,000

30 Yield point (minimum) pounds
per sq. in. 1/2 ult. tens. str. 1/2 ult. tens. str.

Elongation, per cent. in 8 inches
(minimum) 1,400,000 1,400,000

Character of fracture ult. tens. str. ult. tens. str.
Silky Silky

Cold bend without fracture ... 180° to diameter 180° flat
of 1 thickness

40

Finish.

76. All finished material shall be free from injurious seams, flaws and cracks, and have a workmanlike finish.

EXHIBIT C-33 (*continued*).

Variation in weight.

77. When steel is inspected at the mill or shop, all pieces (except plates), which vary in weight more than $2\frac{1}{2}$ per cent. from that specified, shall be rejected; when steel is not inspected until it is delivered on the work, such variation in weight will be sufficient cause for rejection when in the judgment of the Engineer the safety of the work will be impaired thereby.

Workmanship.

78. All structural steel shall be in accordance with the plan and approved shop drawings. All details not shown on the plan, and all workmanship and finish shall be equal to the best current practice in similar work for buildings.

Anchor bolts.

79. Anchor bolts and expansion bolts shall be furnished where required and set in place as directed. When holes are drilled in masonry or concrete for such bolts, the holes shall be washed clean and the bolts shall be firmly embedded in a mortar composed of equal parts of cement and sand, unless other materials is shown on the plan.

Melt numbers.

80. Test specimens and every finished piece of steel shall be stamped with melt or blow number, except that small pieces may be shipped in bundles securely wired together, with the melt or blow number on a metal tag attached.

Tests and inspections.

81. The required tests and inspections of structural steel shall, if directed, be made at the mills and shops by The City's authorized inspector. The Contractor shall notify The City as to the mills and shops which are to supply the steel, sufficiently in advance to enable The City to arrange for such tests and inspections and the mills and shops shall afford every facility for making the same.

EXHIBIT C-33 (continued).

Mill certificates.

82. If it is decided not to make The City's tests and inspections at the mills, then mill certificates showing the properties of each melt of which the steel is made will be accepted for consideration.

10 Shipping invoices.

83. The Contractor will be required to furnish complete copies of shipping invoices with each shipment of steel.

Certificates, etc., for information only.

20 84. Steel will not be accepted until the required inspector's reports or mill certificates are received. All tests, inspections, reports and certificates are for the information of the Engineer, and he shall not be precluded on account thereof from requiring or making any further tests which he may deem necessary.

Shop drawings.

30 85. The Contractor shall prepare complete and accurate shop drawings of all steel work, and no shop work shall be done until such drawings shall have been approved. The Contractor shall furnish the Engineer with 3 complete sets of prints of the approved shop drawings.

Painting.

40 86. All steel shall be thoroughly cleaned of scale, rust, oil and dirt, and unless otherwise directed, those parts which are not to be bedded in concrete shall be painted with a priming coat of the best red lead and linseed oil or such other paint of equivalent value as may be directed. After erection, the metal which will be exposed in the finished work shall be evenly painted with 2 coats of approved paint. No painting shall be done on wet surfaces.

Measurement.

87. The amount of structural steel paid for as such will be all structural steel placed in the work in accordance with the

EXHIBIT C-33 (*continued*).

plan or directions, except any excess greater than 2½ per cent. above the weight required, and except such structural steel shown on the plan as being part of structures for which there are contract prices, and the cost of which is hereinafter specified to be covered by the contract prices for such structures.

10 Price to cover.

88. The contract price for structural steel shall cover the cost of all labor and materials required to furnish, fabricate, erect and paint the same, to furnish all test pieces, to prepare and furnish prints of shop drawings, and to drill holes for and set anchor and expansion bolts, where required, all as specified.

STEEL REINFORCEMENT BARS.

20 Shape.

89. Steel bars for reinforcing concrete shall be of such shape as to afford an approved mechanical bond with the concrete at frequent intervals and to insure intimate contact between the steel and concrete.

Samples.

30 90. The Contractor shall indicate the type of bars proposed to be used, and if required shall furnish samples thereof, and he is cautioned not to place the order for the bars until the type has been approved.

Size.

91. Each bar shall have a net cross sectional area equivalent to that designated on the plan or required, or it shall be the commercial size of the approved type of bar having a net cross sectional area next larger than that designated or required.

40 Variation in weight.

92. Reinforcement bars will be rejected if their actual weight varies more than 5 per cent. from their theoretical weight, as shown by the manufacturer's tables.

EXHIBIT C-33 (continued).

Quality.

93. All steel for reinforcement bars shall be made by the open hearth process, and shall conform to the latest revised Standard Specifications for Steel Reinforcement Bars adopted by the American Society for Testing Materials, and such tests as may be required, shall be made in accordance therewith, and at the places hereinafter specified. The chemical and physical properties of the steel shall be as follows:

Properties Considered	Structural Steel Grade		Cold Twisted Bars
	Plain Bars	Deformed Bars	
Phosphorus, max.			0.10
Open Hearth	0.05	0.05	0.05
Bessemer	0.10	0.10	
Ultimate Tensile Strength, pounds per sq. in.	55,000-70,000	55,000-70,000	Recorded only
Yield Point, minimum pounds per sq. in.	33,000	33,000	55,000
Elongation, minimum per cent. in 8 inches	1,400,000	1,250,000	5 per cent.
	—————	—————	
	tens. str.	tens. str.	
Cold bend without fracture:			
Bars under ¾ in. in diam. or thickness	180° to diam.	180° to diam.	180° to diam.
	of 1t.	of 1t.	of 2t.
thickness and over	180° to diam.	180° to diam.	180° to diam.
	of 1t.	of 2t.	of 3t.

1 : Nominal thickness or diameter of bar.

94. Reinforcement bars shall be rolled from billets of new steel; they shall be straight and free from seams, flaws, cracks and imperfections of all kinds.

95. Test pieces 18 inches long may be cut from any of the bars delivered on the work, and the failure of any test piece to meet the specified requirements, or the failure of any bar when being bent, will be sufficient cause for the rejection of all steel from the melt from which the test piece or bar was made.

96. Bending sheets for steel reinforcement shall be furnished, if required, in which case the reinforcement bars shall not be bent until such bending sheets have been approved.

EXHIBIT C-33 (*continued*).

Delivery and Protection.

10 97. Bars shall be delivered in bundles, to each of which shall be securely wired a metal tag with the number of the melt from which the bars were made stamped thereon. The bars shall be protected at all times from mechanical injury and from the weather and when placed in the work they shall be free from dirt, scale-rust, paint and oil. Bars which are not to be embedded in concrete within a short time after being placed in the work shall, if directed, be immediately coated with a thin grout of equal parts of cement and sand.

Cutting and bending.

20 98. The bars shall be bent to the shapes shown on the plan and in conformity with approved templates. When bars are cut and bent on the work, the Contractor shall employ competent men and shall provide the necessary appliances for the purpose.

Placing.

99. All bars shall be as long as can be conveniently used, accurately bent, placed, spaced and joined as shown or directed, and they shall be securely held in their required positions by approved devices until the concrete has been placed around them.

30 Cost covered.

100. The cost of all steel reinforcement bars and the requirements specified in connection therewith shall be covered by the contract price for the structure in connection with which it is secured.

WROUGHT IRON.

40 Quality.

101. Wrought iron shall be double rolled, tough, fibrous and uniform in quality. It shall be thoroughly welded in rolling and be free from surface defects. It shall have an ultimate tensile strength of at least 48,000 pounds per square inch, an elongation of at least 20 per cent. in 8 inches, and a fracture wholly fibrous.

EXHIBIT C-33 (*continued*).

Specimens shall bend cold, with the fiber, through 180 degrees around a diameter equal to the thickness of the piece tested. When nicked and bent the fracture shall be at least 90 per cent. fibrous.

Galvanizing.

- 10 102. Exposed wrought iron shall be thoroughly and uniformly galvanized.

Cost covered.

103. The cost of all wrought iron and the requirements specified in connection therewith shall be covered by the contract price for the structure in connection with which it is used.

20

IRON CASTINGS.

Quality.

104. Iron castings shall be of the best foundry pig iron, gray, tough and free from cold shuts, blow holes and other imperfections. The weight shall be conspicuously painted by the manufacturer with white oil paint on each casting. The castings shall be thoroughly coated with coal tar pitch varnish.

- 30 Cost covered.

105. The cost of all labor and materials required to furnish, coat and place the castings as specified, shall be covered by the contract price for the structure or class of work in connection with which they are used.

TIMBER.

Quality.

40

106. All timber except sheeting shall be long leaf yellow pine, unless otherwise specified, and shall be sound and free from shakes, cracks, large or loose knots, and other defects impairing its strength or durability. It shall be squared to the required dimensions throughout its entire length.

EXHIBIT C-33 (*continued*).

Placing.

107. Timber shall be placed where shown on the plan or directed, and where necessary shall be firmly spiked or bolted with approved nails, spikes or bolts of such sizes and lengths and at such places and in such numbers as shown on the plan, or as directed.

10 Measurement.

108. The amount of timber to be paid for as such will be all timber placed in the work in accordance with the plan or directions, except piles and timber sheeting, and except such timber shown on the plan as being part of structures for which there are contract prices, and the cost of which is hereinafter specified to be covered by the contract prices for such structures. The amount paid for will not include timber used for forms, 20 templates, centers, scaffolds, bridges (unless otherwise specified), fences, guard rails or other temporary structures, the cost of all of which shall be covered by all the contract prices for all the items for which there are contract prices. No deduction will be made in the measurement of timber flooring on account of the spaces occupied by the piles.

Price to cover.

109. The contract price, for timber shall cover the cost of 30 all labor and materials required to furnish, work, place and secure the same, as specified.

TIMBER SHEETING.

Quality, placing, etc.

110. Timber sheeting and the rangers and braces for the 40 same shall be of a satisfactory quality of timber and of sufficient size and strength to adequately support the sides of the trenches and excavations. Sheeting shall be driven in such a manner as to avoid cracking and splitting, and if required for the proper prosecution of the work, shall be tongued and grooved.

EXHIBIT C-33 (*continued*).

When paid for.

111. Timber sheeting will be paid for as such only when left in place by written order. When sheeting is left in, so much of it below the surface of the ground as may be directed shall be cut off.

10 Measurement.

112. The amount of timber sheeting to be paid for as such will be all timber sheeting, rangers and braces left in place by written order, and will not include sheeting, rangers and braces left in place without such order, nor sheeting left in place because concrete is placed against it, nor that part of the sheeting that extended above the ground after having been driven, the cost of all of which shall be covered by all the contract prices for all the items for which there are contract prices. Inclined piling or planking at the bottom of a trench if used to prevent the caving in of the excavation and in such a position that it cannot be drawn, shall be paid for at the price bid for sheet piling.

Price to cover.

113. The contract price for timber sheeting shall cover the cost of all labor and materials required to furnish, place and cut off the sheeting, rangers and braces, as specified, and shall also cover the cost of all excavation necessary to place the same.

PILES.

Quality.

114. Piles shall be of white oak, spruce or yellow pine, sound and free from splits, shakes and other imperfections impairing their strength or durability. They shall be straight, taper uniformly from butt to point and if required shall be barked. Unless otherwise shown on the plan, they shall conform to the following dimensions:

EXHIBIT C-33 (continued).

Dimensions.

	Length below cut-off.	Minimum diameter	Minimum diameter
		at point.	at cut-off.
	Less than 20 feet	6 inches.	10 inches.
	20 feet to 25 feet	6 inches.	11 inches.
10	26 feet to 35 feet	6 inches.	12 inches.
	36 feet to 45 feet	6 inches.	13 inches.
	46 feet and over	6 inches.	14 inches.

115. To determine the necessary length of piles to be used in the work, the Contractor may be required to drive test piles.

116. Each pile less than 60 feet long shall be in one piece; piles longer than 600 feet may be spliced in an approved manner. The small ends of piles shall be pointed, and, if required, shall be shot with approved iron shoes. The butt ends of piles shall be cut off square and protected with approved iron bands while driving.

How driven.

117. Piles shall be driven without the use of a follower, unless specially permitted. Pile heads that become split or broomed shall be cut off and the driving continued. Any pile which splits, breaks or drives unsatisfactorily will not be paid for, and it shall be withdrawn or abandoned and another driven in place of it. After being driven, piles shall be accurately cut off at the required elevation.

Bearing piles.

118. Bearing piles shall be driven vertically and shall be spaced as shown on the plan or as directed. They shall be driven to a satisfactory refusal by a hammer having a concave face and weighing not less than 2,000 pounds nor more than 2,500 pounds. Refusal in general will be indicated by a penetration not exceeding 1 inch per blow under the last 6 blows of the hammer falling 15 feet. If steam hammer pile drivers are used, the piles shall be driven so that their bearing power shall not be less than that of piles driven as herein specified. When it is shown on the plan or specified that piles are to be driven to a certain required depth, they shall be driven, if necessary, by the use of a water jet or by any other approved method.

EXHIBIT C-33 (*continued*).

Brace piles.

119. Where shown on the plan, brace batter or spur piles shall be driven at the inclination shown or directed, to a satisfactory refusal, and the tops shall be framed, bolted or strapped to adjoining piles or to each other as shown on the plan, or directed.

10 Measurement.

120. The amount of piles to be paid for will be the total length below cut-off of all piles remaining in the work in accordance with the plan or directions, and the total length of all piles used only as test piles. Piles driven for temporary use will not be paid for.

Price to cover.

20 121. The contract price for piles shall cover the cost of all labor and materials required to furnish, drive and cut off the same as specified, of fastening brace piles, and of furnishing and placing all shoes, bands, bars, straps, bolts and other fastenings required.

CONCRETE SEWERS.

30 (Type "A" or Sewer Department Standard.)

Inverts.

40 122. Inverts of concrete sewers shall be formed between transverse templets and shall be screeded. The templets shall be placed at such intervals as to divide the invert into sections of suitable size for convenient construction, and unless otherwise permitted the concrete shall be deposited in alternate sections and allowed to set before the remaining sections are built. Unless otherwise shown on the plan, a layer of mortar not less than $\frac{1}{2}$ inch thick shall be spread evenly and to a smoothly finished surface upon the concrete of the invert as soon as such concrete is in place. Where the radii of inverts are too short to permit screeding between templets, the inverts shall be shaped by means of suitable forms, which shall be removed as soon as the concrete

EXHIBIT C-33 (*continued*).

has a sufficient set, and if required, the surfaces of inverts shall be floated or troweled to a smooth finish. The concrete for inverts shall be deposited continuously for their entire cross sections and for such longitudinal distances as may be convenient. Inverts shall be carefully protected from all injury during progress of the work.

10 Side walls.

123. Concrete in the side walls of sewers shall be deposited continuously to the height directed and for such longitudinal distances as may be convenient.

Roofs.

20 124. Concrete in the roofs of sewers shall be deposited continuously for the full depths and widths of the roofs and for such longitudinal distances as may be convenient. The outer surfaces of roofs shall be finished with an excess of mortar and left true and smooth. They shall be covered and protected as specified in paragraph 68, and such covering shall remain thereon until the backfilling or embankment is placed.

Bulkheads.

30 125. While being deposited the concrete for sewers shall be confined by temporary, vertical bulkheads placed at such intervals longitudinally as may be required for convenient working. The bulkheads shall be so designated as to give an approved shape to the end of the section of concrete under construction, shall be satisfactorily secured in place before the concrete is deposited, and shall remain in place until the concrete has set sufficiently to hold its shape.

Reinforcement.

40 126. Where shown on the plan concrete sewers shall be reinforced with metal of the dimensions and shapes shown, and of the quality and in the manner hereinbefore specified.

Minimum length of invert.

127. Unless otherwise permitted or ordered, not less than 16 feet of foundation or invert for concrete sewer shall be built at one operation.

EXHIBIT C-33 (*continued*).

Connections.

10 128. Connections and branches for lateral sewers and basin manholes shall be built in where shown on the plan or where directed. Such connections and branches shall be closed with bulkheads of brick masonry 8 inches thick unless otherwise shown on the plan. All necessary openings and bulkheads for branch sewers shall be built in concrete sewers where shown on the plan or where directed.

Measurements.

20 129. The lengths of concrete sewers will be determined by horizontal measurements along their centre lines. No deductions will be made on account of openings at branches and manholes. The measurement of a branch concrete sewer will be made from the inner surface of the wall of the main sewer through which it enters. A reducer will be paid for at the contract price for the sewer at the larger end thereof.

Price to cover.

30 130. The contract prices for concrete sewers shall cover the cost of all necessary excavation (except rock); of furnishing, maintaining and removing all forms, centres, templets and temporary bulkheads; of all openings and bulkheads; of all back-filling; and of all labor and materials required to construct concrete sewers as shown by normal sections on the plan and as specified.

TYPE "B"

Cement Concrete Pipe With Reinforcement.

40 131. Reinforced cement concrete pipe used shall be circular in section with or without flat base and shall conform in dimensions as shown in table.

EXHIBIT C-33 (continued).

General dimensions of pipes and minimum test load per lin. ft. of pipe.

	Size	Minimum Thickness.	Minimum Length in Feet.	Minimum Joint Length Inches.	Minimum Test Load per Lin. Foot of Pipe.	
10	24"	3"	4'	3"	3350 Lbs.	
	27"	3½"	4'	3"	3700 Lbs.	
	30"	3½"	4'	3"	4400 Lbs.	
	33"	4"	4'	3"	4600 Lbs.	
	36"	4"	4'	4"	4800 Lbs.	
	39"	4"	4'	4"	5200 Lbs.	
	42"	4½"	4'	5½"	5600 Lbs.	
	45"	4½"	4'	5½"	6100 Lbs.	
	48"	5"	4'	5½"	6600 Lbs.	
	20	51"	5"	4'	5½"	7050 Lbs.
		54"	5½"	4'	5½"	7500 Lbs.
		57"	5½"	4'	5½"	7750 Lbs.
		60"	6"	4'	5½"	8000 Lbs.
		63"	6"	4'	5½"	8400 Lbs.
66"		6½"	4'	5½"	8800 Lbs.	
72"		7"	4'	5½"	9400 Lbs.	
78"		8"	4'	5½"	10400 Lbs.	
84"		8"	4'	5½"	11200 Lbs.	
90"		8½"	4'	5½"	12000 Lbs.	
30	96"	8½"	4'	5½"	12800 Lbs.	
	102"	9"	4'	5½"	13600 Lbs.	
	108"	9"	4'	5½"	14400 Lbs.	

Testing pipe.

Reinforced concrete pipe shall not have less thickness of concrete, less length of pipe or joint than specified above, and two (2) pipes for each size of sewer (reinforced concrete) shall be selected at random for a load test. These pipes shall be tested at the age of twenty-one (21) days and the total load specified per lineal foot shall be applied on the upper half or the sewer. The lower half of the pipe shall be supported in a cradles covering an arc 180 degrees. The pipe shall sustain these loads per lineal foot without hair-cracks of any kind whatsoever. Failure to fulfill the above requirements in the manner set forth will be sufficient cause for the rejection of the pipe.

EXHIBIT C-33 (*continued*).

Testing of pipe shall be done by the contractor at his own expense and under the supervision and to the satisfaction of the Engineer.

Material of pipe, cement, sand, stone, or gravel.

10 132. Reinforced concrete pipe shall be constructed at the site of the work, in a shed if the weather requires, and the pipe shall be made by a manufacturer of established reputation, who shall have had previous experience in the manufacture of reinforced concrete pipe. The cement, sand, stone or gravel shall conform to the specifications of the Division of Sewers, Bureau of Engineering Construction. The forms shall be of steel and the reinforcement steel shall be held at all times against displacement in tamping. Concrete shall be an accurate 1—1—2 mix. Each pipe shall be stamped as made with date of manufacture.

20 Joints.

133. The pipe shall be of the bell and spigot type, the bell not to project beyond the body of the pipe, but to be flush with it. No pipe having a butt joint will be considered. No variation over one-half ($\frac{1}{2}$) per cent. from the hereinbefore mentioned dimensions will be permitted.

Jointing.

30 134. All joints to be made 1 : 1 Portland cement mortar. Joints must be watertight.

Laying pipe.

135. No pipe not marked with date of manufacture shall be laid or accepted. No pipe shall be laid in the trench which has not been seasoned for twenty-one (21) days, unless otherwise specially ordered by the Engineer.

40 Steel for reinforcement.

136. Reinforcement steel may be either expanded metal, deformed bars, or wire mesh, such as American Steel & Wire Company's, or Clinton Wire Cloth. For all sizes of reinforced concrete pipe, reinforcing shall be at distances not less than one (1) inch from the surface.

EXHIBIT C-33 (*continued*).

Spurs.

137. Reinforced concrete pipe shall have openings to receive spur and branch connection wherever required by the Plans. The openings shall be made in a manner satisfactory to the Engineer.

10 Disposal of water from trenches.

138. The provisions of paragraph No. 11 of the specifications shall be in full force and effect, even though reinforced concrete pipe shall be furnished on this contract.

Rejection of defective pipe.

20 139. Pipe damaged from handling or any cause whatsoever, whether in or out of the trenches, shall be replaced and removed from site of the work at the expense of the Contractors.

Depth of cover.

139a. Where depth of cover on precast pipe sewer is sixteen feet (16') or over extra reinforcing steel shall be used in the pipe to take care of the increased stresses. The cost of such extra steel shall be included in the price bid for precast pipe sewers.

30 Measurements.

139b. Precast concrete pipe, Type "B" will be paid for from the inside face of all chambers.

VITRIFIED PIPE SEWERS.

40 Vitrified pipe.

140. Vitrified pipe sewers shall be built of shale or clay hub and spigot pipes with deep and wide sockets. They shall be thoroughly and perfectly burned, without warps, cracks or other imperfections, and shall be fully and smoothly salt-glazed over the entire inner and outer surfaces, except that the inside of the hub and the outside of the spigot may be glazed for two-

EXHIBIT C-33 (continued).

10 thirds the depth of the hub. On all other portions of the pipe the glazing shall completely cover and form an integral part of the pipe body. If not left unglazed the inside of the hub and the outside of the spigot shall be scored in 3 parallel lines extending completely around the circumference. When it is broken, vitrified pipe shall show dense and solid material, without serious cracks or laminations; it shall be of such toughness that it can be worked with a chisel and hammer, and when struck with a hammer, it shall have a metallic ring.

Identification marks.

141. Each pipe shall have clearly impressed on its outer surface the name of the manufacturer and of the factory in which it was made.

20 Shape and dimensions.

142. The sizes of the pipes are designated by their interior diameters. Each pipe shall be a cylinder with a circular section and shall have a uniform thickness. The minimum lengths, thicknesses, depths of hubs and annular spaces for the respective sizes of pipe shall be as follows:

	Size. inches.	Length. feet	Thickness. inches.	Depth of socket. inches	Annular space. inches.
30	6	2	$\frac{5}{8}$	$2\frac{1}{2}$	$\frac{5}{8}$
	8	3	$\frac{3}{4}$	$2\frac{3}{4}$	$\frac{5}{8}$
	10	3	$\frac{7}{8}$	$2\frac{3}{4}$	$\frac{5}{8}$
	12	3	1	3	$\frac{5}{8}$
	15	3	$1\frac{1}{4}$	3	$\frac{5}{8}$
	18	3	$1\frac{1}{2}$	$3\frac{1}{4}$	$\frac{5}{8}$
	20	3	$1\frac{2}{3}$	$3\frac{1}{2}$	$\frac{5}{8}$
	22	4	$1\frac{5}{6}$	$3\frac{3}{4}$	$\frac{5}{8}$
40	24	3	2	4	$\frac{5}{8}$

Curves, bends, etc.

143. Where curved pipes are required they shall be furnished in either one-eighth or one-quarter bends of their respective sizes. Curved pipe, bends, siphons, and special pipe of the sizes and forms shown on the plan shall be furnished and laid, and

EXHIBIT C-33 (continued).

unless otherwise provided, they will be paid for at the contract prices for the corresponding sizes of vitrified pipe sewers.

Samples for testing.

10 144. Any or all of the following tests may be applied to samples selected from the pipe delivered on the work. For the purposes of making such tests as may be required, the Contractor shall furnish and deliver, when and where directed, one length of pipe for each 200 feet of pipe sewer to be laid.

Crushing tests.

20 145. When supported at the bottom upon a knife edge one inch in width in such manner that an even bearing is provided throughout the whole length, exclusive of the bell, and pressure is applied at the crown uniformly through a similar knife edge, the various sizes of pipe shall withstand the following pressures:

Diameter.	Pressure.	Diameter.	Pressure.
inches	lbs. per lin. ft.	inches	lbs. per lin. ft.
6	900	18	1400
8	900	20	1550
10	1000	22	1750
12	1050	24	1950
30 15	1250		

Drop weight test.

146. When supported on a dry sand bed two inches deep, all pipe shall withstand without cracking the impact from 2 blows of a cast iron ball weighing 8 pounds falling 18 inches. Spurs shall resist without fracture the impact from 2 blows of such a ball falling 6 inches and striking on the extreme end of the hub of the spur.

40 Hydrostatic test.

147. When subjected to an internal hydrostatic pressure of 8 pounds per square inch, vitrified pipe shall show no percolation.

EXHIBIT C-33 (*continued*).

Absorption test.

148. After having been thoroughly dried and then immersed in water for 24 hours, sample pieces of pipe with all broken edges shall not absorb more than 4 per cent. of their weight of water.

10 Factory rejection.

149. The entire product of any pipe factory may be rejected when, in the judgment of the Engineer, the methods of manufacture fail to guarantee uniform results, or where the materials used are such as produce inferior pipe, as indicated by repeated failure to comply with the tests herein specified.

Cradles.

20 150. In earth trenches pipe sewers shall be laid in concrete cradles when required by the plan. In rock trenches pipe sewers shall be laid in cradles of concrete, gravel or broken stone, as shown on the plan.

Without cradle.

30 151. When the sewer is to be laid without a cradle the trench shall be excavated as specified in paragraph 17, and the earth forming the bed carefully freed of stones. The pipe shall then be evenly bedded therein, and the backfilling placed and firmly tamped in such a manner as to avoid disturbing the sewer.

Concrete cradle.

40 152. When the sewer is to be laid in a concrete cradle, the concrete for the full width of the cradle shall be deposited continuously to the height of the outside bottom of the pipe. Before the concrete has set the pipe shall be evenly bedded therein and the remainder of the concrete immediately deposited and carefully tamped in such a manner as to avoid disturbing the sewer.

Gravel or broken stone cradle.

153. When the sewer is to be laid in a gravel or broken stone cradle, the latter shall consist of clean gravel or sound

EXHIBIT C-33 (continued).

broken stone, all of which will pass through a 1¼-inch mesh, and be retained on a ⅛-inch mesh screen. The gravel or broken stone shall be deposited and tamped for the full width of the trench to the height of the outside bottom of the pipe. The pipe shall then be bedded therein and the remainder of the gravel or broken stone deposited and carefully tamped in such a manner as to avoid disturbing the sewer.

10

How laid.

154. All pipes shall be laid with ends abutting and true to line and grade. The pipes shall be fitted together and matched so that when laid in the work they will form a sewer with a smooth and uniform invert. Unless otherwise permitted or directed, not less than twelve (12) feet of pipe sewer shall be laid in one operation.

20

155. Unless otherwise shown on the plan, the joints of vitrified pipe sewers shall be made as hereinafter specified in paragraph 156.

Gasket and mortar joints.

156. Gasket and mortar joints shall be made in the following manner: a closely twisted hemp or oakum gasket of suitable diameter, in no case less than ¾-inch, and in one piece of sufficient length to pass around the pipe and lap at the top, shall be solidly rammed into the annular space between the pipes with a suitable calking tool. Before being placed, the gasket shall, if directed, be saturated with neat cement grout. The remainder of the space shall then be completely filled with plastic mortar mixed 1 to 1, and the joint wiped inside and finished to a smooth bevel outside.

30

Inspection of joints.

157. Unless otherwise permitted, at least 4 finished joints shall be left exposed for inspection throughout the working day, and the necessary staging for the protection of the exposed sewers and for the handling of excavated material shall be provided. A suitable ladder affording easy access for such inspection shall be furnished at every trench open for the proposed sewer.

40

EXHIBIT C-33 (*continued*).

Subgrade to be tested.

158. No pipe or the cradle therefor shall be laid or placed until the subgrade of the trench shall have been tested and found correct.

10 Sewer to be kept clean.

159. The interior of the sewer shall, as the work progresses, be cleared of all dirt, cement and superfluous materials of every description.

Backfilling.

20 160. Immediately after the sewer is laid the trench shall be backfilled as provided in paragraphs 29 to 37 inclusive and 157. No walking on or working upon the completed sewer (except as may be necessary in tamping the backfilling), will be permitted until the trench has been backfilled to a height of at least 2 feet over the top of the sewer.

Temporary covers.

161. The exposed ends of pipe sewers shall be provided with approved temporary covers fitted to the pipe so as to exclude earth and other materials.

30 Branch pipes.

162. Branch pipes and connection pipes shall be of the same quality and dimensions, and laid in the same manner as specified for vitrified pipe sewers. Dead ends of pipes shall be closed with bulkheads of brick masonry 8 inches in thickness.

Connection with existing work.

40 163. Wherever the proposed sewer is to connect with an existing manhole in which there is a branch pipe which is damaged or of unsuitable size or in improper position, such pipe shall be removed and be replaced with a pipe of suitable size or be reset in the proper position. The pipe so substituted or reset will be paid for at the contract price for the corresponding size of pipe sewer.

EXHIBIT C-33 (*continued*).

Pipes cut to fit masonry.

164. The ends of pipes which enter masonry shall be neatly cut to fit the face of the masonry. When directed, such cutting shall be done before the pipes are built in.

10 Measurements.

165. The length of pipe sewers to be paid for will be determined by horizontal measurements along their center lines, and no deductions will be made on account of openings at man-holes, and the measurements will be made to the inside face of all chambers.

Prices to cover.

20 166. The contract prices for vitrified pipe sewers shall cover the costs of all necessary excavation (except rock) of all concrete cradles required of all necessary trimmings, fittings, and building into masonry; of all bulkheads; of all backfilling; of all samples furnished; and of all labor and materials required to finish and lay the sewers complete in place, as shown on the plan and as specified.

CAST IRON PIPE SEWERS.

30

Cast iron pipe.

167. Cast iron pipe for sewers shall conform with the requirements of the latest revised Standard Specifications for Cast Iron Pipe adopted by the American Society for Testing Materials, and all tests required shall be made in accordance therewith.

40 168. The thickness of shell and weight of the several classes of pipe, and the allowable variations of diameter and weight shall be as follows:

EXHIBIT C-33 (continued).

	Nominal inside diam. inches.	Class A, 100 ft. head 43 lbs. pressure.		Class B, 200 ft. head 80 lbs pressure.		Class C, 300 ft. head 10 lbs. pressure.		Allowable variations	
		Thicknes. inches.	Weight. pounds.	Thickness. inches.	Weight. pounds.	Thicknes. inches.	Weight. pounds.	Diameter. inches.	Weight.
	4	0.42	240	0.45	260	0.48	280	0.06	5 p.c.
	6	0.44	370	0.48	400	0.51	430	0.06	5 p.c.
10	8	0.46	515	0.51	570	0.56	625	0.06	5 p.c.
	10	0.50	685	0.57	765	0.62	850	0.06	5 p.c.
	12	0.54	870	0.62	985	0.68	1,100	0.06	5 p.c.
	14	0.57	1 075	0.66	1,230	0.74	1,400	0.06	5 p.c.
	16	0.60	1,300	0.70	1,500	0.80	1,725	0.06	5 p.c.
	18	0.64	1,550	0.75	1,800	0.87	2,100	0.08	4 p.c.
	20	0.67	1,800	0.80	2,100	0.92	2,500	0.08	4 p.c.
	24	0.76	2,450	0.89	2,800	1.04	3,350	0.08	4 p.c.
	30	0.88	3,500	1.03	4,000	1.20	4,800	0.10	4 p.c.
20	36	0.99	4,700	1.15	5,450	1.36	6,550	0.10	4 p.c.
	42	1.10	6,150	1.28	7,100	1.54	8,600	0.10	4 p.c.
	48	1.26	8,000	1.42	9,000	1.71	10,900	0.12	4 p.c.
	54	1.35	9,600	1.55	11,200	1.90	13,700	0.15	4 p.c.
	60	1.39	11,000	1.67	13,250	2.00	16,100	0.15	4 p.c.

The above weights are for 12 feet laying lengths and standard sockets; proportionate allowance will be made for any variation therefrom.

30 Variation in thickness.

169. For pipes whose standard thickness is less than 1 inch, the thickness of metal in the body of the pipe shall not be more than 0.08 inch less than the standard thickness; and for pipes whose standard thickness is 1 inch or more, the variation shall not exceed 0.10 inch, except that for areas not exceeding 8 inches in any direction, variations from the standard thickness of 0.02 inch in excess of the allowance above given will be permitted.

40 Coating.

170. All cast iron pipe shall be thoroughly and evenly coated inside and outside with coal tar pitch varnish. The coating shall be smooth, tough and tenacious when cold and shall not be brittle or have any tendency to scale off.

EXHIBIT C-33 (*continued*).

Marking.

171. The weight and class letter shall be conspicuously painted by the manufacturer with white oil paint on the inside of each pipe after the coating is hard.

10 172. Joints of cast iron pipe sewers shall be of the kind as shown on the plan.

Lead joints.

173. When lead joints are required, the inner portion of the annular space between the pipes shall be packed with clean, sound jute packing yarn, and the remaining portion shall be run full of pure soft lead and calked with suitable tools. Unless otherwise shown on the plan, the depths of the lead joints shall be 2½ inches for 6-inch to 8-inch pipe; 3 inches for 12-inch to 20 24-inch pipe, and 3½ inches for 30-inch to 48-inch pipe.

Mortar joints.

174. When gasket and mortar joints are required, they shall be made as specified in paragraph 156.

175. All the requirements, as hereinbefore specified, relating to excavation, laying, backfilling and measurement of vitrified pipe sewers shall apply, as far as they are applicable, 30 to cast iron pipe sewers.

Prices to cover.

176. The contract prices for cast iron pipe sewers shall cover the cost of all necessary excavation (except rock); of all concrete cradles required; of all bulkheads; of all backfilling; of all labor and materials required to furnish and lay the sewers complete in place, as shown on the plan and as specified.

40

SPURS FOR HOUSE CONNECTIONS.

180. Spurs for house connections shall be cast iron pipe 6 inches in diameter, as shown on plan.

EXHIBIT C-33 (*continued*).

Covers.

183. The ends of all spurs not connected with drains shall be closed with approved covers. If required such covers shall be cemented in place, and when directed the covers shall be so cemented before the pipes are lowered into the trench.

10 Price to cover.

184. The contract price for spurs shall cover the cost of all labor and materials required to furnish and place the same as specified, and the cost of furnishing and cementing the covers for the same.

DRAINS FOR HOUSE CONNECTIONS.

20

185. Where shown on the plan or where directed, drains for house connections shall be built from the risers in such a manner and for such distance as may be shown or directed.

Depth at curb.

186. House connection drains shall be laid with a minimum gradient of $\frac{1}{4}$ inch to a foot, and wherever possible the depth from established curb grade to the inner bottom of the drain at curb line shall be at least 7 feet.

30

Material.

187. Unless otherwise shown on the plan, drains for house connections shall be cast iron pipe of the quality and dimensions shown on plan. The ends of the drains shall be sealed with approved covers.

40 How laid.

188. All the requirements, as hereinbefore specified, relating to excavation, laying and backfilling of vitrified pipe sewers shall apply, as far as they are applicable, to drains for house connections.

EXHIBIT C-33 (*continued*).

Measurement.

189. The lengths of pipe drains for house connections to be paid for will be determined by measurement along their axes.

Price to cover.

10 190. The contract price for drains for house connections shall cover the cost of all necessary excavation (except rock); the cost of all backfilling; the cost of all covers, bends and specials required; and the cost of all labor and materials required to furnish and lay the drains for house connections complete in place, as specified.

RISERS.

20

191. Where shown on the plan or where directed risers for house connections shall be built in such a manner and to such height as detailed. They shall be supported and surrounded by concrete as shown on plan.

Measurement.

192. The lengths of risers to be paid for will be determined by measurements along their axes.

30

Price to cover.

193. The contract price for risers shall cover the cost of all necessary excavation (except rock); the cost of all concrete used in connection with the risers; the cost of all backfilling; the cost of all covers, bends and specials required; and the cost of all labor and materials required to construct the risers complete in place, as specified.

40

MANHOLES.

194. The masonry or concrete for manholes shall be built to within such distances of the existing surface of the ground as directed.

EXHIBIT C-33 (*continued*).

Brick manholes.

195. Brick manholes shall be formed by means of templets placed at the top and bottom with not less than 8 lines drawn between them, and they shall be smoothly and evenly plastered on the outside with a layer of mortar $\frac{1}{2}$ inch thick.

10 Concrete manholes.

196. Concrete manholes shall be built of the materials and to the sizes and dimensions shown on the plan.

Steps.

197. Galvanized wrought iron steps of the size and shape shown on the plan shall be firmly built into the manholes at vertical intervals, of about 16 inches.

20 Head and cover.

198. The manhole head and cover shall be of cast iron, and unless otherwise shown on the plan, each head, exclusive of cover, shall weigh not less than 500 pounds and each cover shall weigh not less than 160 pounds. The weight of each head and cover shall be conspicuously painted thereon by the manufacturer with white oil paint. The head shall be set on the masonry or concrete in a full bed of stiff mortar.

30 Price to cover.

199. The contract price for manholes shall cover the cost of all necessary excavation (except rock); of all backfilling; of all plastering; of all concrete slabs; of all steps; and of all labor and materials required to construct the same complete, in place, as shown on the plan and specified.

40 EMBANKMENT.

Quality.

214. Where indicated on the plan, embankment shall be made of the form and dimensions shown. It shall consist of clean

EXHIBIT C-33 (*continued*).

steam ashes or filling of the quality specified in paragraph 30, which shall contain no stone over 6 inches in its largest dimension. When the material forming the embankment contains stones, the latter shall be so distributed through the mass that all interstices are filled with fine material, and the material within 2 feet of the sewer shall be free of stones. When embankment is used as foundation it shall consist entirely of filling of the quality specified in paragraph 29.

10

How made.

215. The embankment shall be deposited and spread in horizontal layers to such an extent and at such times as may be directed. If required, such portion of the embankment as may be deemed necessary shall be made prior to the construction of the sewer or its foundation and any excavation that may be necessary for the building of the sewer and its foundation shall be made therein. When embankment is used as a foundation, the ground on which it is to be made shall be prepared by grubbing and clearing, and removing all improper material. Embankment used as foundation shall be deposited in uniform horizontal layers not exceeding 1 foot in depth, and each layer shall be thoroughly compacted by rolling or tamping or both; such embankment shall not be built upon until the expiration of . . . days after its completion.

20

Approaches.

30

216. Where the embankment obstructs or interferes in any way with any public or private roadway, the Contractor shall furnish and place all material necessary to provide suitable approaches of such widths and to such extent as shown on the plan, or as directed.

217. All embankment and approaches shall be maintained at their full dimensions until the completion of this contract.

40 Cost covered.

218. The cost of all labor and materials required to prepare the ground, to make the embankment and approaches as specified, to make all necessary excavations and backfilling therein, and to maintain the embankments and approaches at

EXHIBIT C-33 (*continued*).

their designated dimensions until the completion of this contract, shall be covered by the contract prices for cut and fill.

RESTORATION OF SURFACE AND CLEANING UP.

10 Restoration of unpaved roadways, sidewalks, etc.

219. At such time as may be directed, all unpaved roadways, gutters and sidewalks affected by the work done under this contract shall be restored by the Contractor to the same condition in which they were at the time of the opening of bids for this contract.

Pavements, etc., restored by Contractor.

20 220. If required by the plan, roadway and sidewalk pavements, crosswalks, curbs, etc., except those under guarantee for maintenance, shall be satisfactorily restored and adjusted by the Contractor at such times as may be directed. Sidewalk pavements shall be restored in whole flags, squares or sections which shall correspond in quality and appearance with the original or adjoining flags, squares or sections. All work and materials used in such restoration and adjustment shall conform in all respects to the standard specifications now in use by the
30 President for similar work and materials.

Pavements, etc., under guarantee.

40 221. All pavements, sidewalks, crosswalks, curbs, etc., existing at the time of the opening of the bids for this contract, and under guarantee for maintenance, shall be restored and adjusted by the parties responsible under such guarantee, and at the expense of the Contractor. If not so restored and adjusted during the progress of the work, the Contractor shall, when directed, pay to the President before the completion of the contract a sum of money sufficient to cover the cost of having the same restored and adjusted by the parties responsible under such guarantee, and at the charges for the restoration of the same, as set forth in their contracts relating thereto. Such sum shall be accompanied by certificates from the parties responsible for the maintenance of the pavements, sidewalks, crosswalks, curbs, etc.,

EXHIBIT C-33 (*continued*).

to the effect that such sum will be accepted by them as full payment for such restoration and adjustment.

Temporary restoration.

10 222. At such times as may be directed roadway and sidewalk pavements, cross-walks, curbs, etc., which have been removed, whether under guarantee or not, shall be temporarily restored by the Contractor to the satisfaction of the Engineer.

When new pavement is laid.

20 223. If pavement, sidewalks, crosswalks, curbs, etc., are laid where non existed at the time the bids for this contract were opened, the Contractor shall excavate and remove such portions of the pavements, sidewalks, crosswalks, curbs, etc., and their foundations as may be necessary for the prosecution of the work, but he will not be required to make a permanent restoration of them.

Trenches flooded.

 224. Before laying any pavements, sidewalks, crosswalks, curbs, etc., the trenches shall, if required, be flooded with water, as directed, and all resulting holes or depressions shall be filled and tamped solid.

30 Cleaning up.

40 225. At such times as may be directed, the Contractor shall remove from the streets all materials which were placed thereon by him as a consequence of performing this work, and which are not required by the contract to be left as part of the finished work. The entire work and portions of the streets affected thereby shall be left in a satisfactory condition. The sidewalks and crosswalks shall be swept clean of all material which may have come thereon by reason of the work under this contract, and if required, they shall be sprinkled with water during the sweeping.

EXHIBIT C-33 (*continued*).

Cost to be covered.

226. The cost of all labor required to be done and all the materials required to be furnished in the performance of all the work specified in paragraphs 219 to 225 inclusive, shall be covered by all the contract prices for all the items for which there
10 are contract prices.

All pavements disturbed by the work on this contract shall be restored by the Contractor in accordance with the specifications of the Bureau of Highways and to the satisfaction of the Engineer in charge of that Bureau.

20

30

40

EXHIBIT C-77.

EXHIBIT C-77.

(Contract between The City of New York and Muccini and Decker, for the construction of a sewer and appurtenances in Grand Ave., from 25th Street to 40th Street, Second Ward, Borough of Queens, on Aug 17, 1924).

10

THE CITY OF NEW YORK — DEPARTMENT OF FINANCE
OFFICE OF THE COMPTROLER

CONTRACT SUMMARY

20

Contractor MUCCINI AND DECKER No. 71829

Names of sureties U. S. Fidelity & Guaranty Co.

Maryland Cas. Co.

Royal Indem. Co.

Amount of Bond \$150.000

30

Date of award Aug 28, 1924 Department Pres. Boro of Queens

Date of contract Sept. 17, 1924

Date paid in full 12-13-26

DESCRIPTION OF WORK

40

For the construction of a sewer and appurtenances in Grand Ave., from 25th Street to 40th Street, Second Ward, Boro of Queens, "Type "B".

EXHIBIT (continued).

	A. E.	\$24,188.09
		44,085.00
		20,463.89
		<hr/>
		\$88,736.98
10	Originad estimate	\$240,883.91
	A. E.	88,736.98
		<hr/>
		329,620.98

ACCOUNTS TO BE CHARGED

C. F. M. 25.

20 The obligation on this surety bond ceases as to anything
occurring after July 2, 1926.

 If the conditions of the contract have been complied with,
the retained percentage (if any) is due on or after July 2, 1926.

GEORGE W. MORTAR,

Examiner.

30

40

EXHIBIT (continued).

PAYMENTS, AMOUNTS RETAINED AND EARNED.

	Date	% Payments	Amount paid to date	Amount retained to date	Amount earned to date
10	12-22-24	82,233.25	82,233.25	14,511.75	96,745.00
	3- 3-25	86,081.20	168,314.45	29,702.55	198,017.00
	5-14-25	56,996.75	225,311.20	39,760.80	265,072.00
	7-21-25	37,472.25	262,783.45	46,373.55	309,157.00
	9-15-25	10,574.00	273,357.45	48,239.55	321, 597.00
	1- 2-26 *	500.00	Condit T. 2 a/c		
		55,380.06	329,237.51	383,38	329,620.89
	11-26-26	383.38	329,620.89		
20		<u>329,620.89</u>			

IN FULL

\$500 paid on misc. voucher 135415 Rec'd 9-20-26

30

40

EXHIBIT (*continued*).

RESOLUTION

10 BOARD OF ESTIMATE AND APPORTIONMENT
CITY OF NEW YORK

(Cal. No. 164)

20 WHEREAS, The President of the Borough of Queens has transmitted to the Board of Estimate and Apportionment a copy of a resolution of the Local Board of the Newtown District, duly adopted by said Board on the 29th day of March, 1923, and approved by the Acting President of the Borough of Queens on the 9th day of April, 1923, as follows, to wit:

“RESOLVED, That this Board does hereby initiate proceedings for the said local improvement to wit:

“For the construction of a sewer and appurtenances in Grand avenue from 25th street to 40th street, Second Ward, Borough of Queens.”

30 —and which resolution is accompanied with an approximate estimate of the cost of work and the assessed value of the property benefited.

40 RESOLVED, That the Board of Estimate and Apportionment hereby authorizes the President of the Borough of Queens to prepare plans, specifications and an estimate of cost based on actual survey, and also to secure a determination of the boundary of the district of assessment; the entire expense of the work done subsequent to the date of this authorization to be charged against the Street Improvement fund and later included in the assessment.

RESOLVED, That the Board of Estimate and Apportionment will consider the authorization of the construction of the said proposed improvement after the President of the Borough of Queens has submitted a statement showing that all of the above described work has been done, that he has secured the ap-

EXHIBIT (*continued*).

10 proval of the form of contract by the Corporation Counsel, that he is prepared to place the improvement under contract as soon as he receives the consent of the Board, and that the assessment may will be completed on or before the date of payment on acceptance; this report being accompanied by a further statement showing the quantity of work to be performed under each item and the unit price thereof, the expense incurred for preliminary work, the allowance to be made for additional engineering and contingencies, the total probable cost, and the number of working days to be allowed the contractor for carrying out the work.

 A true copy of resolution adopted by the Board of Estimate and Apportionment, JUNE 13, 1924.

JAMES MATTHEWS,

Assistant Secretary,

20

30

40

EXHIBIT (*continued*).

BOARD OF ESTIMATE AND APPORTIONMENT
CITY OF NEW YORK

(Cal. No. 88-A)

10 A copy of a resolution of the Local Board of the Newtown
District, duly adopted by said Board on the 29th day of April,
1923, having been transmitted to the Board of Estimate and
Apportionment, as follows, to wit:

 “Resolved, That this Board do hereby initiate proceed-
ings for the said local improvement, to wit :

 “For the construction of a sewer and appurtenances in
Grand avenue from 25th avenue to 40th street, Second Ward,
20 Borough of Queens.”

—and thereupon, on the 13th day of June 1924, resolutions
having been adopted by the Board of Estimate and Apportionment
authorizing the President of the Borough of Queens to prepare
the necessary plans, specifications and an estimate of the cost
of the proposed improvement based on actual survey and fur-
ther resolving that the Board of Estimate and Apportionment
will consider the authorization of the construction of the pro-
posed improvement after the President of the Borough of Queens
30 has submitted certain statements as provided in the said reso-
lutions, and the said resolutions having been duly complied with
by the President of the Borough of Queens, as appears by papers
and documents on the files of the Board of Estimate and Ap-
portionment, and there having been presented to the Board of
Estimate and Apportionment an estimate in writing in such
detail as the Board has directed that the cost of the proposed
work or improvement, together with the preliminary expenses
will be the sum of \$332,400; and a statement of the assessed va-
40 lue according to the last preceding tax roll of the real estate
included within the probable area of assessment, to wit, the sum
of \$3,576,780, having also been presented; it is

 RESOLVED, That the said resolution of the Local Board
be and the same is hereby approved and the construction of the
local improvement therein provided for is hereby authorized.
This Board does hereby determine that no portion of the cost

EXHIBIT (*continued*).

and expense thereof shall be borne and paid by The City of New York, but that the whole of such cost and expense, including the aforesaid preliminary expenses, shall be assessed upon the property deemed to be benefited by the said local improvement.

A true copy of a resolution adopted by the Board of Estimate and Apportionment, AUGUST 14, 1924.

10

(Signed) PETER J. MCGOWAN,

Secretary.

20

30

40

EXHIBIT (continued).

CONTRACT NO. 71829

The City of New York

ADVICE OF AWARD OF CONTRACT

10

(This copy to be retained by Bookkeeping Division,
Department of Finance)

Dept of PRESIDENT OF THE BOROUGH OF QUEENS.

*Date August 28, 1924

Comptroller of the City of New York :

20

Please take notice that the following described contract
has this day* been awarded to Contractor Muccini and Decker,
Address 6102 - 18th Avenue, Brooklyn, N. Y.

Sureties United States Fidelity & Guaranty Co.	50,000
Maryland Casualty Co.	50,000
Royal Indemnity Co.	50,000

Amount of bond \$150,000.00

30

DETAILS OF PURPOSE OF CONTRACT

For the construction of a sewer and appurtenances in
GRAND AVENUE from 25th Street to 40th Street, Second
Ward, Borough of Queens.

TYPE "B"

40

Contract Chargeable to Code No.	Estimated Amount	Contracts Previously Awarded (Including Adjustments)	Open Market Orders Issued To Date (Including Adjustments)	Misc. Vouchers, Payrolls, and Other Charges
C.F.M. 25	\$240,883.91	\$9,874,813.33	\$17,070.88	\$421,917.80

EXHIBIT (*continued*).

Enter full titles of accounts and refer to code numbers by means of line numbers in margin.

Street Improvement Fund.

Yours respectfully,

10

MAURICE E. CONNOLLY,
President, Borough of Queens, *Head of Dept.*

* This will be the date of the entry by which the fund is charged with the estimated amount of the contract both in the department making the award and by the Department of Finance. There must therefore be no delay in forwarding this advice.

20

30

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EXHIBIT (*continued*).

City of New York

Office of

THE PRESIDENT OF THE BOROUGH OF QUEENS

10 Maurice E. Connolly,
President.

Michael J. Shugrue,
Borough Secretary.

Long Island City, September 22, 1924.

Charles L. Craig, Comptroller,
City of New York.

20 Dear Sir:—

Herewith I forward for registration in your Department
copy of the following contract:

For the construction of a sewer and appurtenances in
GRAND AVENUE from 25th Street to 40th Street,
Second Ward of the Borough of Queens.

30 Very truly yours,

MAURICE E. CONNOLLY,
President of the Borough of Queens.

Enclosure

JJR-L

40

EXHIBIT (*continued*).

City of New York

Office of the

PRESIDENT OF THE BOROUGH OF QUEENS

10 Maurice E. Connolly
President

Michael J. Shugrue,
Borough Secretary.

Long Island City September 25, 1924.

Charles L. Craig, Comptroller,
City of New York.

20 Dear Sir:—

Referring to contract No. 71,829

For the construction of a sewer and appurtenances in
GRAND AVENUE, from 25th Street to 40th Street,
Second Ward, Borough of Queens.

30 I beg to inform you that the Contractors Muccini and Decker,
6102 18th Avenue, Brooklyn, as been ordered to commence the
work embraced in said contract within seven days after the
service, by mail or otherwise, of this notice, irrespective of the
date of same.

Very truly yours,

MAURICE E. CONNOLLY,

President of the Borough of Queens.

40 MEC-JJR-L

The notice to the contractor to begin work was mailed
on September 30, 1924.

EXHIBIT (*continued*).

ENGINEERING.

Jan. 15, 1926.

M. Charles H. Graham,

Chief Engineer.

10 Sir :—

Relative to final payment, Tickler No. 21034, in the sum of \$55,880.06, for the construction of sewer in Grand Avenue, from 25th Street to 40th Street, in the Borough of Queens, Mucini & Decker, Contractor, under Contract No. 71829, I report —

20 The quantities of work enumerated in the contract are correct, and the work has been performed in substantial conformity with the contract, with the exception that the embankment covering the sewer has cracked and settled in certain spots.

I recommend that the sum of \$500.00 be withheld pending the completion of repairs, and the balance, \$55,380.06 be paid to the contractor.

Respectfully,

Assistant Engineer.

30

40

EXHIBIT (*continued*).

GENERAL RELEASE.

TO ALL TO WHOM THESE PRESENTS SHALL COME OR
MAY CONCERN, GREETING :

KNOW YE, That we, Muccini & Decker, 6102 18th Ave.,
Brooklyn, N. Y.

10

for and in consideration of the sum of Fifty five thousand,
three hundred, eighty 06/100 Dollars, lawful money of the United
States of America, to us in hand paid by the City of New York,
have remised, released and forever discharged, and by these pre-
sents do, for ourselves, our heirs, executors, administrators and
assigns, remise, release and forever discharge the said City of
New York of and from all and all manner of action and actions,
cause and causes of action, suits, debts, dues, sums of money,
accounts, reckonings, bonds, bills, specialties, covenants, con-
tracts, controversies, agreements, promises, variances, trespasses,
damages, judgments, extents, executions, claims and demands
whatsoever in law or in equity, which against said City of New
York, we ever had, now have or which we, our heirs, executors,
administrators or assigns hereafter can, shall or may have, for;
upon or by reason of a certain contract or agreement made the
17th day of Sept., A. D. 1924 by and between Muccini & Decker
and the said City of New York, for Contract No. 71829, Sewer,
Grand Ave. &c.. or by reason of any matter, cause or thing what-
soever resulting or arising therefrom, from the beginning of the
world to the day of the date of these presents. Excepting the sum
of \$383.38 retained as repairing security and the further sum of
\$500.: retained pending completion of repairs.

20

30

IN WITNESS WHEREOF, we have hereunto set our
hand and seal the 4th day of February in the year one thousand
nine hundred and twenty six.

MUCCINI & DECKER [L. S.]

40

Sealed and delivered in the presence of Ernest Muccini, partner.

W. F. HEFFERNAN.

Original delivered to Chief Audit.

EXHIBIT (*continued*).

State of New York,
County of New York, ss.:
City of New York,

10 On this 4th day of Feb., 1926, personally came and appeared before me ERNEST MUCCINI to me known and known to me to be the person described therein, and who executed the foregoing instrument and acknowledged that he executed the same for uses and purposes therein mentioned.

W. F. HEFFERNAN,
Notary Public, Commissioner of Deeds.

20

30

40

EXHIBIT (*continued*).

City of New York

Office of the

PRESIDENT OF THE BOROUGH OF QUEENS.

10 Maurice E. Connolly
President

Bernard M. Patten,
Secretary to President

Long Island City, November 25, 1925.

20 Hon. Chas. L. Craig, Comptroller,
Department of Finance,
Municipal Building,
New York City, N. Y.

Sir:—

In accordance with the recommendation of the Engineer of Sewers, this Department, I have granted an extension of time of one hundred and thirty-one (131) working days, to Messrs. Muccini & Decker, 6102 - 18th Ave., Brooklyn, N. Y., in which to complete the work in connection with Contract No. 71829 —

30 "For the construction of a sewer, etc., in GRAND AVE.,
from 25th St. to 40th St., 2nd Ward."

40 The contractor started work on this contract a few days after the order was issued to begin. After the contractor excavated to sub-grade, it was found that the nature of the material was not sufficient to stand the structure and it was found necessary to order piles driven. This condition existed for a greater portion of the contract than was anticipated and of necessity required a longer time to complete the work on account of the number of lineal feet of piles driven, the work of cutting off of the same, the placing of the timber foundation and the concrete necessary for the sewer.

The work was started just prior to the winter of 1924, and the work continued throughout the winter months, which

EXHIBIT (*continued*).

also considerably slowed up the progress. Otherwise the rate of progress was satisfactory, and it is for the above reasons that an extension of time was granted.

Very truly yours,

MAURICE E. CONNOLLY,
President of the Borough of Queens.

10

JK

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30

40

EXHIBIT (*continued*).

THE CITY OF NEW YORK — DEPARTMENT OF FINANCE

Bureau of Audit — Division of Administration

Municipal Building, Room 631

10 \$383.38.

New York, Dec 13 1926

RECEIVED from W. Berry, Comptroller, Warrant No. 174834 for the sum of Three hundred eighty three 38/100 Dollars, on account of the within Contract numbered 71829 for and in full of repairing security

Muccini & Decker

Mailed Dec 13 1926

20

W. F. HEFFERNAN,

Disbursing Clerk.

30

40

EXHIBIT (*continued*).

City of New York

Office of

THE PRESIDENT OF THE BOROUGH OF QUEENS.

10

BUREAU OF SEWERS

No 1

Sealed Bids or Proposals for the herein named work will be received at the office of the President of the Borough of Queens, on the 4th Floor of the Queens Subway Building, 68 Hunterspoint Avenue, Long Island City, Borough of Queens, in The City of New York, until 11 o'clock a. m.

ON AUGUST 28, 1924

The time allowed for the completion of the work and the full performance of the contract is 175 CONSECUTIVE WORKING DAYS.

30 The liquidated damages for each day in excess of the allowed time, as stipulated in the contract, is 30 dollars per day.

The amount of SECURITY or surety bon required will be (\$150,000.00).

40 NOTE.—All bids must be submitted upon the proper blank form of bid and in the sealed envelope prepared and furnished by the Borough President, and must be made out as required. Any bid which fails to name the price, both *in writing* and *in figures* per unit of measurement for each and every item of the proposed work where quantities are given, or is incomplete, conditional, obscure, or irregular, may be held to be informal and may be rejected, and in case of any discrepancy between the price written in and the bid and that given in figures, the price in writing will be considered as the bid. The writing must be in ink.

EXHIBIT (continued).

BID OR ESTIMATE

For the construction of a sewer and appurtenances in GRAND AVENUE, from 25th Street to 40th Street, Second Ward, Borough of Queens.

10 Made by the firm or corporation of Muccini & Decker

Address

NAME AND ADDRESS OF EACH AND EVERY MEMBER OF THE FIRM OR PRINCIPAL OFFICERS

OF THE CORPORATION.

20

NOTE.—The *bidder's name and residence or address* must be inserted herebelow, and in case of a firm, *the name and address of each and every member of the firm must be inserted.*

In case a bid shall be submitted by or in behalf of any corporation, the complete legal name and address of such corporation must be written here below, together with the name, address and title of the principal officers of the corporation.

30 Name ERNEST MUCCINI
Address 6102 - 18th Ave.

Name ALBERT DECKER
Address 83 Maple Ave, Rockville Center, L. I.

40

The party named above (of lawful age), as *Bidder, declares*: That the only person or persons interested in this bid or proposal as principal or principals is or are named above, and that no other person than herein above named has any interest in this bid or in the contract proposed to be taken; *that* this bid is made without any connection with any other person or persons making a bid for the same work or purpose; *that* the bid is in all respects fair and without collusion or fraud, and *that* no member of the Board of Aldermen, no head of a department, no chief of a bureau, deputy thereof or clerk therein, nor any other officer or employee of The City of New York, is, shall be or become,

EXHIBIT (continued).

10 directly or indirectly, interested as contracting party, partner, stockholder, surety or otherwise in the performance of the contract, or in the supplies, work or business to which it relates, or in any portion of the profits thereof; *that* he has examined the form of contract and specifications approved by the Corporation Counsel and any plans therein referred to, and that he has visited the site of the proposed work and has made himself familiar with all the existing conditions; and he proposes and agrees, if this bid be accepted, that he will contract in the form so approved, to provide, furnish and deliver all necessary work, labor, services, materials or supplies, machinery, tools, plant, and appliances, and to perform and complete all the work mentioned in said approved form of contract and specifications, and in strict accordance with the terms and conditions thereof, and that he will accept in full payment therefor the following named sums or prices:

20 The Engineer's estimate of the quantities as advertised and the nature and extent of the work and materials or supplies required, though stated with as much accuracy as is practicable in advance, are approximate only and are given to form a basis of comparison for testing bids and are not guaranteed to be accurate and are not considered as a binding feature of the contract. *Before bidding, Contractors must satisfy themselves by personal examination of the Plans, Specifications, Contract, and locaton of the proposed work,* and by such otehr means, as they
30 may prefer, as to the accuracy of the foregoing statement, and must determine for themselves, and allow for all difficulties which may be encountered in the prosecution of the work.

T Y P E "B"

- 40
1. 1,332 Linear Feet 8'-0" Reinforced Concrete Pipe Sewer (Precast Type "B"), Per Linear Foot, Fifty Five and 00-100 Dollars (\$55.00).
 2. 680 Linear Feet 8'-0" Reinforced Concrete Pipe Sewer (Precast Type "B"), on piles, including cradle and reinforcing, as shown, excluding rip-rap, piles, decking and clamping, Per Linear Foot, Eighty and 00-100 Dollars (\$80.00).

EXHIBIT (*continued*).

3. 363 Linear Feet 7'-0" Reinforced Concrete Pipe Sewer (Precast Type "B"), Per Linear Foot, Seventy and 00-100 Dollars (\$70.00).
4. 210 Linear Feet 7'-0" Reinforced Concrete Pipe Sewer (Precast Type "B"), on piles, including cradles and reinforcing, as shown, excluding rip-rap, piles, decking and clamping, Per Linear Foot, Seventy and 00-100 Dollars (\$70.00).
10
5. 536 Linear Feet 5'-6" Reinforced Concrete Pipe Sewer (Precast Type "B"), Per Linear Foot, Forty and 00-100 Dollars (\$40.00).
6. 781 Linear Feet 4'-6" Reinforced Concrete Pipe Sewer (Precast Type "B"), Per Linear Foot, Forty and 00-100 Dollars (\$40.00).
20
7. 1 Chamber in 30th Avenue at 82nd Street, Complete, One Thousand Dollars (\$1000.00).
8. 1 Chamber in 30th Avenue at 90th Street, Complete, One Thousand Dollars (\$1000.00).
9. 1 Chamber in 30th Avenue at 92nd Street, Complete, One Thousand Dollars (\$1000.00).
- 30 10. 1 Chamber in 30th Avenue at 94th Street, Complete, One Thousand Dollars (\$1000.00).
11. 1 Chamber in 30th Avenue at 95th Street, Complete, One Thousand Dollars (\$1000.00).
12. 1 Chamber in 30th Avenue between 95th and 96th Streets, Complete, One Thousand Dollars (\$1000.00).
- 40 13. 1 Chamber in 30th Avenue at 96th Street, Complete, One Thousand Dollars (\$1000.00).
14. 1 Chamber in 30th Avenue at 97th Street, Complete, One Thousand and 00-100 Dollars (\$1000.00).
15. 23 Manholes, Complete, Each, Seventy Five and 00-100 Dollars (\$75.00).

EXHIBIT (*continued*).

16. 14 Basin Manholes, Complete, Each, Seventy and 00-100 Dollars (\$70.00).
17. 22 Inlets, Complete, Each, Twenty and 00-100 Dollars (\$20.00).
- 10 18. 420 Linear Feet 12" Vitrified Pipe, Basin Connection, Per Linear Foot, One Cent (\$0.01).
19. 330 Linear Feet 10" Vitrified Pipe, Basin Connection, Per Linear Foot, One Cent (\$0.01).
20. 241 Six-inch Spurs 24" long on Reinforced Concrete Pipe Sewer (Precast Type "B"), Each, One Cent (\$0.01).
21. 100 Vertical Feet Risers for H. C. Drains, Per Vertical Foot, One Cent (\$0.01).
- 20 22. 96 Linear Feet 24" C. I. Pipe, Class "A", including lead wool joints, Per Linear Foot, Twelve and 00-100 Dollars (\$12.00).
23. 800 Tons of Rip-Rap (One man Stone), Per Ton, Seven and 00-100 Dollars (\$7.00).
24. 2,200 Cubic Yards Cut to established grade, Per Cubic Yard, One and 00-100 Dollar (\$1.00).
- 30 25. 32,600 Cubic Yards Fill to established grade, Per Cubic Yard, One Cent (\$0.01).

40 No bid will be allowed to be withdrawn, for any reason whatever, after it has been received and deposited with the President. The President expressly reserves the right to reject all bids if he shall deem it for the public interest so to do. No bid will be accepted from, nor contract awarded to, any person who is in arrear to The City of New York upon debt or contract, or who is a defaulter, as surety or otherwise, upon any obligation to The City of New York.

No bid or proposal will be received, considered and deposited unless, as a condition precedent to the reception or consideration of any proposal it be accompanied by either a certified check upon one of the State or National Banks of The City of

EXHIBIT (*continued*).

10 New York, drawn and made payable to the order of the Comptroller of the City of New York, or money to the amount of five per centum (5%) of the amount of the security or surety bond required for the faithful performance of the contract. Such check or money must not be inclosed in the sealed envelope containing the proposal, but must be either inclosed in a separate envelope addressed to the Borough President, or
20 submitted personally upon the presentation of the bid or proposal and handed to the officer or clerk of the Department who has charge of the proposal box, and who will give a proper voucher for the deposit, and no bid can be deposited in said box until such check or money has been examined by said officer or clerk and found to be correct. All such deposits, except that made by the bidder to whom the contract shall be awarded, will be returned to the person or persons making the same within three (3) days after the decision as to who shall receive the contract.
20 If the bidder to whom the contract shall have been awarded shall refuse or neglect to execute the same within five days after due notice that the contract has been awarded to him, and that the adequacy and sufficiency of the surety offered has been approved by the Comptroller, the amount of the deposit made by him shall be forfeited to and retained by The City of New York as liquidated damages for such neglect or refusal; but if he shall execute the contract and furnish the said security within the time aforesaid, the amount of the deposit shall be returned to him.

30

Each and every person bidding must sign here.

NOTE.—Each and every person bidding and named above must sign here. In the case of a firm, give the name of each and every partner in full.

Ernest Muccini [L. S.]

Albert Decker [L. S.]

40 In case a bid shall be submitted by or in behalf of a corporation, it must be signed in the full legal name of such corporation by some authorized officer or agent thereof, who shall subscribe his name and office. If prac

..... [L. S.]

EXHIBIT (*continued*).

licable, the seal of the corporation must be affixed. [L. S.]

The following affidavit must be similarly signed and sworn to:

10 **THE CITY AND STATE OF NEW YORK,**
COUNTY OF QUEENS.

The above-named bidder (s), being severally duly sworn, say, each for himself, that the several matters stated in the above bid are in all respects true.

20 **ERNEST MUCCINI**
ALERT DECKER

Subscribed and sworn to before me, this 28 day of Aug., 1924.

JEFFERSON J. REILLY,
Commissioner of Deeds.

30

40

EXHIBIT (*continued*).

FINAL AUTHORISATION RANTED BY BOARD OF
ESTIMATES & APPORTIONMENT, AUUST 14, 1924.

Cal. #37, #88, P. 55

10

NOTICE.—Bidders are particularly requested to carefully examine the Proposal for Bids, Form of Agreement, Specifications, Plan and the location of the work and the surroundings thereof before bidding.

No 3

20

CITY OF NEW YORK

Office of

THE PRESIDENT OF THE BOROUGH OF QUEENS.

BUREAU OF SEWERS

30

1924.

ASSESSMENT WORK

Proposal for Bids, Bid, Bond, Agreement and Specifications

40 For the construction of a sewer and appurtenances in
RAND AVENUE, from 25th Street to 40th Street, Second Ward,
Borough of Queens, together with all the work incidental thereto.

EXHIBIT (continued).

NOTICE TO BIDDERS.

10 Bidders are invited to tender bids on monolithic concrete sewers 27-inches and upward, these being the standards of the Sewer Department, and hereafter designated as Type "A", or on reinforced concrete pipe sewer 24-inches and upward (precast) which will be designated as Type "B", or on both types, if they so desire, but it is to be distinctly understood that no bids will be accepted on combinations of Types "A" and "B".

20 NOTICE TO BIDDERS.

Prices to be paid by The City of New York for indeterminate quantities, such as

CLASS "A" CONCRETE	15.00	"	"	"
REINFORCING STEEL .....	.06	Per	Lb.	
STRUCTURAL STEEL .....	.08	"	"	
FOUNDATION TIMBER	70.00	Per	1000 Ft. B. M.	
SHEETING & BRACING	20.00	"	"	"
30 PILING (TIMBER)	1.00	Per	Ft. driven and	
			cut-off	
STEAMS CENDERS (Delivered & Placed)	1.25	Per	Cu. Yd.	

Indeterminate quantities shall be those whose amount and necessity will be determined by the conditions encountered during the work of construction.

Time for presenting bids.

40 1. Sealed bids for the above entitled work will be received at the office of the President of the Borough of Queens, Queens Subway Building, Long Island City, in The City of New York, until 11 o'clock a. m. on Thursday August 28th, 1924.

Time allowed for completion.

2. The time allowed for the full completion of the work herein described will be One hundred and Seventy Five CONSECUTIVE WORKING DAYS.

EXHIBIT (*continued*).

Security required.

3. The amount of security required will be One hundred and Fifty Thousand Dollars (\$150,000.00).

Bidders referred to, form of agreement, etc.

10 4. Bidders are referred to the form of agreement, to the specifications and to the plan and drawings of Standard Details on file at the office of the President, and to the following Engineer's estimate of the quantity and kind of work required, the items whereof in all cases include all materials and labor necessary to fully complete said work. Price for each item shall be named, upon the sum total of which the comparison and tests of bids will be made.

20 Engineer's estimate.

TYPE "A" (OR SEWER DEPT. STANDARD).

1,332 Linear Feet 8'-0" Reinforced Concrete Sewer

680 Linear Feet 8'-0" Reinforced Concrete Sewer, on piles, excluding rip-rap, piles, decking and clamping

30 363 Linear Feet 7'-0" Reinforced Concrete Sewer

210 Linear Feet 7'-0" Reinforced Concrete Sewer, on piles, excluding rip-rap, piles, decking and clamping

536 Linear Feet 5'-6" Reinforced Concrete Sewer

781 Linear Feet 4'-6" Reinforced Concrete Sewer

1 Chamber in 30th Avenue at 82nd Street

40

1 Chamber in 30th Avenue at 90th Street

1 Chamber in 30th Avenue at 92nd Street

1 Chamber in 30th Avenue at 94th Street

1 Chamber in 30th Avenue at 95th Street

EXHIBIT (*continued*).

	1 Chamber in 30th Avenue between 95th and 96th Streets
	1 Chamber in 30th Avenue and 96th Street
	1 Chamber in 30th Avenue and 97th Street
10	23 Manholes
	14 Basin Manholes
	22 Inlets
	420 Linear Feet 12" Vitrified Pipe, Basin Connection
	330 Linear Feet 10" Vitrified Pipe, Basin Connection
20	241 Six-inch Spurs 24" long on Concrete Sewer
	100 Vertical Feet Risers for H. C. Drains
	96 Linear Feet 24" C. I. Pipe, Class "A", including lead wool joints
	800 Tons of Rip-Rap (one man stone)
	2,200 Cubic Yards Cut to established grade
30	32,600 Cubic Yards Fill to established grade

T Y P E "B"

	1,332 Linear Feet 8'-0" Reinforced Concrete Pipe Sewer (Precast Type "B")
40	680 Linear Feet 8'-0" Reinforced Concrete Pipe Sewer (Precast Type "B"), on piles, including cradle and reinforcing as shown, excluding rip-rap, piles, decking and clamping
	363 Linear Feet 7'-0" Reinforced Concrete Pipe Sewer (Precast Type "B")

EXHIBIT (*continued*).

	210	Linear Feet 7'-0" Reinforced Concrete Pipe Sewer (Precast Type "B"), on piles, including cradle and reinforcing as shown, excluding rip-rap, piles, decking and clamping
	536	Linear Feet 5'-6" Reinforced Concrete Pipe Sewer
10	781	Linear Feet 4'-6" Reinforced Concrete Pipe Sewer (Precast Type "B")
		1 Chamber in 30th Avenue at 82nd Street
		1 Chamber in 30th Avenue at 90th Street
		1 Chamber in 30th Avenue at 92nd Street
		1 Chamber in 30th Avenue at 94th Street
20		1 Chamber in 30th Avenue at 95th Street
		1 Chamber in 30th Avenue between 95th and 96th Streets
		1 Chamber in 30th Avenue and 96th Street
		1 Chamber in 30th Avenue and 97th Street
	23	Manholes
30	14	Basin Manholes
	22	Inlets
	420	Linear Feet 12" Vitrified Pipe, Basin Connection
	330	Linear Feet 10" Vitrified Pipe, Basin Connection
	241	Six-inch Spurs 24" long on Concrete Sewer
40	100	Vertical Feet Risers for H. C. Drains
	96	Linear Feet 24" C. I. Pipe, Class "A", including lead wool joints
	800	Tons of Rip-Rap (one man stone)
	2,200	Cubic Yards Cut to established grade
	32,600	Cubic Yards Fill to established grade

EXHIBIT (*continued*).

Personal examination of work.

- 10 5. The foregoing Engineer's Estimate is *approximate only* and is not to be considered as a binding feature of the contract. Bidders are required to submit their bids upon the following express conditions which apply to and become a part of every bid received. Bidders must satisfy themselves by personal examination of the location of the proposed work and surroundings thereof, and by such other means as they may prefer as to the accuracy of the foregoing estimate, and shall not at any time after submission of their bids, dispute or complain of such estimate of the Engineer, nor assert that there was any misunderstanding in regard to the quantity or kind of materials to be furnished or work to be done.

Prices to be stated in writing and in words and in figures.

- 20 6. Any bid which fails to name a price, written both in words and in figures, per unit of measurement for each of the items for which quantities are given, will be held to be informal and will be rejected. In case of any discrepancy between the price in words and that in figures, the price in words will be considered as the bid.

Prices bid to cover.

- 30 7. The prices bid must cover the cost of furnishing *all necessary materials and labor for and the complete performance of all the work* set forth in this proposal, described in the form of agreement and specifications annexed hereto, and indicated by the plan of the work on file in the office of the President, to all of which information the bidders are referred.

Rock excavation.

- 40 8. The attention of the bidders is particularly directed to the specifications relating to rock excavation.

Bids may be rejected.

9. Permission will not be given for the withdrawal of any bid within forty-five (45) days after receipt of bids, and the right is expressly reserved by the President to reject all bids if he shall deem it to the public interest so to do. No bid will be

EXHIBIT (*continued*).

accepted from, or contract awarded to, any person who is in arrears to The City of New York upon debt or contract or who is a defaulter, as surety or otherwise, upon any obligation to The City of New York.

Times and places for commencing and prosecuting work to be determined by the President.

10

10. Bidders are especially notified that the President reserves the right to determine the times and places for commencing and prosecuting the work, and that postponement or delay on the whole, or any part thereof, occasioned by the precedence of other contracts, which may be either let or executed before the opening of the bids for this work, can constitute no claim for damages nor for a reduction of the damages fixed for delay in completing the work beyond the time allowed.

20 No extra compensation.

11. The Contractor will be required to complete the entire work to the satisfaction of the President and in accordance with the agreement, the specifications and the plan of the work. No extra compensation beyond the amount payable for the several classes of work hereinbefore enumerated, which shall be actually furnished and performed at the prices bid therefor by the bidder to whom the contract is awarded, shall be due or payable for the entire materials and work.

30

Deposit to accompany bid.

12. No bid will be received or considered unless accompanied by either a certified check upon one of the National or State Banks or Trust Companies of The City of New York, or a check of such bank or trust company signed by a duly authorized officer thereof, drawn to the order of the Comptroller, or money or corporate stock or certificate of indebtedness of any nature issued by the City of New York, which the Comptroller shall approve as of equal value with the security required, to an amount of five per centum of the amount of the bond required for the faithful performance of the contract (as provided by section 420 of The Greater New York Charter, as amended). Such check or money or other form of security must not be inclosed in the sealed envelope containing the bid, but must be handed to the officer or clerk who has charge of the bidding, and no bid

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EXHIBIT (*continued*).

shall be deposited in the box provided for that purpose until such check or money or other form of security has been examined by said officer or clerk and found to be correct. All such deposits, except those of the lowest three bidders, will be returned to the persons making the same within 10 days after the opening of the bids; within three days after the awarding of the contract, the remaining deposits, except that made by the bidder whose bid
10 has been accepted, will be returned to the persons making the same. If the successful bidder shall refuse or neglect to execute the contract within five days after notice that it has been awarded to him, and that the adequacy and sufficiency of the security offered has been approved by the Comptroller, the amount of the deposit made by him shall be forfeited to and retained by The City of New York, but if he shall execute the contract and furnish the required security within the time aforesaid, the amount of his deposit will be returned to him.

20 Names of persons interested.

13. Bidders are required to state in their bids, under oath, their names and places of residence or business, the names of all persons interested with them therein, and if no other person be so interested, they shall distinctly state that fact; also, that it is made without any connection with any other person making any bid for the same purpose, and that it is in all respects fair and without collusion or fraud; and that no member
30 of the Board of Aldermen, head of a department, chief of a bureau, deputy thereof or clerk therein or officer or employee of The City of New York, is, shall be or become interested, directly or indirectly, as contracting party, partner, stockholder, surety or otherwise, in or in the performance of the contract or in the material, work or business to which it relates, or in any portion of the profits thereof. Bidders must verify by oath, in writing, the several matters stated in their bids.

Sealed bids to be submitted.

40 14. Each bid must be delivered in a sealed envelope, endorsed with the title of the work for which the bid is made, with the name of the bidder, and the date of presentation to the President at his office, on or before the date and hour hereinbefore named, at which time and place the bids received will be publicly opened by the President and read and the award of the contract made according to law as soon thereafter as practicable.

EXHIBIT (*continued*).

The person or persons to whom the contract may be awarded will be required to attend at said office with the sureties offered by him or them and execute the contract within five days from the date of the service of a notice to the effect that the contract has been so awarded and the surety accepted; and in case of failure or neglect so to do he or they will be considered as having abandoned the contract and as being in default to the City.

10 Bidders shall use blank forms to be furnished by the President.

15. Bidders shall make their bids upon the forms prepared by the President, a copy of which with the proper envelope in which to enclose the same can be obtained upon application therefor at the office of the President, Queens Subway Building, Long Island City, where the plan can be seen, as also the form of contract, including the specifications in the form approved by the Corporation Counsel.

20

MAURICE E. CONNOLLY,
President of the Borough of Queens.

The City of New York 192...

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EXHIBIT (continued).

THE CITY OF NEW YORK

Office of

10 **THE PRESIDENT OF THE BOROUGH OF QUEENS**

BUREAU OF SEWER

20 **CONTRACT FOR the construction of a sewer and appurtenances in GRAND AVENUE, from 25th Street to 40th Street, Second Ward, Borough of Queens, together with all the work incidental thereto.**

Parties.

30 **THIS AGREEMENT, made and entered into this 17th day of September, in the year one thousand nine hundred and twenty four, by and between The City of New York, party of the first part, by the President of the Borough of Queens, and Muccini and Decker of 6102-18th Ave., Brooklyn, Contractor, party of the second part, pursuant to the provisions of The Greater New York Charter, and the resolution of the Board of Estimate and Apportionment adopted on the 1th day of June, 1924, of which resolution the following is a copy:**

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EXHIBIT (*continued*).

RESOLUTION

BOARD OF ESTIMATE AND APPORTIONMENT

10

City of New York

(Cal. No. 88-A)

20 A copy of a resolution of the Local Board of the Newtown District, duly adopted by said Board on the 29th of March, 1923, and approved by the Acting President of the Borough of Queens, on the 9th day of April, 1923, having been transmitted to the Board of Estimate and Apportionment, as follows, to wit:

“Resolved, That this Board does hereby initiate proceedings for the said local improvements, to wit:

“For the construction of a sewer and appurtenances in Grand avenue from 25th street to 40th street, Second Ward, Borough of Queens.”

30 — and thereupon, on the 13th day of June, 1924, resolutions having been adopted by the Board of Estimate and Apportionment authorizing the President of the Borough of Queens to prepare the necessary plans, specifications and an estimate of the cost of the proposed improvement based on actual survey and further resolving that the Board of Estimate and Apportionment would consider the authorization of the construction of the proposed improvement after the President of the Borough of Queens had submitted certain statements as provided in the said resolutions, and the said resolutions having been duly complied with
40 by the President of the Borough of Queens, as appears by papers and documents on the files of the Board of Estimate and Apportionment, and there having been presented to the Board of Estimate and Apportionment an estimate in writing in such detail as the Board as directed that the cost of the proposed work or improvement, together with the preliminary expenses, will be the sum of \$332,400; and a statement of the assessed value according to the last preceding tax roll of the real estate

EXHIBIT (*continued*).

included within the probable area of assessment, to wit, the sum of \$3,576,780, having also been presented; it is

Resolved, That the said resolution of the Local Board be and the same is hereby approved and the construction of the local improvement therein provided for is hereby authorized. This Board does hereby determine that no portion of the cost and expense thereof shall be borne and paid by The City of New York, but that the whole of such cost and expense, including the aforesaid preliminary expenses, shall be assessed upon the property deemed to be benefited by the said local improvement.

A tru copy of resolution adopted by the Board of Estimate and Apportionment, AUGUST 14, 1924.

PETER J. MCGOWAN,

Secretary.

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EXHIBIT (*continued*).

Covenant.

WITNESSETH, That the parties to these presents, each in consideration of the agreements on the part of the other herein contained, have mutually agreed, and hereby mutually agree, the party of the first part for itself and its successors, and the party of the second part for itself, himself, of themselves, and its, his
10 or their executors, administrators, successors and assigns, as follows:

Contract.

I. The contract for the hereinbefore entitled work shall include the following, which are hereby agreed upon as forming part and parcel thereof: the Proposal for Bids, the Bid, the Bond, this Agreement and the Specifications hereto annexed; also the
20 Plan of the Work dated July 31th, 1924, filed in the office of the President of the Borough, entitled: PLAN, PROFILE and DETAILS for the construction of a sewer and appurtenances in GRAND AVENUE, from 25th Street to 40th Street, Second Ward, Borough of Queens, and also Drawings of Standard Details pertinent thereto on file in the office of the Engineer.

Party of the first part.

II. Whenever the term "The City" or a word "President," or a pronoun in place of either, is used, it refers to and means The
30 City of New York, the party of the first part hereto, of the President of the Borough of Queens, or his authorized representative.

Party of the second part.

Whenever the word "Contractor," or a pronoun in place thereof, is used, it refers to and means the party of the second part hereto.

40 Engineer described.

III. Whenever the word "Engineer," or a pronoun in place thereof, is used, it refers to and means the Engineer in Charge of Sewers, Borough of Queens, acting either directly or through assistants designated by him to act in the premises, limited to the particular duties entrusted to them. In case said Engineer may not be able to act, then such Engineer as may be designated by the President shall act in his place.

EXHIBIT (*continued*).

Terms defined.

10 IV. Whenever the word "plan" is used it refers to and means the plan of this work and the standard drawing pertinent thereto. Whenever it is provided that anything is "to be" or "to be done", "if" or "as", or "when" or "where approved," "required," "directed," "permitted," "ordered," "designated" or "deemed necessary" it shall be taken to mean approved, required, permitted, ordered, designated or deemed necessary as the case may be by the Engineer. Whenever the words "desirable," "suitable," "sufficient," "satisfactory" or others of a similar purport are used it is hereby agreed that the desirability, suitability, sufficiency, satisfactoriness or other denominated condition shall be as determined by the Engineer.

Contractor to furnish tools, proper appliances, etc.

20 V. The Contractor hereby agrees to furnish and provide all materials, labor, and appliances necessary and proper for the purpose, to excavate for, build, complete and connect in a good substantial manner, to the satisfaction of the President, and in conformity with the contract, the hereinbefore entitled work and all the work incidental thereto, and the Contractor hereby agrees to receive and accept as and for his full compensation the following prices, which are the amounts or rates at which this contract was awarded to the Contractor at the public letting thereof:

30

T Y P E "B"

Prices.

- 8'-0" Reinforced Concrete Pipe Sewer, (Precast Type "B"), Per Linear Foot, Fifty five Dollars (\$55.00).
- 40 8'-0" Reinforced Concrete Pipe Sewer, (Precast Type "B"), on piles, including cradles and reinforcing, as shown, excluding rip-rap, piles, decking and clamping, Per Linear Foot, Eighty Dollars (\$80.00).
- 7'-0" Reinforced Concrete Pipe Sewer, (Precast Type "B"), Per Linear Foot, Seventy Dollars (\$70.00).

EXHIBIT (*continued*).

- 7'-0" Reinforced Concrete Pipe Sewer, (Precast Type "B"), on piles, including cradle and reinforcing, as shown, excluding rip-rap, piles, decking and clamping, Per Linear Foot, Seventy Dollars (\$70.00).
- 5'-6" Reinforced Concrete Pipe Sewer, (Precast Type "B"), Per Linear Foot, Forty Dollars (\$40.00).
- 10 4'-6" Reinforced Concrete Pipe Sewer, (Precast Type "B"), Per Linear Foot, Forty Dollars (\$40.00).
- Chambre in 30th Avenue at 82nd Street, Complete, One thousand Dollars (\$1000.00).
- Chamber in 30th Avenue at 90th Street, Complete, One thousand Dollars (\$1000.00).
- 20 Chamber in 30th Avenue to 92nd Street, Complete, One thousand Dollars (\$1000.00).
- Chamber in 30th Avenue at 94th Street, Complete, One thousand Dollars (\$1000.00).
- Chamber in 30th Avenue at 95th Street, Complete, One thousand Dollars (\$1000.00).
- 30 Chamber at 30th Avenue at 96th Street, Complete, One thousand Dollars (\$1000.00).
- Chamber in 30th Avenue between 95th and 96th Street, Complete, One thousand Dollars (\$1000.00).
- Chamber in 30th Avenue at 97th Street, Complete, One thousand Dollars (\$1000.00).
- Manholes, Complete, Each, Seventy five Dollars (\$75.00).
- 40 Basin Manholes, Complete, Seventy Dollars (\$70.00).
- Inlets, Complete, Each, Twenty Dollars (\$20.00).
- 12" Vitrified Pipe, Basin Connection, Per Linear Foot, One Cent (\$0.01).

EXHIBIT (*continued*).

10" Vitrified Pipe, Basin Connection, Per Linear Foot, One Cent (\$0.01).

Six-inch Spurs 24" long on Reinforced Concrete Pipe Sewer, (Precast Type "B"), Each, One Cent (\$0.01).

10 Risers for H. C. Drains, Per Vertical Foot, One Cent (\$0.01).

24" C. I. Pipe, Class "A", including lead wool joints, Per Linear Foot, Twelve Dollars (\$12.00).

Rip-Rap (One man stone), Per Ton, Seven Dollars (\$7.00).

Cut to established grade, Per Cubic Yard, One Dollar (\$1.00).

Fill to established grade, Per Cubic Yard, One Cent (\$0.01).

20 Quantities are approximate only.

No extra compensation.

30 VI. The Contractor admits that the quantities of materials to be furnished and the amount of work to be done, as stated in the proposal for bids for the work, are approximate only. The Contractor agrees that The City is not to be held responsible that any of said quantities and amounts shall obtain in the construction of the work, as he has judged for himself as to such quantities and amounts and each of them, and as to the other circumstances affecting the cost of the performance of this contract; and that he will not at any time dispute or complain of such statement nor assert that there was any misunderstanding in regard to the character, size or depth of the excavations to be made or the kind or amount of the materials to be furnished or work to be done. The Contractor hereby agrees that he will not ask, demand, sue for, nor seek to recover for the entire work any extra compensation beyond the amount payable for the several

40 classes of work and kinds of materials in this contract enumerated, which shall be actually performed and furnished, at the prices therefor herein agreed upon and fixed.

Sewers, etc., to be built as shown on the plan.

VII. The sewer and appurtenances will be built on the lines, at the depths and at the grades and in the manner shown on

EXHIBIT (*continued*).

the plan of the work as the same will be designated on the ground by the Engineer.

Line may be changed.

10 The President may change the line of the sewer or the location of the basin, manholes, inlets, or other sewer appurtenances provided such changes do not materially affect either the character or the amount of the work to be done, or the conditions under which it is to be performed, and the Contractor hereby agrees to make no claim for damages or extra compensation on account thereof.

Preservation of points, stakes, etc.

20 The Contractor will safeguard all points, stakes, grade marks, monuments and bench marks made or established on or near the line of work, and he agrees to accept responsibility for and to remedy at his cost any mistakes that may be caused by the unauthorized disturbance or removal of such points, stakes, grade marks, monuments and bench marks.

Written order for extra work.

30 VIII. No claim for additional work or materials shall be made by or allowed to the Contractor, unless before the performance of such additional work the President shall have first authorized the same, in writing, and the same shall have been done or furnished under a written order from the President, given before the performance of such additional work or the furnishing of such additional materials. The aggregate price to be paid for additional work or materials so authorized or ordered shall not exceed five (5) per cent, of the contract price or the total cost of the work and materials.

Contract may be modified

40 This contract may be modified and changed from time to time as may previously be agreed to, in writing, between the parties hereto, in a manner not materially affecting the substances thereof or increasing the contract price thereunder, in order to carry out and complete more fully and perfectly the work herein agreed to be done and performed.

EXHIBIT (*continued*).

Limit to extras.

All claims for additional work or materials in any month shall be made to the Engineer; in writing, before the 15th day of the following month, and failing to make such claim within the time required, the rights of the Contractor to additional pay for such additional work or materials shall be deemed to
10 have been waived and forfeited.

Inspection.

Work or materials may be condemned at any time.

IX. The Engineer shall inspect the materials furnished and the work done and see that the same correspond with the specifications. The Engineer is hereby authorized and empowered to reject and refuse all labor and material or method of
20 application, or any part thereof, offered under or in fulfillment of this contract, that do not comply in kind, quality or quantity with the terms thereof. Any material delivered or offered to be delivered under this contract, which shall be rejected by the Engineer as not conforming to the terms thereof, will be forthwith removed by the Contractor, and material which does so conform will be forthwith furnished and delivered by him in place thereof. The Contractor hereby agrees not to use any material which has not been inspected and accepted, nor to perform any work except under inspection, to which end he further
30 agrees to notify the Engineer when lines, grades or inspection are required so that the Engineer may have time to provide for the same. No inspection, approval or acceptance of any part of the work herein contracted for or of the materials used therein, or any payment on account thereof, shall prevent the President from refusing to accept the work or materials at any time thereafter.

Engineer to be final arbiter.

X. To prevent all dispute and litigation, it is hereby agreed that the Chief Engineer in Charge of Sewers shall in all cases determine the amount and the quality of the several kinds of work and materials which are to be paid for under this contract, and he shall determine all questions in relation to the work and materials and the construction thereof, and he shall
40 in all cases decide every question which may arise relative to

EXHIBIT (*continued*).

the execution of this contract on the part of the Contractor, and his decision will be final and conclusive upon the Contractor; and such decision, in case any question shall arise, shall be a condition precedent to the right of the Contractor to receive any money under this contract.

10 Any doubt as to the meaning of this contract and the specifications thereof, or any obscurity as to the wording of them, or any discrepancy between them and the plan will be explained by the Engineer, and his explanation will be accepted by the Contractor, who hereby agrees to execute the work in accordance with such explanation, and to make no charge or claim for any extra work or damage on account thereof.

Work and materials must agree with specifications.

20 XI. The work will be performed in the best manner, and all materials of which the work is composed will be of the best kind, and a sufficient number of persons will be at all times employed to execute the work with due dispatch, the whole to be done to the satisfaction of the Engineer, and any materials furnished or work done not satisfactory to the Engineer will be immediately removed and satisfactorily replaced by the Contractor at his own expense; or if he shall neglect or refuse to remove and replace the same when notified so to do by a written notice to be served upon him, then the President may remove, 30 or cause the same to be removed and satisfactorily replaced, by contract or otherwise, as he may deem expedient, and charge the expense thereof to the Contractor; and the expense so charged shall be deducted and paid by The City out of such moneys as are or may become due under his contract.

Examination.

40 During the progress or after the completion of the work, should the Engineer require it, for the purpose of examining the same, the Contractor will make such openings, and to such extent through such part or parts of the work as the Engineer may direct, and the Contractor will satisfactorily restore the work so disturbed. Should the opening disclose defects in the work such defects shall be remedied in accordance with the provisions of the first paragraph of this section.

EXHIBIT (*continued*).

Use of patented articles.

10 XII. Wherever an article or any kind of material is specified by trade name or by the name of a patentee, manufacturer or dealer, or by reference to the catalogue of a manufacturer or dealer, it shall be taken as intending to mean and specify the article or kind of material designated, or any other equal thereto in quality, finish and durability, and equally serviceable for the purposes for which it is or they are intended. Nothing on the plan or in the specifications shall be interpreted or taken to violate the provisions of section 1554 of the Greater New York Charter, which provides that "except for repairs, no patented pavement shall be laid and no patented article shall be advertised for, contracted for or purchased, except under such circumstances that there can be a fair and reasonable opportunity for competition, the condition to secure which shall be prescribed by the Board of Estimate and Apportionment."

20

Claims for infringement.

The Contractor will be responsible for any claims made against The City for any infringement of patents, by the use of patented articles or processes in the construction and completion of the work, and he will save harmless and indemnify The City all costs, expenses and damages caused by reason of any infringement of patents used in the construction and completion of the work.

30

Commencement and completion.

XIII. The Contractor will begin the work herein agreed to be performed on such date as the President shall notify him to begin on and from which date the time hereinafter fixed for the completion of the work shall begin to run. The place where the work is to be begun will be either stated in said notice or designated on the ground by the Engineer. The commencement of work by the Contractor without notice shall be deemed and taken to be a waiver on his part of notice to begin work, in which case the time for the completion of the work will begin to run on and from the date the work was commenced.

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EXHIBIT (*continued*).

Time of performance.

10 XIV. The Contractor will carry on the work with such force and in such manner and order and at such places, times and seasons, including freezing weather, as may be directed by the Engineer, and will execute all the work in every respect in a thorough and workmanlike manner: and he will fully and entirely perform this contract on his part before the expiration of One Hundred and Seventy Five (175) CONSECUTIVE WORKING DAYS.

Time important.

20 It is hereby agreed that the time designated for the performance of all the work under this Contract is of the essence of this agreement, in view whereof it is hereby further agreed that a rate of progress will be maintained so that the work performed up to any time will be at least the same percentage of the total work to be performed under this contract as the net elapsed time at such time is of the total time allowed for the performance of all the work under this contract.

30 In the computation of the number of consecutive working days, the time during which the completion of the work has been delayed in consequence of the condition of the weather, or tides, or by any act or omission of the party of the first part or during such period as the work has been suspended by written order of the President, or delays for which the Contractor is not responsible (all of which will be determined by the President, who shall certify to the same in writing, and whose determination and certificate thereof shall be binding and conclusive upon the Contractor), will be allowed to the Contractor and will be deducted in computation. Sundays and also holidays on which no work is done, will also be excluded from said computation. In case a larger amount of rock excavation than is set forth in the Engineer's Estimate shall be necessary, an allowance of one day will be made for each 25 cubic yards of such excess of rock excavated and removed in accordance with the measurement of rock allowed by the specifications. If the completion of the work to be done under this contract shall require work or materials or both in greater amounts than those set forth in the Engineer's Estimate of Quantities, or if unforeseen obstacles are encountered in the prosecution of said work, then the time which the Con-

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EXHIBIT (*continued*).

tractor is delayed on account thereof will be determined and allowed by the President at the completion of the work, upon the receipt by him of a written application from the Contractor for such determination and allowance. No demand by the Contractor that the President determine and certify the matters aforesaid shall be of any effect whatsoever unless the same be made in writing and duly served upon the President prior to the filing
10 in the office of the Comptroller of The City of the final certificate of the completion and acceptance of the work.

End of time period.

The time shall run against this contract until all work called for in this contract is completed to the satisfaction of the Engineer.

20 Liquidated damages.

XV. In case the Contractor shall fail to complete the work hereunder in accordance with the contract within the time aforesaid, he agrees to pay to The City the sum of Thirty 00/100 Dollars (\$30.00) for each and every day the time consumed in said performance and completion exceeds the time hereinbefore allowed for that purpose; which said sum, in view of the difficulty of ascertaining the loss which The City will suffer by reason of delay in the performance of the work hereunder, is hereby agreed
30 upon, fixed and determined by the parties hereto as the liquidated damages that The City will suffer by reason of said delay and default, and not as a penalty; and The City shall and may deduct and retain the amount of such liquidated damages out of the moneys which may be due or become due under this contract.

Work not provided for in contract.

XVI. If, before the completion of the work contemplated herein, it shall become necessary to do any other or further work
40 on or near the line thereof than is provided for in this contract, the Contractor will not in any way interfere with or molest such person or persons as the President may employ to do such work, and will carry on the work under this contract in such manner as may be ordered so as to afford all reasonable facilities for doing such other or further work; and no damage or claim by the Con-

EXHIBIT (*continued*).

tractor shall be allowed therefor, except such allowance of time for delay as the President may deem reasonable.

President's right to suspend work.

10 XVII. The President is hereby authorized to suspend the whole or any part of the work herein contracted to be done, if he shall deem it for the interest of The City so to do. During such suspension the trenches shall be backfilled, if required, and the roadways and pavements over the same satisfactorily restored, and all materials upon the work shall be neatly piled so as not to obstruct public travel, or shall be removed from the line of the work, if directed.

No damages to be claimed for delay due to other contracts.

20 XVIII. Should postponement or delay be occasioned by the precedence of paving or other contracts, which may have been either let or executed before the opening of the bids for this contract, the Contractor will make no claim for damages therefor nor for any damages in consequence of the street or the adjoining sewers not being in the condition contemplated by the parties at the time of making the contract; if, however, the Contractor shall be delayed in performance of his work by reason of the street or the adjoining sewers not being in such condition, or by reason of the work or any part thereof being suspended as hereinbefore provided, such allowance of time on account thereof as the President shall deem reasonable will be made.

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If the work be suspended or delayed by any act or omission of The City, or for the reason that The City does not own or has not obtained possession of, or the right to enter upon the land upon which the work is to be performed, or because of any act or omission of any employee or agent of The City or any other Contractor performing the work for The City, the President, or whoever is directed by this contract, to make the certificate in reference to time, shall make such allowance of time for the completion of the work as the Engineer shall certify that the work has been delayed. No allowance whatever as damages will be made to the Contractor because of any such suspension or delays, and no claim shall be made by the Contractor on account thereof.

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EXHIBIT (*continued*).

Allowance of time for delays.

10 XIX. No allowances of time for delays under the provisions of this contract nor the delivery and acceptance of any articles or materials called for by this contract, shall be deemed to be a waiver by the President of the right to abrogate this contract for abandonment or delay in the manner hereinafter provided.

Right to construct sewers, etc.

Permits for connections.

20 XX. Prior to the commencement of and during the progress of the work under this contract the President shall have the right to undertake, and to grant permits for, any construction, reconstruction, and repairing of any pipes, sewers, basins, sub-way ducts and railway tracks, and any appurtenances thereof located on and adjoining the line of the work, and for any connections with and additions to such pipes, etc., and for such purposes the President is hereby authorized to suspend work on any part of this contract, in accordance with Section XVII, and the Contractor will not interfere with nor place any obstructions in the way of any person or persons who may be engaged upon such work. The President is hereby authorized to connect, by contract or otherwise, any sewers and drains with the work built under this contract and to grant permits to any person or persons to make connections therewith at any time before it is completed; and the Contractor will not interfere with nor place obstruction in the way of such persons as may be employed in building such sewers and drains, or in making such connections, and the flow from such sewers, drains and connections will be permitted by the Contractor to discharge into the work built under his contract and the Contractor agrees to make no claim for compensation, damages or delay on account thereof. The issuance of such permits shall not be considered as an acceptance by The City of
30 that part of the sewer into which such connections empty or flow,
40 nor shall the Contractor on account thereof be relieved from the cleaning of the sewer prior to the final examination of the work. No new connections or drains will be allowed to be made or joined to the work built under this contract unless a permit therefor has been duly issued by the President, which permit shall be shown in all cases to the Inspector of the work.

EXHIBIT (*continued*).

Flow of sewers and drains, etc.

Drains, etc., interrupted.

Sewers, etc., to be kept clean.

- 10 XXI. The Contractor will provide at his own cost for the flow of the sewers, drains and water courses interrupted during the progress of the work, and will immediately cart away and remove all offensive matter. The flow throughout the entire length of such sewers and appurtenances as are to be replaced by the work to be done under this contract will be maintained by the Contractor. The Contractor will remove at his own cost and expense all such bulkheads, as may be directed, from the sewers with which the work under this contract will be connected. When the permanent removal of any existing pipe sewers and appurtenances and pipe drains is necessitated by the work to be done under 20 this contract, such of the materials of such structures as may be directed shall be carefully taken up, piled and left at the disposal of The City, and shall not be used in the work, and the remainder shall be removed from the work and disposed of by the Contractor. Wherever the work to be built under this contract, or the trenches in which it is to be constructed, follow the line, and occupy the place of or intercept the Fire Alarm Telegraph System of The City, or any existing sewers, drains, culverts, basin connections or house connections for which permits may have been 30 granted prior to the opening of the bids for this contract, the Contractor will make the same good, and will rebuild the Fire Alarm Telegraph System of The City and also said sewers, drains, culverts and connections, or connect the same with the sewer built under this contract, whichever he may be directed to do, at his own cost and expense. All sewers, drains, culverts, basins and basin connections rendered unnecessary by the construction of the work herein contemplated, shall be thoroughly broken up, except as otherwise hereinbefore provided, and satisfactorily filled in by the Contractor at his own cost and expense, as shall also all 40 portions of water courses in, through or across any street that may be rendered unnecessary by the construction of this work. During the progress of the work, and until the completion and acceptance thereof, the sewers, drains, basins, culverts and connections built under this contract shall be kept thoroughly cleaned throughout, and shall be left clean.

EXHIBIT (*continued*).

Sale of sand or earth.

10 XXII. The Contractor will not sell, nor permit to be removed from the line of the work, before the trench shall have been backfilled, any building sand or earth thrown up, except upon written permission, and then only so much as shall remain after reserving a sufficient quantity to backfill the trench and complete the paving; and the Contractor will, in all cases, backfill the trench with the same material thrown out, provided it be suitable under the provisions of the specifications hereof; but if it be unsuitable, then the same shall be removed from the line of the work, and suitable material procured and used for backfilling the trench, and when required sand of proper quality and depth shall be spread on the surface to receive the pavement.

20 The Contractor hereby agrees that all excavated material and materials of construction placed by him or for him upon private property, unless by written permission of the owners or lessees thereof, will be removed by him and all damage to said property remedied by him at his own cost and expense. Unless such materials are removed and such damage remedied by the Contractor within 48 hours after the receipt by him of a written notice so to do, he agrees that the President shall be and is hereby authorized to dispose of such materials, and to remedy such damage and to deduct the expense thereof from the moneys due or to become due under this contract.

30 Contractor to give personal attention to work.

Not to assign or sublet.

40 XXIII. The Contractor will give his personal attention constantly to the faithful prosecution of the work; he will not assign, transfer, convey, sublet or otherwise dispose of this contract, or his right, title or interest in or to the same, or any part thereof, without the previous consent, in writing, of the President, indorsed hereon or hereto attached; and he will not assign, by power of attorney or otherwise, any of the moneys to become due and payable under this contract, unless by and with the like consent, signified in like manner. If the Contractor shall, without such previous written consent, assign, transfer, convey, sublet or otherwise dispose of this contract, or of his right title or interest therein, or any of the moneys due or to become due under this contract, to any other person, company or other corporation,

EXHIBIT (*continued*).

10 this contract may, at the option of the President, be revoked and annulled, and The City shall thereupon be relieved and discharged from any and all liability and obligations growing out of the same to the Contractor, and to his assignee or transferee; provided that nothing herein contained shall be construed to hinder, prevent or affect an assignment by the Contractor for the benefit of his creditors, made pursuant to the statutes of the State of New York; and no right under this contract, or to any money to become due hereunder, shall be asserted against The City, in law or in equity, by reason of any so-called assignment of this contract, or any part thereof, or of any moneys due or to become due hereunder, unless authorized as aforesaid by the written consent of the President.

When Contractor is absent.

20 Disorderly workmen.

Contractor to provide assistance.

30 XXIV. Whenever the Contractor is not present on any part of the work where it may be necessary to give directions, orders will be given by the Engineer to and shall be received and obeyed by the superintendents and foremen who may have immediate charge of the men employed on the particular work in relation to which the order may be given; and at any time, if a foreman or workman employed by the Contractor shall be declared by the Engineer to be disobedient, incompetent or disrespectful, the Contractor, on receiving written notice to that effect, will forthwith dismiss such person, and will not again employ him on any part of the work. The Contractor will provide all necessary assistance for the Engineer when required, without charge or expense to The City or Engineer.

Contractor to plank and bridge for traffic.

40 XXV. The Contractor will observe the law and all ordinances of The City in relation to obstructing the streets, keeping open passageways and protecting the same where they are exposed and would be dangerous to the public travel, and such passageways shall, as may be required, be planked or bridged by the Contractor, at his own expense.

EXHIBIT (*continued*).

Guards and lights.

Indemnification of City.

10 XXVI. During the performance of the work herein set forth the Contractor will place proper guards upon and around the same for the prevention of accidents, and at night will put up and keep suitable and sufficient lights, and he will indemnify and save harmless The City against and from all claims, suits and actions, of every name and description, brought against it, and all costs and damages to which it may be put on account or by reason of any injury or alleged injury to the person or property of another, resulting from the prosecution of the work or from negligence or carelessness in the performance of the work, or in guarding the same; or from any improper materials used in its prosecution, or by or on account of any act or omission of the Contractor or his agents; and the Contractor agrees that the whole or so much of the moneys due to the Contractor under and by virtue of this contract, as shall or may be considered necessary by the Comptroller of The City, may, at its option, be retained by The City until all such suits and claims for damages as aforesaid shall have been settled, and evidence to that effect furnished to the satisfaction of the Comptroller.

Contractor to make repairs.

30 XXVII. In case any injury is done to property along the line of the work, or to any sidewalk, in consequence of any act or omission on the part of the Contractor or his employees or agents in carrying out any of the provisions or requirements of this contract, the Contractor will make such repairs as are necessary in consequence thereof, at his own expense and to the satisfaction of the President, and in case of failure on the part of the Contractor to promptly make such repairs, they may be made by the President, and the expense thereof will be deducted out of the moneys due or to become due under this contract.

40 Loss or damage to be assumed by Contractor.

XXVIII. The Contractor agrees to assume, and to make no claim on account of, any and all loss or damages arising out of the nature of the work to be done under this contract, or from any unforeseen obstructions or difficulties which may be encountered in the prosecution of the same or from the action of the

EXHIBIT (*continued*).

elements, or from incumbrances on or near the line of the work, or from the breaking of water mains, sewer and gas mains on or near the line of the work.

Claims for labor, etc.

10 XXIX. The Contractor will pay promptly, and in cash,
for all labor employed upon and all materials furnished and
used in the work, and if at any time before or within thirty days
after the whole work herein agreed to be performed has been com-
pleted and accepted by The City, any person or persons claiming
to have performed any labor or furnished any materials toward
the performance and completion of the contract, shall file with
the President and with the Comptroller of The City any such
notice as is described in the Lien Law or any act of the Legis-
20 lature of the State of New York, then, and in every such case, The
City shall retain — anything herein contained to the contrary
thereof notwithstanding — from the moneys under its control,
and due or to become due under this contract, so much of the
moneys as shall be sufficient to pay off, satisfy and discharge
the amount in such notice alleged or claimed to be due to the
person or persons filing such notice, together with the reasonable
cost of any action or actions brought or that may be brought to en-
force such claim or the lien created by the filing of such notice.
The money so retained shall be retained by The City until the lien
thereon created by the said act and the filing of the said notice
30 shall be discharged, pursuant to the provisions of the said act.

Contractor will prevent filing of liens, etc.

 XXX. The Contractor will not, at any time suffer or
permit any lien, attachment, or other incumbrances, under the
law of this State or otherwise, by any person or persons whomso-
ever, to retain on file in the Finance Department or at the office
of the City Department having supervision of the work against
any money due or to become due for any work done or materials
40 furnished under this contract, or by reason of any other claim or
demand against the Contractor; and any such lien, attachment,
or other incumbrance, until it is removed, shall preclude any and
all claim or demand for any payment whatsoever under or by
virtue of this contract.

EXHIBIT (*continued*).

Evidence of satisfaction of liens, etc.

10 The Contractor further agrees that he will present to the party of the first part satisfactory evidence that all just liens, claims and demands of his employees, or of parties from whom furnished and work done under this contract are fully released from all such liens, claims and demands before said party of the second part will demand or shall receive the sums due on final payment under this contract.

Notice to gas companies, etc.

Not to hinder other companies.

20 XXXI. At least 24 hours before breaking ground for the work under this contract the Contractor will give notice, in writing, to all gas, railroad, and other companies owning or controlling any pipe, tracks or other structures which during the progress of the work any be affected by the prosecution of the same so that said companies may protect or remove their structures, and he will not cause any hindrance to, or interference with, any such gas company or other company or companies in protecting their said pipes, tracks or other structures, nor in removing or otherwise protecting and replacing the main and service pipes, lampposts, lamps, tracks or other structures where necessary, but the Contractor will suffer the said company or
30 companies to take all such measures as are requisite for the purpose aforesaid. But if said gas, railroad, or other companies, within five days after receipt of such notice, fail to support, remove or otherwise protect their structures, the Contractor will upon the approval of the President protect or remove the same, it being expressly understood that the cost thereof shall not be a charge against The City, but shall be a matter for adjustment between the Contractor and the company or companies concerned.

Pipes, conduits, etc., of private companies.

40 XXXII. It is hereby agreed that The City is not responsible or liable for the support, protection or reconstruction of such gas pipes, conduits, water pipes, tracks or structures owned by private companies enjoying special franchises or occupying any portion of the street or way on or below the surface in its streets or ways, as the Contractor admits that he has carefully examined the location of work, has made special inquiry at the

EXHIBIT (*continued*).

10 offices of the companies owning, controlling or operating said pipes, conduits, tracks and structures, and he has determined to his satisfaction the character, size, location and length of such pipes, conduits, tracks and structures; that he has inspected the public records of the various City Departments having cognizance and control of pipes, conduits, and other subsurface structures, and of The City's water pipes, conduits and sewers, and he has made such further personal inspection and investigation as he deemed proper to determine the correctness of the information so obtained; and he clearly understands that The City does not insure the accuracy of such reports or information, and agrees that he will not make any claim against The City for damages or extra work caused or occasioned by his relying upon such records, reports or information furnished by any City Department or any companies, either as a whole or in part.

20 Protection and restoration of pipes, etc., in private companies.

30 XXXIII. The Contractor agrees to confer with and to make to or entertain an offer from such private companies as own the said pipes, conduits, tracks or structures, and the Contractor further agrees to enter into an agreement with said companies by what terms and at what prices the support, protection, removal and reconstruction of the pipes, conduits, tracks and structures will be undertaken and accomplished, and in the event of the failure to make such an agreement with said companies, he will not complain nor make any demand on The City for additional compensation or pay for supporting, protecting, removing or restoring the said pipes, conduits, tracks or other structures.

40 XXXIII-a. If the paving between and for a distance of two (2) feet in width outside the tracks of any street railroad company is disturbed by the work of this contract, the Contractor shall restore, at his expense, the said pavement, and replace same in good condition to the satisfaction of the Engineer in charge, notwithstanding anything hereinbefore, or hereinafter mentioned in these specifications.

Contractor to notify Department of Water Supply,

Gas and Electricity.

XXXIV. At least twenty-four hours before breaking ground, for the purpose of constructing the work of this contract,

EXHIBIT (*continued*).

the Contractor agrees to give notice thereof in writing to the Department of Water Supply, Gas and Electricity.

City's water pipes, etc.

10 XXXV. If upon excavating it shall be found that any existing water pipes or appurtenances owned or controlled or operated by The City follow the lines, or occupy the place, of the sewer or sewers and appurtenances to be laid or built as shown on the plan, such existing water pipes and appurtenances will be removed and relaid, or rebuilt, by and at the cost of the Department of Water Supply, Gas and Electricity of The City of New York; if, however, in order to facilitate the work to be done under this contract, it be found desirable to temporarily remove any water pipes or appurtenances, owned or controlled or operated by The City, to removal and replacing in their original positions
20 of such water pipes and appurtenances will be done by the Department of Water Supply, Gas and Electricity for the Contractor at his cost and expense.

Protection of City's water pipes, etc.

30 XXXVI. The Contractor agrees to protect all water mains and service water pipes owned, controlled or operated by The City which may be affected in any manner by the work done under this contract, except as hereinbefore provided, and to protect all such water and service pipes from freezing, and if he fails to do so, the Commissioner of Water Supply, Gas and Electricity is hereby authorized to protect such main and service pipes, or in the event of their having suffered injury to replace such pipes, and recalk and repair the same immediately, as the work progresses, and the cost thereof shall be charged to the Contractor; the cost so charged shall be deducted from any sum or sums due or to become due under this contract, and in case such sum or sums shall be insufficient to cover such cost, the Contractor will be liable for the balance.

40 Protection of gas and water mains and pipes, etc.

XXXVII. The Contractor agrees to sustain in their places and protect all water or gas mains, conduit, subways or service pipes, steam pipes and pneumatic pipes, that may be adjacent to his work but entirely outside of the lines of the excavations as required by the specifications and all sidewalks,

EXHIBIT (*continued*).

10 curbs, stoops, areas, and all other property in the vicinity of his work, from direct or indirect injury by caving or otherwise, and he hereby assumes all expenses for direct or indirect damage which may be occasioned by injury to any of them, and he agrees to have at all times a sufficient quantity of timber and other necessary materials and appliances on the ground, and will use the same, as required, for bracing and sheeting the sides and ends of excavations, and for sustaining and supporting any and all pipes, conduits, subways, lamp-posts and lamps or other structures that are undermined, weakened, endangered or threatened; and in case any damage or injury shall or may result to said pipes, conduits, subways, lamp-posts and lamps and other works or structures of any gas, electric, railroad or other company whatsoever, or to any private property, through or by reason of any negligence, wilfulness, carelessness or want of skill on the part of the Contractor, his agents or servants, the Contractor hereby agrees to pay such amount as may be sufficient to cover the expense and damages occasioned by such negligence, wilfulness, carelessness or unskillfulness, and that such amount shall be charged against him: and the President is hereby authorized to deduct and retain from any moneys which may be due, or which shall become due, under this contract, a sum sufficient, in his judgment, to cover the cost of making good any such damages, expense or loss, and to apply said sum so deducted and retained to the requisite repairs or renewals, or to reimburse the parties damaged or injured.

20
30 Old water and gas pipes.

XXXVIII. All iron, water and gas pipes which it becomes necessary to remove shall be considered the property of The City and will be piled by the contractor in such part or parts of the streets as may be directed, unless notice to the contrary is given him in writing, in which case he will remove the same at his own expense.

Change of grade.

40 XXXIX. In case the grade of the street shall be changed during the progress of the work, the Contractor will conform to the altered grade at the contract prices, as far as they are applicable; and for any work for which there is no contract price, the provisions in relation to work not provided for in this contract shall apply.

EXHIBIT (*continued*).

Measurement of work and material.

10 XL. All quantities of work and materials to be paid for will be measured and determined, according to the plan and the working lines that may be given, and the specifications, when the work conforms thereto. No allowance will be made on any part of the work for any excess above the quantities required by such plan, lines and specifications. Should the dimensions of any part of the work, or of the materials be less than those required by the plan, the actual quantities only will be allowed in measurement.

Payment on acceptance of work.

20 XLI. The Contractor will not be entitled to demand or receive payment for any portion of the work or materials unless the same has been fully completed in the manner set forth in this contract, and such completion duly certified by the Engineer in Charge of Sewers, and until each and every one of the stipulations hereinbefore mentioned is complied with, and the work completed to the satisfaction of the President and accepted by him, and the final certificate of completion and acceptance thereof, signed by the President and said Engineer, filed with the Comptroller. The City will pay to the Contractor on or before the expiration of thirty days from the filing of said final certificate of completion and acceptance in the office of the Comptroller, the whole of the moneys accruing to the Contractor, under this contract, except 30 such sums of money as shall be retained under any of the provisions herein contained for that purpose, or in any law of the State, under any ordinance of The City passed prior to the date of this contract and now in force.

Moneys to be retained for repairs to unpaved streets.

40 It is hereby further agreed that The City shall be and is hereby authorized to retain out of the moneys payable to the Contractor, during a period of six months from the date of the final completion and the acceptance by the President of the work done under this contract, the sum of \$0.06/100 for each linear foot of sewer, basin connection, constructed under this contract within streets repaired by the Contractor. And should unpaved streets, and the sum of \$0.75 for each linear foot the Contractor fail to make such repairs to the street surface as may become necessary by reason of the work done under this

EXHIBIT (*continued*).

contract within two days of the date of service of notice upon him so to do, then the President may expend such sum or any part thereof in making such repairs.

Payment of retained moneys to be made after six months.

10 It is hereby further agreed that The City, upon the expiration of the said period of six months, will pay to the said party of the second part the whole or such part of the moneys retained as may remain after the expenses of making said repairs, in the manner aforesaid, shall have been paid therefrom.

Termination of six months' period.

20 It is hereby further agreed that if the termination of the said period of six months after the completion and acceptance of the work done under this contract shall fall within the months of December, January, February or March, then and in that case the said months of December, January, February and March, or such part thereof as the President may determine, will not be included in the computation of said period of six months.

Final certificate to control.

30 XLII. The action of the Engineer in Charge of Sewers, by which the Contractor is to be bound and concluded according to the terms of this contract, shall be that evidenced by said Engineer's final certificate, all prior certificates upon which eighty-five per centum (85%) payments may have been made being merely estimates, and subject to the corrections of such final certificate, which may be made without notice to the Contractor thereof, or of the measurements upon which the same is based.

85 per cent payments.

40 XLIII. In case the amount of this contract, based on the Engineer's estimate and the contract prices, shall be five thousand dollars (\$5,000.00) or over the Engineer shall from time to time, as the work progresses, but not oftener than once a month, make in writing an estimate, such as in his opinion, shall be just and fair, of the amount of the work done and material installed by the Contractor in the performance of this contract on his part, and of the value thereof under and according to the terms of this contract. No allowance will be made in these estimates for ma-

EXHIBIT (*continued*).

10 materials furnished and delivered until such materials shall have been permanently incorporated in the work, except as hereinafter stated. The first such estimate will be of the amount of work done and materials furnished and installed since the Contractor commenced the performance of this contract on his part, and every subsequent estimate except the final one, will be of the amount of work done and materials furnished and installed since
20 the last preceding estimate was made. In the estimates allowances will be made for Reinforcing Steel, Structural Steel, Pumps, Electric Motors, Valves, Cast Iron Pipe, Salt Glazed Tile Pipe 12 inches in diameter and larger sizes, Precast Concrete Pipe 24 inches in diameter and larger sizes, Stationary Screens, Mechanically Driven Screens, Cast Iron Tunnel Lining and Precast concrete Blocks for Tunnel Lining, prior to their installation, which are owned by the Contractor and free from all liens or claims, and which have been delivered at locations where work is to be performed under this contract. Such allowances will be
30 calculated at Eighty (80) per cent of the cost price for said materials. But no allowances will be made for those materials delivered which are in excess of the quantities permitted under the specifications to be distributed along the lines of the work. The Contractor will be required to furnish, prior to the certification for payment, written evidence satisfactory to the Borough President that the Contractor is the owner of the materials upon which payment is to be certified, and that such materials are free from liens or claims. Before certifying for payment for
40 materials aforesaid, the Contractor shall execute or have executed and delivered to The City any and all instruments required to vest in The City title to such materials free from claims or liens. Title to materials certified for payment shall vest in The City upon certification of the same for payment. The Contractor, however, agrees to and does assume responsibility for the safety, care and protection of all such materials until they have been finally installed in the work and the completed work accepted by the City, and further agrees at his own cost to replace any such materials that may be lost or damaged. The aforesaid
estimates of amount and quantity will not be required to be made by strict measurement, but they may be made by measurement or by estimation, or partly by one and partly by the other, and it shall be sufficient if they are approximate only and estimates strictly so called. Upon each such estimate, made prior to the time of the completion of all the work of laying all the sewers and appurtenances and the backfilling of trenches, said estimate being certified in writing by the Borough President and

EXHIBIT (*continued*).

10 Engineer and filed with the Comptroller, The City will pay to
the Contractor eighty-five per centum of the amount stated in
such estimate to be the value of the work therein certified to have
been done and materials certified therein to have been furnished
and installed, and eighty-five per cent of eighty per cent of the
cost not exceeding the contract value of materials not installed
hereinabove specified except that subsequent to the completion
of all the work of laying all the sewers and appurtenances and
the backfilling of the trenches, The City will pay to the Con-
tractor eighty-five per centum of the value of the work done and
materials furnished under the contract as certified in each such
estimate, shall amount to more than fifteen hundred dollars
(\$1500.) and provided, that The City pay at all times reserve
and retain out of said installments, or any of them, such sum
sums as by the terms hereof, or of any act of the Legislature of
the State of New York, or of any ordinance of The City passed
20 prior to the date hereof, it is or may be authorized to reserve or
retain; and provided that where the Contractor, although the
lowest bidder in the gross calculation, is to receive unusual or
extraordinary prices for any of the different items of the work
when considered separately, nothing herein contained shall be
construed to affect the right of the President to determine the
amount that may be due from time to time, not necessarily by
the prices agreed upon in this contract, but by causing an esti-
mate to be made of the value of the work done, taking as a
basis of the calculations the whole amount of money that will
30 have become due, according to the terms of this contract, when
the whole work shall be completed.

If abandoned, etc.

Contract may be declared abandoned.

Completion of work to be undertaken by President.

40 XLIV. The Contractor hereby agrees that if the work to
be done under this contract shall be abandoned by him, or if this
contract shall be assigned or the work sublet by him otherwise
than as provided by the terms hereof, or if at any time the
Engineer shall be of the opinion, and shall so certify, in writing
to the President that the performance of the contract is un-
necessarily or unreasonably delayed, as evidenced by its actual
rate of progress compared with the required progress (see Sec-
tion XIV); or that the Contractor is wilfully violating any of

EXHIBIT (*continued*).

the conditions or covenants of this contract or the specifications thereof, or is executing the same in bad faith, or not in accordance with the terms thereof, or that the work is not fully completed within the time designated in this contract for its completion, the President may declare this contract or any part thereof abandoned and notify the Contractor to discontinue all work or any part thereof under this contract, by written notice to be
10 served upon the Contractor either personally, or by leaving said notice at his residence, or with his agent in charge of the work, or in the manner provided in Section XLV, or with any employee found on the work, and the Contractor agrees to thereupon discontinue said work or such part thereof, and he further agrees that the President shall thereupon have the power to contract for the completion of the contract in the manner prescribed by law, or to place such and so many persons as he may deem advisable, by contract or otherwise, to work at and complete the work declared abandoned and to use such plant and materials as he may
20 find upon the line of the work, and to procure other plants and materials for the completion of the same, and to charge the expense of said plant, labor and materials to the Contractor; and it is further agreed that the expense so charged shall be deducted and also liquidated damages for delay in the completion of the work, as provided in Clause XV shall be deducted and paid by the City out of such moneys as would have been payable to the Contractor if he had completed the work. And in case such expense and liquidated damages shall exceed the sum which
30 would have been payable under this contract, if the same had been completed by the Contractor, he shall and will pay the amount of such excess to the City; and in case such expense and liquidated damages shall be less than the sum which would be payable to the Contractor, if the Contractor had completed the contract, he shall be entitled to the difference, subject to all the other terms, covenants and conditions of this contract. Upon the President signing the aforesaid written notice to the Contractor to discontinue all or any part of the work, he shall have the right to take immediate possession on behalf of The City of the plant
40 and materials upon the line of the work, without notice to the Contractor, for the purpose hereinbefore specified, and no such plan or materials shall be removed so long as the same may be wanted for the work. In the computation of liquidated damages for delay in completion of the work, the time taken by The City or given to the new Contractor to whom the contract for the completion of this contract may be awarded, as well as the time

EXHIBIT (*continued*).

10 taken in advertising and awarding such contract, shall be added to the time consumed by the Contractor under this contract up to the date when The City shall take the action provided in this clause, and from such total there shall be deducted the time allowed to the Contractor for completing the work under this contract. When any particular part of the work is being carried on by The City by contract or otherwise under the provisions of this clause of the contract, the Contractor agrees to continue the remainder of the work in conformity with the terms of this contract and in such manner as in no wise to hinder or interfere with the persons or workmen employed, as above provided by The City by contract or otherwise to do any part of the work, or to complete the same under the provisions of this clause of the contract. In the event of the President undertaking to have performed the work or any part thereof under this clause of the contract, his certificate as to the amount of work done, cost, and of the excess cost, if any, of completing the work called for by this
20 contract shall be binding and conclusive upon the Contractor, his assignees and his sureties.

Notice to Contractor.

30 XLV. It is agreed that the residence or place of business, given in the bid upon which this contract is founded, is hereby designated as the place where all notices, letters and other communications shall be served, mailed or delivered. It is further agreed that any notice, letter or other communication addressed to the Contractor and delivered at the above-named place, or deposited in a post-paid wrapper in any post-office box regularly maintained by the post-office, shall be deemed sufficient service thereof upon the Contractor. It is also further agreed that the place named may be changed at any time by an instrument in writing, executed and acknowledged by the Contractor and delivered to the President. It is also further agreed that nothing herein contained shall be deemed to proclude or render inoperative the service of any notice, letter or other communication
40 upon the Contractor personally.

Labor Law.

XLVI. The Contractor agrees that he will comply with the provisions of "The Labor Law." He further agrees that no laborer, workman or mechanic in the employ of the Contractor, sub-contractor or other person doing or contracting to do the

EXHIBIT (*continued*).

whole or a part of the work contemplated by the contract, shall be permitted or required to work more than eight hours in any one calendar day, except in cases of extraordinary emergency, caused by fire, flood or danger to life or property; that the wages to be paid for a legal day's work or upon any material to be used thereon shall not be less than the prevailing rate for a day's work in the same trade or occupation in the locality where such public
10 work is being constructed. Each such laborer, workman or mechanic shall receive the prevailing rate of wages. This contract shall be void and of no effect, unless the person or corporation, making or performing the same shall comply with the provision of section 222 of the Labor Law.

No-estoppel.

XLVII. The City shall not, nor shall any Department or officer thereof be procluded or estopped by any return or certificate made or given by the President, any Engineer or other officer, agent or appointee of The City under any provision of this
20 contract from at any time (either before or after the final completion and acceptance of the work and payment therefor pursuant to any such return or certificate) showing the true and correct amount, quality and character of the work done and materials furnished by the Contractor, or any other person under this contract, or from showing at any time that any such return or certificate is untrue and incorrect or improperly made in any
30 particular, or that the work and materials, or any part thereof do not in fact conform to the contract: and The City shall not be precluded or estopped, notwithstanding any such return or certificate or payment in accordance therewith, from demanding and recovering from the Contractor such damages as it may sustain by reason of his failure to comply with the contract.

Understanding of plans and specifications.

XLVIII. The Contractor hereby distinctly and expressly
40 declares and acknowledges that, before the signing of this contract, he has carefully read the same, and the whole thereof, together with and in connection with the plan and specifications, and that he has made such examination of this contract and of said plan and specifications, and the location where said work is to be done, and such investigation of the work required to be done, and in regard to the material required to be furnished, as to enable him to thoroughly understand the intention of the same,

EXHIBIT (*continued*).

and the requirements, covenants, agreements, stipulations and restrictions contained in this contract and in said plan and specifications; and distinctly agrees that he will not hereafter make any claim or demand upon The City, based upon or arising out of any alleged misunderstanding or misconception on his part of the said requirements, covenants, stipulations and restrictions; and that any information given to the Contractor by the Engineer or others as to the quantities in the work, prior to, or during the progress of the work, shall have no bearing or effect whatsoever, upon the total amount of work to be paid for, in the final settlement.

Substitution of Sureties.

XLIX. Should the Comptroller at any time deem the sureties under the contract to be unsatisfactory he shall notify the Contractor to that effect and the Contractor shall when so notified forthwith submit in substitution new sureties acceptable to the Comptroller. No further payment shall be deemed due or shall be made until the new sureties shall qualify and be accepted by the Comptroller.

Chap. 478, Laws 1916.

L. This contract shall be void and of no effect unless the person or corporation making or performing the same shall secure compensation for the benefit of and keep insured during the life of this contract the employees engaged thereon, in compliance with the provisions of Chapter 41 of the Laws of 1914, known as the Workmen's Compensation Law, and acts amendatory thereof.

IN WITNESS WHEREOF, The President of the Borough of Queens for and on behalf of The City of New York, and Contractor have executed this agreement in triplicate; one part of which is to remain with the President, one other to be filed with the Comptroller of The City of New York, and the third to be delivered to the Contractor.

THE CITY OF NEW YORK,

By MAURICE E. CONNOLLY,
President of the Borough of Queens.
MUCCINI and DECKER,

Contractor.

By ERNEST MUCCINI.

EXHIBIT (continued).

The City and State of New York, ss. :
County of Queens,

10 On this 22nd day of Sept., 1924, before me personally came Maurice E. Connolly, to me known and known to me to be the President of the Borough of Queens, of The City of New York, the person described as such in and who as such executed the foregoing instrument, and he acknowledged to me that he executed the same as said President for the purposes therein mentioned.

JEFFERSON J. REILLY

Commissioner of Deeds, New York City.

20

Certificate of acknowledgment of Contractor, if a partnership.

The City and State of New York, ss. :
County of Queens

30 On this 17th day of Sept., 1924, before me personally came Ernest Muccini, to me known and known to me to be a member of Muccini and Decker, the firm described in and which executed the foregoing contract, and he acknowledged to me that he subscribed the name of said firm thereto on behalf of said firm for the purposes therein mentioned.

JEFFERSON J. REILLY

Commissioner of Deeds, New York City.

40

KNOW ALL MEN BY THESE PRESENTS, That we
MUCCINI and DECKER, hereinafter called the "Contractor",
and MARYLAND CASUALTY CO., ROYAL INDEMNITY CO.
and UNITED STATES FIDELITY AND GUARANTY COM-
PANY, hereinafter called the "Sureties", are held and firmly
bound unto The City of New York in the sum of One hundred
fifty thousand DOLLARS, lawful money of the United States of

EXHIBIT (*continued*).

America, to be paid unto THE CITY OF NEW YORK, or to its certain attorneys, successors or assigns; for which payment, well and truly to be made, we and each of us do bind ourselves, and our several and respective heirs, executors, administrators and assigns, jointly and severally, firmly by these presents.

Signed, sealed and dated this 17th day of Sept., 1924.

10

WHEREAS, The above bounden Contractor, by an instrument in writing, signed by said contractor, and bearing even date with these presents, one part whereof is hereto annexed, has contracted with The City of New York, by the President of the Borough of Queens, to furnish all the labor and materials, and to excavate for, build, construct and in all respects complete sewer, etc., in Grand Ave, from 25th Street to 40th Street, Second Ward, together with all the work incidental thereto, as is fully and at large set forth and described in the contract aforesaid.

20

NOW, THEREFORE, The condition of the above obligation in such that if the said above bounden Contractor and its, his or their heirs, executors, administrators and assigns, or any or either of them, shall well and truly, and in a good, sufficient and workmanlike manner, perform or cause to be performed the said contract, and each and every of the covenants, promises, agreements and provisions therein contained to be performed by said contractor and complete the same within the period therein stipulated, and in each and every respect comply with the conditions therein contained, then this obligation to be void; otherwise, to remain in full force and virtue.

30

MUCCINI and DECKER [L. S.]

Contractor.

By ERNEST MUCCINI.

Sureties:

40

United States Fidelity and Guaranty Company,

By E. MARSAC,

Attorney-in-Fact.

EXHIBIT (*continued*).

Attest: William H. Estwick,
Attorney-in-Fact.
#277046-24

10 Royal Indemnity Company,
By AUGUST WESTPHAL,
Resident Vice-President.

Attest: ALLEN CARRUTHERS, Jr.,
Resident Ass.-Secretary.

20 Maryland Casualty Company,
By E. B. McCONNELL,
Attorney-in-Fact.

30 Certificate of acknowledgment of bond by the Contractor
if a partnership.

STATE OF NEW YORK,
COUNTY OF QUEENS,

ss :

40 On this 17th day of Sept., 1924, before me personally came
ERNEST MUCCINI to me known and known to me to be a
member of MUCCINI and DECKER the firm described in and
which executed the foregoing bond or obligation, and he acknow-
ledged to me that he subscriber the name of said firm thereto
on behalf of said firm for the purpose therein mentioned.

JEFFERSON J. REILLY
Commissioner of Deeds, New York City.

EXHIBIT (*continued*).

FUNDS

PRESIDENT'S CERTIFICATE

10 **Funds O. K. R.**

It is hereby certified that the estimated cost of the work and materials required by the within contract is Two hundred forty thousand eight hundred eighty three 91/100 DOLLARS (\$240,883.91), and is chargeable to the Street Improvement Fund of The City of New York.

20 **MAURICE E. CONNOLLY,**
President of the Borough of Queens.
The City of New York, Sept. 22, 1924.

30

40

EXHIBIT (continued).

SPECIFICATIONS.

—————
TRENCHES
—————

10

Length of trench.

1. Unless otherwise directed or permitted not more than 200 feet of any trench in advance of the end of the built sewer shall be open at any time, and unless written permission to the contrary is given, the trench shall be excavated to its full depth for a distance of at least 20 feet more than the minimum length of sewer permitted to be laid in it. (See paragraph 154.) Trenches for house connection drains shall not be open on both sides of the street at the same time, unless permission has previously been given to close the street. Unless otherwise directed, each trench for basin connections and house connection drains shall be fully excavated for its entire length before any pipes are laid therein.

Sheeting and bracing.

2. Where necessary the sides of the trenches and excavations shall be supported by adequate sheeting and bracing. Steel sheeting may be used only where shown on the plan or directed. Sheeting and bracing will be paid for only when left in place by written order, in which event the amount left in place will be paid for at the contract price for such material. Unless specially permitted sheeting against which concrete is placed shall not be removed and will not be paid for. The Contractor will be held accountable and responsible for the sufficiency of all sheeting and bracing used, and for all damage to persons or property resulting from the improper quality, strength, placing, maintaining or removing of the same.

Sheeting in soft material.

3. Where the material to be excavated is of such a character as to render it necessary, the sheeting shall be closely driven and to such depth below the bottom of the sewer as may be directed.

EXHIBIT (*continued*).

Tunneling.

4. All work shall be done in open trenches or excavations; no tunneling shall be done except with the consent of the Engineer.

Trees and stumps.

10

5. The Contractor shall grub and clear the surface over the trenches and excavations of all trees and stumps and remove the same from the work.

Material to be disinfected.

6. If required, any or all of the excavated material shall be satisfactorily disinfected or deodorized or immediately removed from the work.

20

Roadway, sidewalks, etc., to be kept clear.

7. The excavated material and materials of construction shall be so deposited, and the work shall be so conducted as to leave open and free for traffic all crosswalks, a space on each sidewalk not less than one-third the width of such sidewalk and unless permission is given to the contrary, a roadway not less than 8 feet wide for the free passage of vehicles. Street hydrants, water gates, fire alarm boxes and letter boxes shall be kept accessible for use. During the progress of the work the Contractor shall maintain such crosswalks, sidewalks and roadways in satisfactory condition, and the work shall at all times be so conducted as to cause a minimum of inconvenience to public travel, and permit of safe and convenient access to private and public property along the line of the work.

30

Surplus material.

8. If all of the excavated material cannot be stored on the street in such a manner as to maintain the traffic conditions hereinbefore specified, the surplus shall be removed from the work and stored. After the construction of the sewer, so much of this material as is of satisfactory quality and necessary for the purpose shall be brought back and used for backfilling the trench.

40

EXHIBIT (*continued*).

Fence.

9. Where necessary a suitable fence shall be placed along the sides of the trench to keep the street safe for traffic.

Temporary bridges.

10 10. Where any crosswalk is intersected by the trench, it shall be temporarily replaced by a substantial timber bridge not less than 3 feet wide, with side railings. Where required, suitable temporary bridges for vehicles shall be provided and maintained across the trench.

Disposal of water from trenches.

20 11. The Contractor shall at all times during the progress of the work keep the trenches and excavations free from water. The water from the trenches and excavations shall be disposed of in such a manner as will not cause injury to the public health, nor to public or private property, nor to the work completed or in progress, nor to the surface of the streets, nor cause any interference with the use of the same by the public.

Cost to be covered.

30 12. The cost of all labor required to be done and all materials required to be furnished in the performance of all of the work specified in paragraphs 1 to 11 inclusive, except as otherwise provided, shall be covered by all the contract prices for all the items for which there are contract prices.

EARTH EXCAVATION.

40 13. Earth exvacation shall include the removal of all material other than ledge rock.

Width of trench for sewers, etc.

14. The minimum widths of trenches in earth for pipe sewers, basin connections, house connections and other drains not over 18 inches in diameter, shall be such as to give a clearance inside the sheeting of 8 inches on each side of the pipe, and

EXHIBIT (*continued*).

10 for those of larger diameter 10 inches on each side of the pipe, exclusive of spurs and hubs; and all such trenches shall have a clear width equal to the maximum width of the cradles of the sewers to be laid in them, when such cradles are wider than the minimum widths herein specified. The minimum widths of trenches in earth, inside the sheeting, for other sewers shall be the greatest external width of the structures, including the necessary forms, to be built therein.

15. Where a riser, manhole or other appurtenance of the foundation therefor extends beyond the exterior lines of the sewer or its foundation, the minimum excavation in earth required for the same shall be that contained in a prism with vertical sides and a horizontal section equal to the smallest rectangle which will enclose such appurtenance and its foundation.

20 Excavation for basin manholes, etc.

16. The minimum dimensions of the excavation in earth, for brick basin manholes and inlets, shall be such as to give a clearance inside the sheeting of 1 foot on all sides, above the foundation, but in all such cases the excavation shall be large enough to include the foundations for such structures shown on the plan. The excavation for concrete basin manholes and inlets shall be of such dimensions as to permit the proper placing and removal of the necessary forms.

30

Depth of trenches.

17. The trenches shall be excavated to the depths required for the foundations of the sewers and appurtenances shown on the plan and where the conditions are such as to make it necessary to such additional depths as may be directed. Where pipe is laid without a cradle the bottom of the trenches shall be excavated to fit the lower third of the pipe, and excavations shall be made to receive the hubs. All irregularities in the bottoms of the trenches shall be filled up to the required grade with suitable material.

40

Cost to be covered.

18. The cost of all labor required to be done and all materials required to be furnished in the performance of all the

EXHIBIT (*continued*).

work specified in paragraphs 15 to 17 inclusive, except as otherwise provided, shall be covered by all the contract prices for all the items for which there are contract prices.

BACKFILLING.

10 Backfilling around sewers, etc.

29. Unless otherwise specified or directed, all trenches and excavations shall be backfilled immediately after the structures are built therein. For a depth of at least 2 feet over the top of the sewer, basin connection, house connection or other drain, the material for backfilling trenches as excavated shall be clean earth, sand or rock dust. It shall be carefully deposited in uniform layers not exceeding 6 inches in depth, and unless otherwise permitted, each layer shall be carefully and solidly tamped with appropriate tools in such a manner as to avoid injuring or disturbing the completed work.

Backfilling for remainder of trench.

30. Backfilling for the remainder of the trenches as excavated, shall be approved material free from organic matter and containing no stone over 10 inches in their largest dimensions. Any stones shall be so distributed through the mass that all interstices are filled with the fine material. This backfilling shall be deposited as directed, and unless otherwise permitted, shall be spread in layers and solidly tamped.

Backfilling around basin manholes, etc.

31. Backfilling within 2 feet of manholes, house connection drains, basin manholes, inlets and other structures shall be of the same quality as that specified in paragraph 29. It shall be uniformly deposited on all sides and unless otherwise permitted, solidly tamped in such a manner as to avoid injuring the structures or producing unequal pressures thereon.

Puddling.

32. Backfilling shall, if required, be flooded or puddled with water as the work progresses, instead of being tamped.

EXHIBIT (*continued*).

33. When sheeting is drawn, all cavities remaining in or adjoining the trench shall be solidly filled. When sheeting is left in place all cavities behind such sheeting shall be solidly filled as directed.

Deficiency of filling.

- 10 34. Unless otherwise shown on the plan, the trenches shall be backfilled to the height of the surface of the ground as it existed at the commencement of the work. Should there be a deficiency of proper material for the purpose, the Contractor shall furnish and place such additional material as may be required.

Temporary bulkheads.

- 20 35. For retaining the backfilling only temporary bulkheads will be allowed over sewers, basin connections and drains. Such bulkheads shall not be of stone, and they shall be removed as the trenches are backfilled.

Curves, branches, etc., not to be covered.

- 30 36. Basin connections, house and sewer connections and intersections, ends of sewers and branches shall not be covered until the Engineer shall have inspected, measured and located the same, and given permission to backfill the trenches over them.

Removal of surplus material.

- 40 37. As the trenches are backfilled, the Contractor shall remove all surplus materials and regrade and leave free, clear and in good order all roadways and sidewalks. During the progress of an until the final acceptance of the work, he shall maintain in good and safe condition the surface of the street over all the trenches, and promptly fill all depressions over and adjoining the trenches caused by settlement of the backfilling. In case of failure or neglect on the part of the Contractor to comply with the requirements of this paragraph within 24 hours after the service upon him of a written notice so to do, the President may furnish all materials and do all work required, and the cost thereof will be charged to the Contractor and deducted from any moneys due or to become due him under this contract. All

EXHIBIT (*continued*).

surplus material or any part thereof shall, if required, be deposited as directed on the streets and avenues within the limits of this contract, where the same are below grade, and in such a manner as to leave the surfaces of the filled material even.

Cost covered.

- 10 38. The cost of all labor required to be done and all materials required to be furnished in the performance of all the work specified in paragraphs 30 to 37, inclusive, shall be covered by all the contract prices for all the items for which there are contract prices.

CEMENT.

- 20 39. All cement used in the work shall be a high grade Portland cement of a well-established and approved brand. It shall be the product obtained by finely pulverizing clinker produced by calcining to incipient fusion, an intimate mixture of properly proportioned argillaceous and calcareous substances, with only such additions subsequent to calcining as may be necessary to control certain properties. Such additions shall not exceed 3 per cent. by weight, of the calcined product.

30 Specific gravity; weight.

40. The cement shall have a specific gravity of not less than 3.10 after being thoroughly dried at 212° F. It shall weigh not less than 380 pounds net, to the barrel, 4 bags of 95 pounds each being considered equivalent to a barrel.

Fineness.

- 40 41. The cement shall be dry, finely ground, of uniform color and free from lumps. It shall leave a residue of not more than 8 per cent. by weight, when passed through a No. 100 sieve, and not more than 25 per cent. when passed through a No. 200 sieve.

EXHIBIT (continued).

Tensile strength.

42. Standard briquettes shall develop within the periods specified, tensile strength not less than that shown in the following table:

10	Neat Cement:	
	24 hours	175 pounds per sq. in.
	7 days (1 day in moist air, 6 days in water)	500 pounds per sq. in.
	28 days (1 day in moist air, 27 days in water)	600 pounds per sq. in.
20	Mortar consisting of 1 part cement and 3 parts of Standard Ottawa Sand, by weight:	
	7 days (1 day in moist air, 6 days in water)	180 pounds per sq. in.
	28 days (1 day in moist air, 27 days in water)	225 pounds per sq. in.

30 The average of the tensile strenghts developed at each age by the briquettes in any set made from one sample will be considered the strength of the sample at that age, excluding any results that are manifestly faulty. The average strength of briquettes at 28 days shall be greater than the average strength at 7 days, and if tests are made after 28 days the strength shall be not less than that at 28 days.

Soundness.

40 43. Pats of neat cement when tested for constancy of volume or soundness shall remain firm and hard and show no sign of checking, cracking, distortion or disintegration.

Setting.

44. Unless otherwise required, the cement shall not develop initial set in less than 30 minutes, and shall develop final set in not less than 1 hour nor more than 10 hours. Quick-seeting

EXHIBIT (*continued*).

cement of an approved brand shall, if required, be kept on the work in sufficient quantity to provide for any contingency requiring the use of the same.

Testing.

- 10 45. The cement will be subjected to such tests as the Engineer may deem necessary, and such test will be made in accordance with the methods recommended by the Committee on Uniform Tests of Cement of the American Society of Civil Engineers, except that the time of setting will usually be determined by means of the Gillmore needlet. In case of dispute as to the time of setting, this test will be made by means of the Vicat needle.

Retesting.

- 20 46. Any cement which shall have been kept in storage after testing for a sufficient time to warrant it, shall be retested. Any prior acceptance shall be considered void and the acceptance or rejection of the cement shall depend upon the results of the latest tests.

Approval of brand may be rescinded.

- 30 47. The Engineer may at any time rescind the approval of any brand of cement that develops objectionable qualities.

Samples.

- 40 48. The Contractor shall notify the Engineer of the arrival of cement on the work, and furnish such facilities as may be required for obtaining samples for testing. Samples will be taken so as to fairly represent the material. The number of packages sampled and the quantity to be taken from each will depend upon the importance of the work and the number of tests to be made.

Delivery and storing.

49. Cement shall be delivered on the work in barrels or approved bags of uniform size, with the brand and name of the manufacturer plainly marked thereon; it shall be immediately stored in a dry place and carefully protected from the weather.

EXHIBIT (*continued*).

10 A sufficient stock of cement shall be kept on the work in advance of the necessity for its use to permit of the making of the required seven day tests. Except by written permission, no cement shall be used before it had been tested and accepted, and any concrete or masonry which may have been made under such permission with cement that is subsequently rejected, shall be removed and replaced by the Contractor, at his own expense, with concrete or masonry made of accepted cement.

Cost to be covered.

50. The cost of furnishing, storing and incorporating cement in the work, and the cost of samples required for testing, shall be covered by the contract prices for the structures or classes of work in connection with which the cement is used.

20

MORTAR.

51. All mortar used in the work, unless otherwise specified, shall be composed of 1 volume of cement, as in the original package, and $2\frac{1}{2}$ volumes of sand. Where required, mortar of cement and sand in other proportions or mortar of neat cement shall be used as directed.

30

Sand.

52. Sand shall be composed of grains of clean sharp quartz, not softer than hard limestone. It shall be moderately coarse and preferably made up of grains of varying size not exceeding one-quarter ($\frac{1}{4}$) inch producing a mass with low percentage of voids. It shall not contain, in all, more than five (5) per cent. by volume of clay, loam, mica, scales, silt, or other objectionable inorganic matter, nor more than one (1) per cent. of organic matter.

40

Tests may also be made of the cement and sand used in the proportions of one (1) part cement to three (3) parts sand, and these tests must show at least 70 per cent. of the strength of the mortar made with the cement and standard sand, or the sand may be rejected.

EXHIBIT (*continued*).

Mixing.

53. Mortar shall be mixed in a suitable box or on a tight platform, and never upon the pavement or ground. The cement and sand shall be thoroughly mixed dry, until the mixture has a uniform color. Clean, fresh water shall then be added and the mass worked until a mortar, which is uniform and of the required consistency is produced. The mortar shall be mixed in no greater quantity than is required for the work in hand, and any that has set sufficiently to require retempering shall not be used.

Freezing weather.

54. The mixing and use of mortar in freezing weather shall be subject to the same requirements as hereinafter specified for mixing and placing concrete under similar conditions.

20 Cost covered.

55. The cost of all labor and materials required to furnish and place the mortar in the work, as specified, shall be covered by the contract price for the structure or class of work in connection with which the mortar is used.

CONCRETE.

30

Class A concrete.

56. Class A concrete shall be made of 1 part of cement, 2 parts of sand and 4 parts of broken stone or gravel.

Broken stone or gravel.

40 57. Broken stone for Class A concrete shall be approved trap rock, dense fine-grained blue limestone or granite broken into roughly cubical or pyramidal fragments. Broken stone which contains dust, loam, clay, organic matter or other improper substances shall not be used. Broken stone for Class A concrete shall be the run of the crusher that will pass through a screen with circular openings $1\frac{1}{4}$ inches in diameter and shall be retained on a screen with openings $\frac{1}{8}$ -inch in diameter. Gravel

EXHIBIT (*continued*).

shall be equal in quality to North Shore Long Island gravel, shall be clean and sound, and shall be of the sizes herein specified for broken stone.

Measuring ingredients.

- 10 58. For the purpose of determining the proportions of the materials for concrete, each bag of cement will be considered as containing 9/10 cubic foot, and the other ingredients shall be measured by an approved method.

Water.

59. Only clean fresh water shall be used for concrete.

Mixing.

- 20 60. Unless permitted to be mixed by hand, concrete shall be mixed in approved mechanical batch mixers, so constructed and operated that the ingredients of the concrete may be accurately measured and thoroughly mixed. Enough water shall be added during the mixing to bring the concrete to the required consistency, which generally shall be such that the concrete may be poured into place without causing the separation of the stones from the mortar. When concrete is mixed by hand the broken stone or gravel shall be spread on a tight platform in a bed about 6 inches deep and shall be thoroughly wetted. The cement and sand shall be mixed dry on a suitable platform, until the mixture has a uniform color. This mixture shall be spread evenly on the bed or wet stone, water added, and the entire mass turned until each piece of stone is entirely coated with mortar and a concrete produced which is uniform and of the consistency herein specified for machine mixed concrete. When a comparatively dry concrete is required it shall be mixed to such consistency as may be directed.
- 30

40 Placing concrete.

61. Concrete shall be mixed only in such quantity as is required for the work in hand, and any that has set sufficiently to require ret tempering shall not be used. Any concrete in which the water has separated from the solid matter shall be satisfactorily remixed before being placed. The concrete shall be so deposited in the work as to prevent the separation of the stone

EXHIBIT (*continued*).

from the mortar. It shall be deposited in as nearly a continuous operation as practicable and shall be tamped or spaded with suitable tools to expel air bubbles and produce a dense and compact mass. When the operation of placing concrete is interrupted the concrete in the work shall, if required, be confined by suitable temporary forms or bulkheads. When concrete is to surround reinforcing metal, structural steel, or wire netting, it shall be so deposited as to work closely around such material. When a comparatively dry concrete is used it shall be deposited in horizontal layers not exceeding 6 inches in depth and solidly tamped.

Joining old and new concrete.

62. When fresh concrete is to be laid on or adjoining concrete already set, the surfact of the latter shall be thoroughly cleaned, washed, and roughened, and coated with a grout of neat cement before the fresh concrete is deposited.

Forms and centres.

63. The Contractor shall provided all necessary forms and centres for shaping concrete wherever used. They shall be true to the required shapes and sizes, strong enough and so secured in place as to withstand all operations incidental to placing the concrete, and watertight, and the face against which the concrete is to be placed shall be satisfactorily smooth and clean. Timber used in forms and centres for exposed faces of concrete shall be seasoned stock. Unless otherwise permitted, those surfaces of forms and centres which will be in contact with concrete shall be coated as directed with an approved lubricant; when no lubricant is required such surfaces shall be thoroughly wetted just before the concrete is placed.

Removal of forms and centres.

64. The forms and centres shall be left in place until the concrete has set sufficiently to permit their removal without danger to the structure, and until so much of the backfilling or embankment as may be directed has been put in place. No forms or centres shall be struck or removed until permission to do so has been given.

EXHIBIT (*continued*).

Exposed surfaces.

65. Special care shall be used to secure a smooth and uniform finish to the surfaces of concrete which will be exposed in the completed structure. Immediately after the removal of the forms such surfaces, if uneven, shall be rubbed smooth to a uniform and satisfactory finish, all exposed edges of concrete shall be neatly rounded as directed, and if any voids, projections or other imperfections be found, such defects shall at once be corrected by tooling, cutting out and filling with mortar, or otherwise, as directed.

Depositing concrete under water.

66. Whenever it becomes necessary to place concrete under water, it shall be deposited by means of drop-bottom buckets or other approved method. Concrete so deposited shall be carefully spread without tamping.

Freezing weather.

67. In freezing weather, until the temperature falls to 24 degrees Fahrenheit the water used for concrete shall, if directed, be heated to an approved temperature, and if directed one per cent, by weight of salt shall be added to the water for each degree Fahrenheit that the temperature of the air is below 32° F. The other materials for the concrete shall be heated sufficiently to remove all frost and ice. No concrete shall be laid when the temperature of the air is below 20 degrees Fahrenheit.

Protection.

68. Concrete shall be allowed to set for such time as may be directed before being worked or walked upon, or before filling, backfilling or other material is placed upon or against it. It shall not be flooded with water until it has sufficiently set. Concrete shall be carefully protected from injury, from freezing and from the drying effects of the sun and wind by covering it with canvas, bagging, hay or other suitable and approved materials. Such protection shall be placed as soon as the concrete is in condition to receive it, and except in freezing weather, the covering as well as the concrete shall be kept wet for such time as may be directed.

EXHIBIT (*continued*).

Prices to cover.

69. The cost of all concrete and the requirements specified in connection therewith shall be covered by the contract price for the structure in connection with which it is used.

BRICK MASONRY

10

Quality of bricks

70. All bricks used in the work shall be sound and hard burned throughout, and of uniform size and quality. If required the bricks shall be culled immediately after they are brought on the work and all bricks which are warped, cracked or of improper quality shall be at once removed. The proportion of bats permitted will be determined according to the character and location or the work in which they are to be used.

20

How laid

71. Bricks shall be satisfactorily wet when being laid and each brick shall be laid in mortar so as to form full bed, end and side joints in one operation. The joints shall be not wider than $\frac{3}{8}$ inch, except when the bricks are laid radially, in which case the narrowest part of the joint shall not exceed $\frac{1}{4}$ inch. The bricks shall be laid in a workmanlike manner, true to line, and wherever practicable the joint shall be carefully struck and pointed on the inside. Brickwork shall be laid with a satisfactory bond, and as it progresses shall be racked back in courses, unless otherwise permitted.

30

BRICKWORK.

Protection.

40

72. All fresh brickwork shall be carefully protected from freezing and from the drying effects of the sun and wind, and if required, it shall be sprinkled with water at such intervals and for such a time as may be directed. Brickwork shall be protected from injuries of all sorts, and all portions which may become damaged or may be found defective shall be repaired, or if directed, be removed and rebuilt.

EXHIBIT (*continued*).

Variation in weight.

10 77. When steel is inspected at the mill or shop all pieces (except plates), which vary in weight more than $2\frac{1}{2}$ per cent. from that specified shall be rejected; when steel is not inspected until it is delivered on the work such variation in weight will be sufficient cause for rejection when, in the judgment of the Engineer, the safety of the work will be impaired thereby.

Workmanship.

78. All structural steel shall be in accordance with the plan. All details not shown on the plan, and all workmanship and finish shall be equal to the best current practice in similar work for buildings.

20 Anchor bolts.

79. Anchor bolts and expansion bolts shall be furnished where required and set in place as directed. When holes are drilled in masonry or concrete for such bolts, the holes shall be washed clean and the bolts shall be firmly embedded in a mortar composed of equal parts of cement and sand, unless other material is shown on the plan.

Melt numbers.

30 80. Test specimens and every finished pieces of steel shall be stamped with melt or blow number, except that small pieces may be shipped in bundles securely wired together, with the melt or blow number on a metal tag attached.

Test and inspections.

40 81. The required tests and inspections of structural steel shall, if directed, be made at the mills and shops by the City's authorized inspector. The Contractor shall notify the City as to the mills and shops which are to supply the steel sufficiently in advance to enable the City to arrange for such tests and inspections and the mills and shops shall afford every facility for making the same.

EXHIBIT (*continued*).

Mill certificates.

82. If it is decided not to make the City's tests and inspections at the mills, then mill certificates showing the properties of each melt of which the steel is made will be accepted for consideration.

10 Shipping invoices.

83. The Contractor will be required to furnish complete copies of shipping invoices with each shipment of steel.

Certificates, etc., for information only.

20 84. Steel will not be accepted until the required inspector's reports or mill certificates are received. All tests, inspections, reports and certificates are for the information of the Engineer, and he shall not be precluded on account thereof from requiring or making any further tests which he may deem necessary.

Shop drawings.

30 85. The Contractor shall prepare complete and accurate shop drawings of all steel work, and no shop work shall be done until such drawings shall have been approved. The Contractor shall furnish the Engineer with 3 complete sets of prints of the approved shop drawings.

Painting.

40 86. All steel shall be thoroughly cleansed of scale, rust, oil and dirt, and unless otherwise directed, those parts which are not to be bedded in concrete shall be painted with a priming coat of the best red lead and linseed oil or such other paint of equivalent value as may be directed. After erection the metal which will be exposed in the finished work shall be evenly painted with 2 coats of approved paint. No painting shall be done on wet surfaces.

Measurement.

87. The amount of structural steel paid for as such will be all structural steel placed in the work in accordance with the plan or directions, except any excess greater than $2\frac{1}{2}$ per cent.

EXHIBIT (*continued*).

above the weight required, and except such structural steel shown on the plan as being part of structure for which there are contract prices, and the cost of which is hereinafter specified to be covered by the contract prices for such structures.

Price to cover.

- 10 88. The Contract price for structural steel shall cover the cost of all labor and materials required to furnish, fabricate, erect and paint the same, to furnish all test pieces, to prepare and furnish prints of shop drawings, and to drill holes for and set anchor and expansion bolts, where required, all as specified.

STEEL REINFORCEMENT BARS.

20 Shape

89. Steel bars for reinforcing concrete shall be of such shape as to afford an approved mechanical bound with the concrete frequent intervals and to insure intimate contact between the steel and concrete

Samples

- 30 90. The Contractor shall indicate the type of bars proposed to be used, and if required shall furnish samples thereof, and he is cautioned not to place the order for the bars until the type has been approved.

Size

- 40 91. Each bar shall have a net cross sectional area equivalent to that designated on the plan or required, or it shall be the commercial size of the approved type of bar having a net cross sectional area next larger than that designated or required.

Variation in weight.

92. Reinforcement bars will be rejected if their actual weight varies more than 5 per cent. from their theoretical weight as shown by the manufacturer's tables.

EXHIBIT (*continued*).

Quality.

93. All steel for reinforcement bars shall be made by the open hearth process and shall conform to the latest revised Standard Specifications for Steel Reinforcement Bars adopted by the American Society for Testing Materials, and such tests as may be required, shall be made in accordance therewith, and at the places hereinafter specified. The chemical and physical properties of the steel shall be as follows:

Properties Considered	Structural Steel Grade		Cold Twisted Bars
	Plain Bars	Deformed Bars	
Phosphorus, max.			
Open Hearth	0.05	0.05	0.10
Bessemer	0.10	0.10	0.05
Ultimate Tensile Strength, pounds per sq. in.	55,000-70,000	55,000-70,000	Recorded only
Yield Point, minimum pounds per sq. in.	33,000	33,000	55,000
Elongation, minimum per cent. in 8 inches	1,400,000	1,250,000	5 per cent.
	tens. str.	tens. str.	
Cold bend without fracture:			
Bars under 3/4 in. in diam. or thickness	180° to diam. of 1t.	180° to diam. of 1t.	180° to diam. of 3t.
thickness and over	180° to diam. of 1t.	180° to diam. of 2t.	180° to diam. of 2t.

t : Nominal thickness or diameter of bar.

94. Reinforcement bars shall be rolled from billets of new steel; they shall be straight and free from seams, flaws, cracks and imperfections of all kinds.

95. Test pieces 18 inches long may be cut from any of the bars delivered on the work, and the failure of any test piece to meet the specified requirements, or the failure of any bar when being bent, will be sufficient cause for the rejection of all steel from the melt from which the test piece or bar was made.

96. Bending sheets for steel reinforcement shall be furnished, if required, in which case the reinforcement bars shall not be bent until such bending sheets have been approved.

EXHIBIT (*continued*).

Delivery and protection.

10 97. Bars shall be delivered in bundles, to each of which shall be securely wired a metal tag with the number of the melt from which the bars were made stamped thereon. The bars shall be protected at all times from mechanical injury and from the weather and when placed in the work they shall be free from dirt, scale-rust, paint and oil. Bars which are not to be embedded in concrete within a short time after being placed in the work shall, if directed, be immediately coated with a thin grout of equal parts of cement and sand.

Cutting and bending.

20 98. The bars shall be bent to the shapes shown on the plan and in conformity with approved templets. When bars are cut and bent on the work, the contractor shall employ competent men and shall provide the necessary appliances for the purpose.

Placing

99. All bars shall be as long as can be conveniently used accurately bent, placed, spaced and pointed as shown or directed, and they shall be securely held in their required positions by approved devices until the concrete has been placed around them.

30 Cost covered.

100. The cost of all steel reinforcement bars and the requirements specified in connection therewith shall be covered by the contract price for the structure in connection with which it is used.

WROUGHT IRON

40 Quality.

101. Wrought iron shall be double rolled, tough, fibrous and uniform in quality. It shall be thoroughly welded in rolling and be free from surface defects. It shall have an ultimate tensile strength of at least 48,000 pounds per square inch, an elongation

EXHIBIT (*continued*).

of at least 20 per cent. in 8 inches, and a fracture wholly fibrous. Specimens shall bend cold, with a fiber, through 180 degrees around a diameter equal to the thickness of the piece tested. When nicked and bent the fracture shall be at least 90 per cent. fibrous.

Galvanizing,

- 10 102. Exposed wrought iron shall be thoroughly and uniformly galvanized.

Cost covered.

103. The cost of all wrought iron and the requirements specified in connection therewith shall be covered by the contract price for the structure in connection with which it is used.

20

IRON CASTINGS.

Quality.

- 30 104. Iron castings shall be of the best foundry pig iron, gray, tough and free from cold shuts, blow holes and other imperfections. The wenght shall be conspicuously painted by the manufacturer with white oil paint on each casting. The casting shall be sound, clean and neatly finished. Where required, castings shall be thoroughly coated with coal tar pitch varnish.

Cost covered.

105. The cost of all labor and materials required to furnish, coat and place the castings as specified, shall be covered by the contract price for the structure or class of work in connection with which they are used.

40

TIMBER.

Quality.

106. All timber shall be merchantable pine or spruce, unless otherwise specified, and shall be sound and free from

EXHIBIT (*continued*).

shakes, cracks, large or loose knots, and other defects impairing its strength or durability. It shall be squared to the required dimensions throughout its entire length.

Placing.

107. Timber shall be placed where shown on the plan or directed, and where necessary shall be firmly spiked or bolted with approved nails, spikes or bolts of such sizes and lengths and at such places and in such numbers as shown on the plan, or as directed.

Measurement.

108. The amount of timber to be paid for as such will be all timber placed in the work in accordance with the plan or directions, except piles and timber sheeting, and except such timber shown on the plan as being part of structures for which there are contract prices, and the cost of which is hereinafter specified to be covered by the contract prices for such structures. The amount paid for will not include timber used for forms, templets, centers, scaffolds, bridges (unless otherwise specified), fences, guard rails or other temporary structures, the cost of all of which there are contract prices. No deduction will be made in the measurement of timber flooring on account of the spaces occupied by the piles.

- 30 Price to cover.

109. The contract price for timber shall cover the cost of all labor and materials required to furnish, work, place and secure the same, as specified.

TIMBER SHEETING.

- 40 Quality, placing, etc.

110. Timber sheeting and the rangers and braces for the same shall be of a satisfactory quality of timber and of sufficient size and strength to adequately support the sides of the trenches and excavations. Sheeting shall be driven in such a manner as to avoid cracking and splitting, and if required for the proper prosecution of the work, shall be tongued and grooved.

EXHIBIT (*continued*).

When paid for.

111. Timber sheeting will be paid for as such only when left in place by written order. When sheeting is left in, so much of it below the surface of the ground as may be directed shall be cut off.

10 Measurement.

112. The amount of timber sheeting to be paid for as such will be all timber sheeting, rangers and braces left in place by written order, and will not include sheeting, rangers and braces left in place without such order, nor sheeting left in place because concrete is placed against it, nor that part of the sheeting that extended above the ground after having been driven, the cost of all of which shall be covered by the contract prices for all the items for which there are contract prices. Inclined piling or planking at the bottom of a trench, if used to prevent the caving in of the excavation and in such a position that it cannot be drawn, shall be paid for at the price bid for sheet piling.

Price to cover.

113. The contract price for timber sheeting shall cover the cost of all labor and materials required to furnish, place and cut off the sheeting, rangers and braces as specified, and shall also cover the cost of all excavation necessary to place the same.

PILES.

Quality.

114. Piles shall be of white oak, spruce or yellow pine, sound and free from splits, shakes and other imperfections impairing their strength or durability. They shall be straight, taper uniformly from butt to point and if required shall be barked. Unless otherwise shown on the plan, they shall conform to the following dimensions:

EXHIBIT (continued).

Dimensions.

	Length Below Cutoff	Minimum Diameter at Point	Minimum Diameter at Cutoff
	Less than 20 feet	6 inches	10 inches
	20 feet to 25 feet	6 inches	11 inches
10	26 feet to 35 feet	6 inches	12 inches
	36 feet to 45 feet	6 inches	13 inches
	46 feet and over	6 inches	14 inches

115. To determine the necessary length of piles to be used in the work, the Contractor may be required to drive test piles.

116. Each pile less than 60 feet long shall be in one piece; piles longer than 60 feet may be spliced in an approved manner. The small ends of piles shall be pointed, and, if required, shall be shod with approved iron shoes. The butt ends of piles shall be cut off square and protected with approved iron bands while driving.

How driven.

117. Piles shall be driven without the use of a follower, unless specially permitted. Pile heads that become split or broomed shall be cut off and the driving continued. Any pile which splits, breaks or drives unsatisfactorily will not be paid for, and it shall be withdrawn or abandoned and another driven in place of it. After being driven piles shall be accurately cut off at the required elevation.

Bearing pile.

118. Bearing piles shall be driven vertically and shall be spaced as shown on the plan or as directed. They shall be driven to a satisfactory refusal by a hammer having a concave face and weighing not less than 2,000 pounds nor more than 2,500 pounds. Refusal in general will be indicated by a penetration not exceeding 1 inch per blow under the last 6 blows of the hammer falling 15 feet. If steam hammer pile drivers are used, the piles shall be driven so that their bearing power shall be not less than that of piles driven as herein specified. When it is shown on the plan or specified that piles are to be driven to a certain required depth, they shall be driven if necessary, by the use of a water jet or by any other approved method.

EXHIBIT (*continued*).

Brace piles.

119. Where shown on the plan, brace, batter or spur piles shall be driven at the inclination shown or directed, to a satisfactory refusal, and the tops shall be framed, bolted or strapped to adjoining piles or to each other as shown on the plan, or directed.

10

Measurement.

120. The amount of piles to be paid for will be the total length below cutoff of all piles remaining in the work in accordance with the plan or directions, and the total length of all piles used only as test piles. Piles driven for temporary use will not be paid for.

20

Price to cover.

121. The contract price for piles shall cover the cost of all labor and materials required to furnish, drive and cut off the same as specified, of fastening brace piles, and of furnishing and placing all shoes, bands, bars, straps, bolts and other fastenings required.

CONCRETE SEWERS.

30

(Type "A" or Sewer Department Standard)

Inverts.

40

122. Inverts of concrete sewers shall be formed between transverse templets and shall be screeded. The templets shall be placed at such intervals as to divide the invert into sections of suitable size for convenient construction, and unless otherwise permitted, the concrete shall be deposited in alternate sections and allowed to set before the remaining sections are built. Unless otherwise shown on the plan, a layer of mortar not less than $\frac{1}{2}$ inch thick shall be spread evenly and to a smoothly finished surface upon the concrete of the invert as soon as such concrete is in place. Where the radii of inverts are too short to permit screeding between templets, the inverts shall be shaped by means of suitable forms, which shall be removed as soon as the con-

EXHIBIT (*continued*).

crete has a sufficient set, and if required, the surfaces of inverts shall be floated or troweled to a smooth finish. The concrete for inverts shall be deposited continuously for their entire cross sections and for such longitudinal distances as may be convenient. Inverts shall be carefully protected from all injury during progress of the work.

10 Side walls.

123. Concrete in the side walls of sewers shall be deposited continuously to the height directed and for such longitudinal distances as may be convenient.

Roof.

20 124. Concrete in the roofs of sewers shall be deposited continuously for the full depths and widths of the roofs and for such longitudinal distances as may be convenient. The outer surfaces of roofs shall be finished with an excess of mortar and left true and smooth. They shall be covered and protected as specified in paragraph 68, and such covering shall remain thereon until the backfilling or embankment is placed.

Bulkheads.

30 125. While being deposited the concrete for sewers shall be confined by temporary, vertical bulkheads placed at such intervals longitudinally as may be required for convenient working. The bulkheads shall be so designed as to give an approved shape to the end of the section of concrete under construction, shall be satisfactorily secured in place before the concrete is deposited, and shall remain in place until the concrete has set sufficiently to hold its shape.

Reinforcement.

40 126. Where shown on the plan concrete sewers shall be reinforced with metal of the dimensions and shapes shown, and of the quality and in the manner hereinbefore specified.

Minimums length of invert.

127. Unless otherwise permitted or ordered, not less than 16 feet of foundation or invert for concrete sewer shall be built at one operation.

EXHIBIT (*continued*).

Connections.

128. Connections and branches for lateral sewers and basin manholes shall be built in where shown on the plan or where directed. Such connections and branches shall be closed with bulkheads of brick masonry 8 inches thick unless otherwise shown on the plan. All necessary openings and bulkheads for branch
10 sewers shall be built in concrete sewers where shown on the plan or where directed.

Measurements.

129. The lengths of concrete sewers will be determined by horizontal measurements, along their centre lines. No deductions will be made on accounts of openings at branches and manholes. The measurement of a branch concrete sewer will be made from the inner surface of the wall of the main sewer through which it
20 enters. A reducer will be paid for at the contract price for the sewer at the larger end thereof.

Price to cover.

130. The contract prices for concrete sewers shall cover the cost of all necessary excavation (except rock); of furnishing, maintaining and removing all forms, centres, templets and temporary bulkheads; of all openings and bulkheads; of all back-filling; and of all labor and materials required to construct concrete sewers as shown by the normal sections on the plan and as
30 specified.

TYPE "B"

Cement Concrete Pipe With Reinforcement

131. Reinforced cement concrete pipe used shall be circular in section with or without flat base and shall conform in
40 dimensions as shown in table.

General dimensions of pipes and minimum test load per lin. ft. of pipe.

EXHIBIT (continued).

	Size	Minimum thickness	Minimum length in feet	Minimum joint length inches	Minimum test load per lin ft. of pipe
10	24"	3 "	4'	3 "	3350 Lbs.
	27"	3½"	4'	3 "	3700 "
	30"	3½"	4'	3 "	4400 "
	33"	4 "	4'	3 "	4600 "
	36"	4 "	4'	4 "	4800 "
	39"	4 "	4'	4 "	5200 "
	42"	4½"	4'	5½"	5600 "
	45"	4½"	4'	5½"	6100 "
	48"	5 "	4'	5½"	6600 "
	51"	5 "	4'	5½"	7050 "
	54"	5½"	4'	5½"	7500 "
	57"	5½"	4'	5½"	7750 "
	60"	6 "	4'	5½"	8000 "
	20	63"	6 "	4'	5½"	8400 "
66"		6½"	4'	5½"	8800 "
72"		7 "	4'	5½"	9400 "
78"		8 "	4'	5½"	10400 "
84"		8 "	4'	5½"	11200 "
90"		8½"	4'	5½"	12000 "
96"		8½"	4'	5½"	12800 "
102"		9 "	4'	5½"	13600 "
108"	9 "	4'	5½"	14400 "	

30 Testing pipe.

Reinforced concrete pipe shall not have less thickness of concrete, less length of pipe or joint than specified above, and two (2) pipes for each size of sewer (reinforced concrete) shall be selected at random for a load test. These pipes shall be tested at the age of twenty-one (21) days and the total load specified per lineal foot shall be applied on the upper half of the sewer. The lower half of the pipe shall be supported in a cradle covering an arc 180 degrees. The pipe shall sustain these loads per lineal foot without hair-cracks of any kind whatsoever. Failure to fulfill the above requirements in the manner set forth will be sufficient cause for the rejection of the pipe. Testing of pipe shall be done by the contractor at his own expense and under the supervision and to the satisfaction of the Engineer-in-Charge of Engineering Construction.

EXHIBIT (*continued*).

Material of pipe, cement, sand, stone or gravel.

10 132. Reinforced concrete pipe shall be constructed at the site of the work, in a shed if the weather requires, and the pipe shall be made by a manufacturer of established reputation, who shall have had previous experience in the manufacture of reinforced concrete pipe. The cement, sand, stone or gravel shall conform the specifications of the Division of Sewers, Bureau of Engineering Construction. The forms shall be of steel and the reinforcing steel shall be held at all times against displacement in tamping. Concrete shall be can be an accurate 1—2—4 mix. Each pipe shall be as made with rate of manufacture.

Joints.

20 133. The pipe shall be of the bell and spigot type, the bell not to project beyond the body of the pipe, but to be flush with it. No pipe having a butt joint will be considered. No variation over one-half ($1\frac{1}{2}$) per cent. from the hereinbefore mentioned dimensions will be permitted.

Jointing.

30 134. All joints to be made of 1 : 2 Portland cement mortar. The mortar shall be thoroughly trowelled in the recess in the interior of the pipe up to the spring line, making a continuous invert. After this has been done, steel forms especially designated for the purpose shall be placed over and around the entire joint, and the mortar for sealing the arch portions grouted or poured through an opening in the crown of the pipe. Joints must be water-tight.

Laying pipe.

40 135. No pipe not marked with date of manufacture shall be laid or accepted. No pipe shall be laid in the trench which has not been seasoned for twenty-one (21) days, unless otherwise Construction.

Steel for reinforcement.

136. Reinforcing steel may be either expanded metal deformed bars, or wire mesh, such as American Steel & Wire

EXHIBIT (*continued*).

Company's, or Clinton Wire Cloth. For all sizes of reinforced concrete pipe, reinforcing shall be at distances not less than one (1) inch from the surface.

Spurs.

10 137. Reinforced concrete pipe shall have openings to receive spur and branch connection wherever required by the plans. The openings shall be made in a manner satisfactory to the Engineer-in-Charge of Engineering-Construction.

Disposal of water from tranches.

138. The provisions of paragraph No. 11 of the specifications shall be in full force and effect, even though reinforced concrete pipe shall be furnished on this contract.

20 Rejection of defective pipe.

139. Pipe damaged from handling or any cause whatsoever, whether in or out of the trench, shall be replaced and removed from site of the work at the expense of the contractors.

Depth of cover.

30 139a. Where depth of cover on precast pipe sewer is sixteen feet (16') or over extra reinforcing steel shall be used in the pipe to take care of the increased stresses. The cost of such extra steel shall be included in the price bid for precast pipe sewers.

Measurements.

139b. Precast concrete pipe, Type "B", will be paid for from the inside face of all chambers.

40

VITRIFIED PIPE SEWERS.

Vitrified pipe.

140. Vitrified pipe sewers shall be built of shale or clay hub and spigot pipes with deep and wide sockets. They shall be thoroughly and perfectly burned, without warps, cracks or other

EXHIBIT (continued).

10 imperfections, and shall be fully and smoothly salt-glazed over the entire inner and outer surfaces, except that the inside of the hub and the outside of the spigot may be unglazed for two-thirds the depth of the hub. On all other portions of the pipe the glazing shall completely cover and form an integral part of the pipe body. If not left unglazed the inside of the hub and the outside of the spigot shall be scored in 3 parallel lines extending completely around the circumference. When it is broken, vitrified pipe shall show dense and solid material, without serious cracks or laminations; it shall be of such toughness that it can be worked with a chisel and hammer, and when struck with a hammer, it shall have a metallic ring.

Identification marks.

20 141. Each shall have clearly impressed on its outer surface the name of the manufacturer and of the factory in which it was made.

Shape and dimensions.

142. The sizes of the pipes are designated by their interior diameters. Each pipe shall be a cylinder with a circular section, and shall have a uniform thickness. The minimum lengths, thicknesses, depths of hubs and annular spaces for the respective sizes of pipe shall be as follows:

30	Size	Length	Thickness	Depth of Socket	Annular Space
	6.....	2 feet	5/8 inch	2 1/2 inches	5/8 inch
	8.....	3 "	3/4 "	2 3/4 "	5/8 "
	10.....	3 "	7/8 "	2 3/4 "	5/8 "
	12.....	3 "	1 "	3 "	5/8 "
	15.....	3 "	1 1/4 "	3 "	5/8 "
	18.....	3 "	1 1/2 "	3 1/4 "	5/8 "
	20.....	3 "	1 2/3 "	3 1/2 "	5/8 "
40	22.....	3 "	1 5/6 "	3 3/4 "	5/8 "
	24.....	3 "	2 inches	4 "	5/8 "

Curves, bends, etc.

143. Where curved pipes are required they shall be furnished in either one-eighth or one-quarter bends of their respective sizes. Curved pipe, bends, siphons, and special pipe of the

EXHIBIT (continued).

sizes and forms shown on the plan shall be furnished and laid, and unless otherwise provided they will be paid for at the contract prices for the corresponding sizes of vitrified pipe sewers.

Samples for testing.

10 144. Any or all of the following tests may be applied to samples selected on the work. For the purposes of making such tests as may be required the Contractor shall furnish and deliver when and where directed one length of pipe for each 200 feet of pipe sewer to be laid.

Crushing tests.

20 145. When supported at the bottom upon a knife edge one inch in width in such manner that an even bearing is provided throughout the whole length, exclusive of the bell, and pressure is applied at the crown uniformly through a similar knife edge, the various sizes of pipe shall withstand the following pressures:

	Diameter	Pressure
	6 inches	900 lbs. per lin. ft.
	8 "	900 " " " "
	10 "	1,000 " " " "
	12 "	1,050 " " " "
30	15 "	1,250 " " " "
	18 "	1,400 " " " "
	20 "	1,550 " " " "
	22 "	1,750 " " " "
	24 "	1,950 " " " "

Drop weight test.

40 146. When supported on a dry sand bed 2 inches deep, all pipe shall withstand without cracking the impact from 2 blows of a cast iron ball weighing 8 pounds falling 18 inches. Spurs shall resist without fracture the impact from 2 blows of such a ball falling 6 inches and striking on the extreme end of the hub of the spur.

EXHIBIT (*continued*).

Hydrostatic test.

147. When subjected to an internal hydrostatic pressure of 8 pounds per square inch, vitrified pipe shall show no percolation.

Absorption test.

10

148. After having been thoroughly dried and then immersed in water for 24 hours, sample pieces of pipe with all broken edges shall not absorb more than 4 per cent. of their weight of water.

Factory rejection.

20

149. The entire product of any pipe factory may be rejected when, in the judgment of the Engineer, the methods of manufacture fail to guarantee uniform results, or where the materials used are such as produce inferior pipe, as indicated by repeated failure to comply with the tests herein specified.

Without cradle.

30

151. When the sewer is to be laid without a cradle the trench shall be excavated as specified in paragraph 17 and the earth forming the bed carefully freed of stones. The pipe shall then be evenly bedded therein and the backfilling placed and firmly tamped in such a manner as to avoid disturbing the sewer.

How laid.

40

154. All pipes shall be laid with ends abutting and true to line and grade. The pipes shall be fitted together and matched so that when laid in the work they will form a sewer with a smooth and uniform invert. Unless otherwise permitted or directed, not less than form invert. Unless otherwise permitted or directed, not less than 12 feet of pipe sewer shall be laid in one operation.

Gasket and mortar joints.

155. Unless otherwise shown on the plan, the joints of vitrified pipe sewers shall be made as hereinafter specified in paragraph 156.

EXHIBIT (*continued*).

156. Gasket and mortar joints shall be made in the following manner: A closely twisted hemp or oakum gasket of suitable diameter, in no case less than $\frac{3}{4}$ -inch, and in one piece of sufficient length to pass around the pipe and lap at the top, shall be solidly rammed into the annular space between the pipes with a suitable calking tool. Before being placed, the gasket shall, if directed, be saturated with neat cement grout. The remainder
10 of the space shall then be completely filled with plastic mortar mixed 1 to $1\frac{1}{2}$, and the joint wiped inside and finished to a smooth bevel outside.

Inspection of joints.

157. Unless otherwise permitted, at least 4 finished joints shall be left exposed for inspection throughout the working day, and the necessary staging for the protection of the exposed sewers and for the handling of excavated material shall
20 be provided. A suitable ladder affording easy access for such inspection shall be furnished at every trench open for the proposed sewer.

Subgrade to be tested.

158. No pipe shall be laid or placed until the subgrade of the trench shall have been tested and found correct.
Sewer to be kept clean.

30 159. The interior of the drain shall, as the work progresses, be cleared of all dirt, cement and superfluous materials of every description.

Backfilling.

160. Immediately after the drain is laid the trench shall be backfilled as provided in paragraphs 29 to 37 inclusive and 157. No walking on or working upon the completed drain (except as may be necessary in tamping the backfiling) will be permitted until the trench has been backfilled to a height of at least
40 2 feet over the top of the sewer.

Temporary covers.

161. The exposed ends of pipe drains shall be provided with approved temporary covers fitted to the pipe so as to exclude earth and other materials.

EXHIBIT (continued).

Branch pipes.

162. Branch pipes and connection pipes shall be of the same quality and dimensions, and laid in the same manner as specified for vitrified pipe sewers. Dead ends of pipes shall be closed with bulkheads of brick masonry 8 inches in thickness.

10 Connection with existing work.

163. Wherever the proposed drain is to connect with an existing manhole in which there is a branch pipe which is damaged or of unsuitable size or in improper position, such pipe shall be removed and be replaced with a pipe of suitable size or be reset in the proper position. The pipe so substituted or reset will be paid for at the contract price, for the corresponding size of pipe drain.

20 Pipes cut to fit masonry.

164. The ends of pipes which enter masonry shall be neatly cut to fit the face of the masonry. When directed, such cutting shall be done before the pipes are built in.

Measurement.

30 165. The length of pipe drains to be paid for will be determined by horizontal measurements along their center lines, and no deductions will be made on account of openings at manholes, and the measurements will be made to the inside face of all chambers.

Prices to cover.

40 166. The contract prices for vitrified pipe drains shall cover the cost of all necessary excavation (except rock) of all necessary trimmings, fittings and building into masonry; of all bulkheads; of all backfilling; of all samples furnished; and of all labor and materials required to furnish and lay the drains complete in place, as shown on the plan and as specified.

EXHIBIT (continued).

CAST IRON PIPE SEWERS.

Cast iron pipe.

167. Cast iron pipe for sewers shall conform with the requirements of the latest revised Standard Specifications for Cast Iron Pipe adopted by the American Society for Testing Materials, and all tests required shall be made in accordance therewith.

168. The thickness of shell and weight of the several classes of pipe, and the allowable variations of diameter and weight shall be as follows:

Nominal Inside Diam. Ins.	Class A 100 Ft. Head 43 Lbs. Pressure		Class B 200 Ft. Head 80 Lbs. Pressure		Class C 300 Ft. Head 130 Lbs. Pressure		Allowable Variations	
	Thick-ness Ins.	Weight	Thick-ness Ins.	Weight	Thick-ness Ins.	Weight	Diameter	Weight
4...	0.42	240	0.45	260	0.48	280	0.06 in.	5 per cent.
6...	0.44	370	0.48	400	0.51	430	0.06 "	5 " "
8...	0.46	515	0.51	570	0.56	625	0.06 "	5 " "
10...	0.50	685	0.57	765	0.62	850	0.06 "	5 " "
12...	0.54	870	0.62	985	0.68	1,100	0.06 "	5 " "
14...	0.57	1,075	0.66	1,230	0.74	1,400	0.06 "	5 " "
16...	0.60	1,300	0.70	1,500	0.80	1,725	0.06 "	5 " "
18...	0.64	1,550	0.75	1,800	0.87	2,100	0.08 "	4 " "
20...	0.67	1,800	0.80	2,100	0.92	2,500	0.08 "	4 " "
24...	0.76	2,450	0.89	2,800	1.04	3,350	0.08 "	4 " "
30...	0.88	3,500	1.03	4,000	1.20	4,800	0.10 "	4 " "
36...	0.99	4,700	1.15	5,450	1.36	6,550	0.10 "	4 " "
42...	1.10	6,150	1.28	7,100	1.54	8,600	0.10 "	4 " "
48...	1.26	8,000	1.42	9,000	1.71	10,900	0.12 "	4 " "
54...	1.35	9,600	1.55	11,200	1.90	13,700	0.15 "	4 " "
60...	1.39	11,000	1.67	13,250	2.00	16,100	0.15 "	4 " "

The above weights are for 12 feet laying lengths and standard sockets; proportionate allowance will be made for any variation therefrom.

Variation in thickness.

169. For pipes whose standard thickness is less than 1 inch, the thickness of metal in the body of the pipe shall not be

EXHIBIT (*continued*).

more than 0.08 inch less than the standard thickness; and for pipes whose standard thickness is 1 inch or more, the variation shall not exceed 0.10 inch, except that for areas not exceeding 8 inches in any direction, variations from the standard thickness of 0.02 inch in excess of the allowance above given will be permitted.

10 Coating.

170. All cast iron pipe shall be thoroughly and evenly coated inside and outside with coal tar pitch varnish. The coating shall be smooth, tough and tenacious when cold and shall not be brittle or have any tendency to scale off.

Marking.

20 171. The weight and class letter shall be conspicuously painted by the manufacturer with white oil paint on the inside of each pipe after the coating is hard.

172. Joints of cast iron pipe sewers shall be of the kinds shown on the plan.

Lead joints.

30 173. When lead joints are required, the inner portion of the annular space between the pipes shall be packed with clean, sound jute packing yarn, and the remaining portion shall be run full of pure soft lead and calked with suitable tools. Unless otherwise shown on the plan the depths of the lead joints shall be $2\frac{1}{2}$ inches for 6-inch to 8-inch pipe, 3 inches for 12-inch to 24-inch pipe and $3\frac{1}{2}$ inches for 30-inch to 48-inch pipe.

Mortar joints.

40 174. When gasket and mortar joints are required, they shall be made as specified in paragraph 156.

175. All the requirements, as hereinbefore specified, relating to excavation, laying, backfillings and measurement of vitrified pipe sewers shall apply, as far as they are applicable, to cast iron pipe sewers.

EXHIBIT (continued).

Prices to cover.

176. The contract prices for cast iron pipe sewers shall cover the cost of all necessary excavation (except rock); of all bulkheads of all backfilling; and of all labor and materials required to furnish and lay by the sewers complete in place, as shown on the plan and as specified.

10

BASIN CONNECTIONS.

177. The connections between inlets and manholes shall be of vitrified pipe or cast iron of the size shown on the plan or on the standard details on file in the Engineer's Office, Bureau of Engineering-Construction, Division of Sewers. The pipes shall be of the same quality and dimensions, and laid in the same manner as hereinbefore specified for vitrified pipe drains.

20

Measurement.

178. The lengths of basin connections to be paid for will be determined by measurements along their axes.

Prices to cover.

179. The contract price for basin connections shall cover the cost of all necessary excavation (except rock); of all necessary trimming, fitting and building into concrete, or masonry; of all backfilling; and of all labor and materials required to furnish and lay the basin connections complete in place, as specified.

30

SPURS FOR HOUSE CONNECTIONS.

180. Spurs for house connections shall be of vitrified pipe 6 inches in diameter, equal in quality and dimensions to that specified for vitrified pipe sewers.

40

In concrete sewers.

181. In concrete sewers spurs shall be built in as shown on the plan or as directed. They shall be hub and spigot pipes

EXHIBIT (*continued*).

with the spigot end molded or cut to fit flush with the inner surface of the sewer, and of sufficient length to reach the exterior of the sewer.

In pipe sewers.

- 10 182. Pipes having 6-inch spurs with hubs molded thereon shall be furnished and laid in pipe sewers where shown on the plan or directed. Such pipes will be paid for at the contract prices for vitrified pipe sewers, and the spurs will be paid for in addition at the contract price for spurs.

Covers.

- 20 183. The ends of all spurs not connected with drains shall be closed with approved covers. If required such covers shall be cemented in place, and when directed the covers shall be so cemented before the pipes are lowered into the trench.

Price to cover.

184. The contract price for spurs shall cover the cost of all labor and materials required to furnish and place the same as specified, and the cost of furnishing and cementing the covers for the same.

30

DRAINS FOR HOUSE CONNECTIONS.

185. Where shown on the plan or where directed, drains for house connections shall be built from the spurs in such a manner and for such distance as may be shown or directed.

Depth at curb.

- 40 186. House connection drains shall be laid with a minimum gradient of $\frac{1}{4}$ inch to a foot, and wherever possible the depth from curb grade to the inner bottom of the drain at curb line shall be at least 8 feet.

Material.

187. Unless otherwise shown on the plan, drains for house connections shall be of vitrified pipe of the quality and dimen-

EXHIBIT (*continued*).

sions specified for vitrified pipe sewers. The ends of the drains shall be closed with approved covers.

How laid.

10 188. All the requirements, as hereinbefore specified, relating to excavation, laying and backfilling of vitrified pipe sewers shall apply, as far as they are applicable, to drains for house connections.

Measurement.

189. The lengths of pipe drains for house connections to be paid for will be determined by measurement along their axes.

Price to cover.

20 190. The contract price for drains for house connections shall cover the cost of all necessary excavation (except rock); the cost of all backfilling; the cost of all covers, bends and specials required; and the cost of all labor and materials required to finish and lay the drains for house connections complete in place, as specified.

RISERS.

30 191. Where shown on the plan or where directed risers for house connections shall be built from the spurs in such a manner and to such height as may be shown or directed. Unless otherwise shown on the plan they shall be of vitrified pipe of the quality and dimensions hereinbefore specified for vitrified pipe sewers. They shall be supported and surrounded by concrete as shown, and each shall be closed with an approved cover.

Measurement.

40 192. The lengths of risers to be paid for will be determined by measurements along their axes.

Price to cover.

193. The contract price for risers shall cover the cost of all necessary excavation (except rock); the cost of all concrete

EXHIBIT (*continued*).

used in connection with the risers; the cost of all backfilling; the cost of all covers, bends and specials required; and the cost of all labor and materials required to construct the risers complete in place, as specified.

MANHOLES.

10

194. The masonry or concrete for manholes shall be built to within such distances of the existing surface of the ground as directed.

Brick manholes.

20

195. Brick manholes shall be formed by means of templates placed at top and bottom with not less than 8 lines drawn between them, and they shall be smoothly and evenly plastered on the outside with a layer of mortar $\frac{1}{2}$ -inch thick.

Concrete manholes.

196. Concrete manholes shall be built of the materials, sizes and dimensions shown on the plan.

Steps.

30

197. Galvanized wrought iron steps of the size and shape shown on the plan shall be firmly built into the manholes at vertical intervals, of about 16 inches.

Head and cover.

40

198. The manhole head and cover shall be of cast iron, and unless otherwise shown on the plan, each head, exclusive of cover, shall weigh not less than 500 pounds and each cover shall weigh not less than 160 pounds. The weight of each head and cover shall be conspicuously painted thereon by the manufacturer with white oil paint. The head shall be set on the masonry or concrete in a full bed of stiff mortar.

Price to cover.

199. The contract price for manholes shall cover the cost of all necessary excavation (except rock); of all backfilling; of

EXHIBIT (*continued*).

all plastering; of all concrete slabs; of all steps; and of all labor and materials required to construct the same complete, in place, as shown on the plan and specified.

BASIN MANHOLES.

10

Brick basin manholes.

200. Brick basin manholes shall be formed by means of templets placed at top and bottom with not less than 10 vertical lines drawn between them.

20

201. Where the walls of brick basin manholes are not built of two rings of brickwork with a mortar layer between the inside of the brickwork shall be smoothly and even plastered with a layer of 1-2 Portland cement mortar $\frac{1}{2}$ inch thick.

202. Where the wall of the basin manhole consists of two rings of brickwork, with a mortar layer between, the outer ring shall be carried up not less than 1 foot in advance of the inner ring, and the inner surface of the former shall be plastered with two coats of mortar. The second coat of mortar shall be applied before the first is set, and the total thickness of the mortar layer shall be 1 inch.

30

Concrete basin manholes.

203. Concrete basin manholes shall, if required, be built in such a manner that the bottom and sidewalls shall be formed in one continuous operation. Concrete basins shall be coated with a grout of neat cement on the inside.

Concrete cover slabs.

40

204. Concrete cover slabs of basin manholes shall be built of Class "A" concrete, reinforced as shown on plan.

Head cover and trap.

205. The basin manhole head and cover shall be of cast iron, as shown on plan, and known as a Standard Sidewalk Manhole Head and Cover. Each head exclusive of cover shall weigh

EXHIBIT (*continued*).

not less than 260 pounds and each cover shall weigh not less than 100 pounds. An iron hood or trap, of the size and dimensions shown on the plan, must be furnished by the Contractor for each basin manhole and is to be built into the basin manhole, as shown on plan.

10 Restoration of sidewalks, curbs, etc.

206. All sidewalk pavements and curbs, disturbed by the construction of basin manholes, shall be restored by the Contractor in accordance with the specifications for similar work of the Bureau of Highways.

Price to cover.

20 207. The contract price for basin manholes shall cover the cost of all necessary excavation (except rock); of all back-filling; of all sidewalk and curb restorations and of all labor and materials required to construct the basin manholes complete in place, as shown on the plan and specified.

INLETS.

30 208. Inlets and the heads therefor shall be of the materials, forms and dimensions shown on the plan. The specifications for brickwork and concrete shall be those hereinbefore specified for basin manholes.

Head.

209. The head shall be of cast iron and shall conform in all respects to the specifications for iron castings. If required, the inlets shall be closed with bulkheads of brick masonry and such bulkheads shall be removed when directed.

40 Restoration of roadway, pavements, etc.

210. All roadway pavements, sidewalk pavements and curbs, disturbed by the construction of inlets, shall be restored by the Contractor in accordance with the specifications of the Bureau of Highways for similar work or specifications hereafter attached. In unpaved streets and macadamized streets where

EXHIBIT (*continued*).

the inlets are approximately at the surface of the street a space of two and one-half ($2\frac{1}{2}$) feet adjoining such inlets shall, if required, be paved with approved paving blocks.

Price to cover.

- 10 211. The contract price for inlets shall cover the cost of all necessary excavation (except rock); of all backfilling; of the temporary brick bulkheads in the mouths of the inlets, when required; of all roadway, sidewalk and curb restorations; of all labor and materials required to construct the inlets, complete in place, as shown on the plan and specified.

EMBANKMENT.

- 20 Quality.

214. Where indicated on the plan, embankment shall be made of the form and dimensions shown. It shall consist of clean steam ashes or filling of the quality specified in paragraph 30, which shall contain no stone over 6 inches in its largest dimension. When the material forming the embankment contains stones, the latter shall be so distributed through the mass that all interstices are filled with fine material, and the material within 2 feet of the sewer shall be free of stones. When embankment is used as foundation it shall consist entirely of filling of the quality specified in paragraph 29.
- 30

How made.

215. The embankment shall be deposited and spread in horizontal layers to such an extent and at such times as may be directed. If required, such portion of the embankment as may be deemed necessary shall be made prior to the construction of the sewer or its foundation and any excavation that may be necessary for the building of the sewer and its foundation shall be made therein. When embankment is used as a foundation, the ground on which it is to be made shall be prepared by grubbing and clearing, and removing all improper material. Embankment used as foundation shall be deposited in uniform horizontal layers not exceeding 1 foot in depth, and each layer shall be thoroughly
- 40

EXHIBIT (*continued*).

compacted by rolling or tamping or both; such embankment shall not be built upon until the expiration of days after its completion.

Approaches.

216. Where the embankment obstructs or interferes in any way with any public or private roadway the Contractor shall furnish and place all material necessary to provide suitable approaches, of such widths and to such extent as shown on the plan or as directed.

217. All embankment and approaches shall be maintained at their full dimensions until the completion of this contract.

Cost covered.

218. The cost of all labor and materials required to prepare the ground, to make the embankment and approaches as specified, to make all necessary excavations and backfilling therein, and to maintain the embankments and approaches at their designated dimensions until the completion of this contract, shall be covered by the contract prices for cut and fill. Payment for the embankment shall be made at the unit price for the material measured in place within the prescribed line, no allowance being made for shrinkage, sinkage or settlement.

30

RESTORATION OF SURFACE AND CLEANING UP.

Restoration of unpaved roadways, sidewalks, etc.

219. At such time as may be directed, all unpaved roadways, gutters and sidewalks affected by the work done under this contract shall be restored by the Contractor to the same condition in which they were at the time of the opening of bids for this contract.

40

Pavements, etc., restored by Contractor.

220. If required by the plan, roadway and sidewalk pavements, crosswalks, curbs, etc., shall be satisfactorily restored and adjusted by the Contractor at such times as may be directed.

EXHIBIT (*continued*).

Sidewalk pavements shall be restored in whole flags, squares or sections which shall correspond in quality and appearance with the original or adjoining flags, squares or sections. All work and materials used in such restoration and adjustment shall conform in all respects to the standard specifications now in use by the President for similar work and materials.

10 Temporary restoration.

222. At such times as may be directed roadway and sidewalks, whether under guarantee or not, shall be temporarily restored by the Contractor to the satisfaction of the Engineer. Sidewalk pavements, crosswalks, curbs, etc., which have been removed

When new pavement is laid.

20 223. If pavements, sidewalks, crosswalks, curbs, etc., are laid where none existed at the time the bids for this contract were opened, the Contractor shall excavate and remove such portions of the pavements, sidewalks, crosswalks, curbs, etc., and their foundations as may be necessary for the prosecution of the work, but he will not be required to make a permanent restoration of them.

Trenches flooded.

30 224. Before laying any pavements, sidewalks, crosswalks, curbs, etc., the trenches shall, if required, be flooded with water, as directed, and all resulting holes or depressions shall be filled and tamped solid.

Cleaning up.

40 225. At such times as may be directed the Contractor shall remove from the streets, all materials which were placed thereon by him as a consequence of performing this work and which are not required by the contract to be left as part of the finished work. The entire work and portions of the streets affected thereby shall be left in a satisfactory condition. The sidewalks and crosswalks shall be swept clean of all material which may have come thereon by reason of the work under this contract, and if required, they shall be sprinkled with water during the sweeping.

EXHIBIT (*continued*).

Cost to be covered.

226. The cost of all the labor required to be done and all the materials required to be furnished in the performance of all the work specified in paragraphs 219 to 225 inclusive, shall be covered by all the contract prices for all the items for which there are contract prices.

10

The sheet asphalt on concrete in 94TH STREET, and tarvia macadam in TRAINS MEADOW ROAD, disturbed by this contract are to be relaid by the contractor in accordance with the specifications of the Bureau of Highways and to the satisfaction of the Engineer in charge of that Bureau. See note on plan.

20

30

40

EXHIBIT C-154.

EXHIBIT C-154

(Paper quoting prices on pipe, Oct. 27, 1924).

LETTING MONDAY OCTOBER 27th, 1924.

10 For the construction of a sewer and appurtenances in
Metropolitan Ave., from MT. Olivet Ave. to Sigsbee Place,
Second Ward.

Dear Sir:—

I beg to quote price for Precast Reinforced Concrete Pipe
as follows:

20 30" Precast "Type B" @ \$8.00 per lin. ft.

Pipe to be built in accordance with the specifications;
delivery to be made along the line of work and in Streets ad-
jacent thereto.

TERMS CASH

30 days after delivery.

30 JOHN M. PHILLIPS.

40

EXHIBIT C-26

10

20

EXHIBIT C-26

(Cheques paid to the order of Dame J. Creem assignee of J. M. Phillips and signed: Duit, Inc. by John J. Creem.)

30

40

EXHIBIT C-26 (continued).

DUIT, INC.

No. 101

NEW YORK Nov 5 1924

PAY TO THE ORDER OF David J. Green Assignee of J.M. Phillips \$36,750.00

Thirty six thousand seven hundred and fifty # DOLLARS

PAYABLE THROUGH THE NEW YORK CLEARING HOUSE

DUIT, INC. BY

TO **THE CHASE NATIONAL BANK** OF THE CITY OF NEW YORK
HAMILTON TRUST BRANCH - 101 MONTAGUE ST. BROOKLYN

David J. Green PRESIDENT

*David J. Green
Assignee of J.M. Phillips
David J. Green
100 of Green
David J. Green
David J. Green*

RECEIVED
THE CHASE NATIONAL BANK
HAMILTON TRUST BRANCH
101 MONTAGUE ST.
BROOKLYN, N.Y.

of State N. Y. v. Holt's John
PLAINTIFF'S EXHIBIT 226
DEFENDANT'S EXHIBIT
DATE 1-27-31 CLERK [Signature]
RECEIVED PAYMENT
NOV 5 1924
THE CHASE NATIONAL BANK
HAMILTON TRUST BRANCH

EXHIBIT C-26 (continued).

DUT, INC.

No. 205

NEW YORK *Jan'y 21 1925*

PAY TO THE ORDER OF *David J. Green, assignee of J. M. Phillips* **\$28,000⁰⁰/₁₀₀**

Twenty eight thousand & no/100

PAYABLE THROUGH THE NEW YORK CLEARING HOUSE

TO THE CHASE NATIONAL BANK 1-74 H

OF THE CITY OF NEW YORK
HAMILTON TRUST BRANCH - 191 MONTAGUE ST., BROOKLYN

DUT, INC.
BY *David J. Green*
PRESIDENT

*David J. Green
Assignee of
J. M. Phillips
David J. Green*

4732
1410

People of State N. Y. v. Heirs John Phillips
 PLAINTIFFS EXHIBIT C26
 DEFENDANT'S EXHIBIT _____
 DATE 1-27-31 CLERK LaR

EXHIBIT C-26 (continued).

No. 307

DUIT, INC.

NEW YORK *June 9 1925*

PAY TO THE ORDER OF *Paul J. Green, Assignee of J. M. Phillips* \$ 17,500⁰⁰

Seventeen thousand five hundred & no/100 DOLLARS

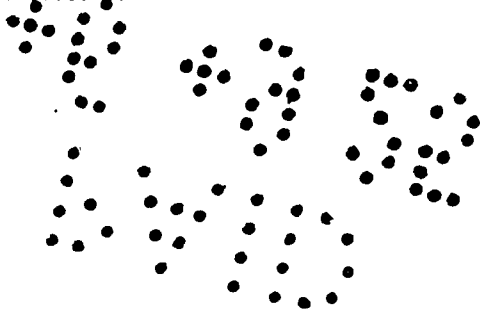
PAYABLE THROUGH THE NEW YORK CLEARING HOUSE

TO THE CHASE NATIONAL BANK 1-74 H

OF THE CITY OF NEW YORK
HAMILTON TRUST BRANCH - 191 MONTAGUE ST., BROOKLYN

DUIT, INC.
BY *A. L. O. Green*
PRESIDENT

*Paul J. Green
Assignee of J. M. Phillips
Paul J. Green*



People of State N. Y. v. Heirs John Phillips
 PLAINTIFF'S EXHIBIT C26
 DEFENDANT'S EXHIBIT _____
 DATE 1-27-31 CLERK Cal

BLOCK

EXHIBIT C-26 (continued).

DUI, INC.

No. 373

NEW YORK *Aug 20 1925*

PAY TO THE ORDER OF *David J. Green assignee of J. W. Phillips* \$15,000⁰⁰/₁₀₀

Fifteen thousand and #

DOLLARS

PAYABLE THROUGH THE NEW YORK CLEARING HOUSE

TO **THE CHASE NATIONAL BANK** 1-74 H

OF THE CITY OF NEW YORK

HAMILTON TRUST BRANCH - 191 MONTAGUE ST. BROOKLYN

DUI, INC.
BY *David J. Green*
PRESIDENT

*David J. Green
assignee of J. W. Phillips
Deposit
David J. Green*

DUI, INC.

People of State N. Y. v. Heirs John Phillip
 PRESIDENT
 PLAINTIFF'S EXHIBIT *CR*
 DEFENDANT'S EXHIBIT _____
 DATE *1-27-31* CLERK *Las*

[Handwritten signature]

Block

EXHIBIT C-26 (continued).

DUIT, INC.

No. 415

NEW YORK Oct 8 1925

PAY TO THE ORDER OF

Daniel J. Green manager of J.M. Phillips \$19,000⁰⁰

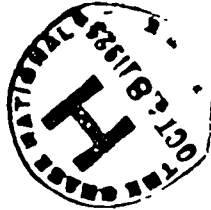
Nineteen thousand and 00/100 DOLLARS

PAYABLE THROUGH THE NEW YORK CLEARING HOUSE

TO THE CHASE NATIONAL BANK OF THE CITY OF NEW YORK HAMILTON TRUST BRANCH - 191 MONTAGUE ST., BROOKLYN

DUIT, INC. BY Daniel J. Green PRESIDENT

Daniel J. Green
Manager of J.M. Phillips
Daniel J. Green



People of State N. Y. v. Heirs John PH
PLAINTIFF'S EXHIBIT C 26
DEFENDANT'S EXHIBIT
DATE 1-27-31 CLERK [Signature]

EXHIBIT C-26 (continued).

No. 459

DUIT, INC.

NEW YORK DEC 4 1925

PAY TO THE ORDER OF

David F. Green assignee of J.M. Phelps 8350#
Eight thousand three hundred fifty #

DOLLARS

PAYABLE THROUGH THE NEW YORK CLEARING HOUSE

DUIT, INC.
BY

TO THE CHASE NATIONAL BANK H

OF THE CITY OF NEW YORK
HAMILTON TRUST BRANCH - 191 MONTAGUE ST., BROOKLYN

John F. Green
PRESIDENT

David F. Green
Assignee of J.M. Phelps
Report
David F. Green

8350#

People of State N. Y. v. Heirs John F

PLAINTIFF'S EXHIBIT C-26

DEFENDANT'S EXHIBIT

DATE 1-27-31 CLERK lal



EXHIBIT C-223.

EXHIBIT C-223.

(Contract for pipe on Broadway Ave. between Philipps and Paino, November 5, 1924.)

10

JOHN M. PHILLIPS
333 Freeman Ave.
LONG ISLAND CITY, N. Y.

MR. ANGELO PAINO,
32 COURT STREET,
BROOKLYN, N. Y.

Dear Sir:

20

I beg to quote you "Lock Joint" Reinforced Concrete Pipe the following prices per lineal foot, and upon the following terms and conditions:

Pipe to be used for the construction of a sewer in BROADWAY from ST. JAMES PLACE to ELMHURST AVE.; ELMHURST AVE. from BROADWAY to ROOSEVELT AVE.; ROOSEVELT AVE. from ELMHURST AVE. to 35th ST., SECOND WARD, BOROUGH OF QUEENS.

30

273' - 66" Precast "Type B" @ \$25.00 per Lin. Ft.	6,825.00
2745' - 54" " " " " \$22.00 " " "	60,390.00
20' - 45" " " " " \$13.00 " " "	260.00
184' - 36" " " " " \$10.00 " " "	1,840.00
260' - 33" " " " " \$ 8.50 " " "	2,210.00
	<hr/>
	71,525.00

40

DELIVERY

The pipe is to be manufactured along the entire line of work and turned over on their sides, at the point of manufacture, where the delivery is to be taken by you.

EXHIBIT C-223 (continued).

QUALITY.

10 I agree that when the pipe is delivered it shall be acceptable to the Engineer in Charge and meet the requirements of the plans and specifications for the above work.

SEALING FORMS

20 I agree to lend you sealing forms for making joints between pipes, and it is agreed that the value of these forms are as follows: 66" - \$6.50 each, 54" - \$6.50 each, 45" - \$6.50 each, 36" - \$6.50 each, 33" - \$6.50 each. In case of loss of, or injury or damage to forms, or in case of failure to return same, they shall be paid for by you at the above prices.

TERMS.

30 All pipe laid by you shall be paid for in full immediately after you have received payment. It is further agreed that in addition to the above, you shall pay for all pipe, whether laid or not, upon which advance payments have been made to you. It is understood and agreed that the title to all pipe shall remain in JOHN M. PHILLIPS until paid for in full, in cash.

It is understood and agreed that you are not to assign any payment or payments, for moneys due or to become due, without my written consent.

40 You are further to be responsible for any injury to pipe belonging to me, but delivered to you for use upon the work, and you shall keep the pipe properly lighted in accordance with local ordinances. Should your work be abandoned, payment for all pipe manufactured on this contract shall be immediately due and payable.

Each and every one of the foregoing terms is of the essence of this contract.

EXHIBIT C-223 (*continued*).

QUANTITIES.

10 The prices herein are based upon the quantities above written, but these quantities may be changed by written notice to me, provided such notice is given in ample time, while I am engaged in the manufacture of pipe for this contract. In the absence of any further instructions from you in writing, I will manufacture for you the above quantities which shall be paid for and no claim shall be made on me for any shortage or excess quantity.

20 It is understood that I will be allowed a reasonable time for the beginning of delivery, and that I will not be responsible on account of delays caused by floods, fires, strikes, or any accidents beyond my control, failures of carriers, or unavoidable delays otherwise occasioned which may interfere with my making delivery.

This agreement to be binding upon the heirs, successors or assigns of both parties.

JOHN M. PHILLIPS.

We hereby accept the above proposition and agree to its terms and conditions.

30 Dated Nov. 5, 1924.

ANGELO PAINO.

EXHIBIT C-223 (continued).

LOCK-JOINT PIPE

JOHN M. PHILLIPS

P. O. Box 75

10 Long Island City, N. Y.

Yard:
Maurice Ave. & Broadway
Elmhurst, Queens Co., N. Y.
Phone 2170 Newtown
1588 Hunterspoint

Sept. 28th, 1925.

20 Mr. Angelo Paino,
32 Court Street,
Brooklyn, N. Y.

To Precast Reinforced Concrete Pipe delivered for sewer
in Broadway from St. James Place, Etc., SECOND WARD,
BORO OF QUEENS.

	8	248	256 - 66"	@ \$25.00 per Lin. Ft.	\$ 6,400.00
	20	2,592	2,612' - 54"	@ \$22.00 per Lin. Ft.	\$57,464.00
30		20	20' - 45"	@ \$13.00 per Lin. Ft.	\$ 260.00
		180	180' - 36"	@ \$10.00 per Lin. Ft.	\$ 1,800.00
36		212	248' - 33"	@ \$ 8.00 per Lin. Ft.	\$ 2,108.00

\$68,032.00

	May 19th. 1925 Rec'd. on A/C	\$ 6,250.00
	July 13th. 1925 Rec'd on A/C	\$23,000.00
	Aug. 13th. 1925 Rec'd on A/C	\$30,852.00
	Sept. 26th. 1925 Rec'd on A/C	\$ 6,984.00

\$67,086.00

40

		BALANCE	\$ 946.00
	Dec. 24th. 1925 Rec'd ch.	\$ 946.00	

I must insist that this account be paid in full immediately.
J. 34

EXHIBIT C-131.

EXHIBIT C-131.

(Contract between The City of New York and Kennedy & Smith, Inc., for the construction of a sewer and appurtenances in Saull Street from Blossom Avenue to Cherry Avenue, Cherry Avenue from Saull Street to Colden Avenue, Colden Avenue from Cherry Avenue to Laburnum Avenue, Laburnum Avenue from Colden Avenue to Kissen Boulevard, (Jamaica Avenue), Third Ward, Borough of Queens, on Nov. 15, 1924.)

ANNEXES TO CONTRACT

20 THE CITY OF NEW YORK — DEPARTMENT OF FINANCE
Office of the Comptroller

CONTRACT SUMMARY

Contractor KENNEDY & SMITH, INC. No. 72443

30 Names of sureties Fidelity & Deposit Co. of Maryland, \$50,000.
U. S. Fidelity & Guaranty Co., \$50,000.
Eagle Indemnity Co., \$50,000.

Amount of bond \$150,000.

Date of award Nov. 3, 1924 Department Pres. Borough of Queens

40 Date of contract Nov. 15, 1924 Date paid in full 7-28-26

DESCRIPTION OF WORK

For the construction of a sewer and appurtenances in Saull Street from Blossom Avenue to Cherry Avenue; Cherry Avenue

EXHIBIT C-131 (continued).

from Saull Street to Colden Avenue; Colden Avenue from Cherry Avenue to Laburnum Avenue; Laburnum Avenue from Colden Avenue to Kissen Boulevard (Jamaica Avenue), Third Ward, Borough of Queens.

	Original estimate, \$237,150.00
10	A. E. 35,440.59
	<hr/>
	\$272,590.59
	R. E. 5,270.00
	<hr/>
	\$267,320.59

ACCOUNTS TO BE CHARGED.

20 C. F. M. 25

The obligation on this surety bond ceases as to anything occurring after July 13th, 1926.

If the conditions of the contract have been complied with, the retained percentage (if any) is due on or after July 13th, 1926.

30 GEORGE W. MORTON,
Examiner.

ORIGINAL ESTIMATE, ADDITIONS and ;REDUCTIONS

	City No.	Amount
40	CFM 25	237,150.00
	AE	1,202.00
	"	18,903.59
	"	15,335.00
		<hr/>
		272,590.59

EXHIBIT C-131 (continued).

PAYMENTS, AMOUNTS RETAINED AND EARNED

	Date ... %	Payments	Amount paid to date	Amount retained to date	Amount earned to date
	1- 9-25	56,130.60	56,130.60	9,905.40	66,036.00
10	9- 4-25	9,905.40	66,036.00		66,036.00
		Pursuant to Chap. 394, Laws of 1921			
	3- 2-25	41,768.15	107,804.15	7,370.85	115,175.00
		Pursuant to Chap. 394, Laws of 1921			
	3-23-25	7,370.85	115,175.00		
	4-17-25	24,521.65	139,696.65	4,327.35	144,024.00
	5-14-25	13,763.20	153,459.85	6,756.15	160,216.00
20		Pursuant to Chap. 394, Laws of 1921			
	6- 8-25	6,756.15	160,216.00		
	6-18-25	25,119.62	185,335.62	4,432.88	189,768.50
	7-24-25	23,870.12	209,205.74	8,645.26	217,851.00
	8-27-25	17,425.86	226,631.60	11,720.40	238,352.00
	10- 2-25	5,270.00	Suspense a/c T. 2		
		7,764.75	239,666.35	14,020.65	253,687.00
30	2- 2-26	3,510.50	243,176.85	14,640.15	757,817.00
		243,176.85	243,176.85	14,640.15	257,867.00
	6-23-26	28,458.93	271,635.78	954.81	272,590.59
	7- 9-26	954.81	272,590.59		272,590.59
	6-23-26	23,188.93	266,365.78	954.81	267,320.59
	6- 9-26	954.81	267,320.59		
		<u>267,320.59</u>			

IN FULL 5,270

40

*5,270# paid Contractor per Mise voucher

#39,799 received Feb. 11, 1926.

V Contractor has refunded by check the sum of \$5,270 which was overcertified in final payment. Same has been deposited to asst CFM 25.

Pencil figures show correction.

E. J. S. 8-27-26.

EXHIBIT C-131 (continued).

CONTRACT #72443
KENNEDY & SMITH, INC.

Date	Retained percent- age payments by City	Corporate stock & substituted	Corporate stock released	Date
1925				
10 Feb. 11	\$9,905.40	\$10,000.00	7/23/26	24,000
April 2	7,370.85	7,300.00	IN FULL	
June 16	6,756.15	6,700.00	E.J.S.	
	24,032.40	24,000.00		

RESOLUTION.

20 BOARD OF ESTIMATE AND APPORTIONMENT.

(Cal. No. 539)

30 WHEREAS, The President of the Borough of Queens has transmitted to the Board of Estimate and Apportionment a copy of a resolution of the Local Board of the Jamaica District, duly adopted by said Board on the 6th day of December, 1923, and approved by the Acting President of the Borough of Queens on the 28th day of December, 1923, as follows, to wit:

RESOLVED, That this Board does hereby initiate proceedings for the said local improvements, to wit :

40 "For the construction of a sewer and appurtenances in Saull street from Blossom avenue to Cherry avenue; Cherry avenue from Saull street to Colden avenue; Colden avenue from Cherry avenue to Laburnum avenue; Laburnum avenue from Colden avenue to Kissent boulevard (Jamaica avenue), Third Ward,"

and which resolution is accompanied with an approximate estimate of the cost of work and the assessed value of the property benefited.

EXHIBIT C-131 (*continued*).

10 RESOLVED, That the Board of Estimate and Apportionment hereby authorizes the President of the Borough of Queens to prepare plans, specifications and an estimate of cost based on actual survey, and also to secure a determination of the boundary of the district of assessment; the entire expense of the work done subsequent to the date of this authorization to be charged against the Street Improvement fund and later included in the assessment.

20 RESOLVED, That the Board of Estimate and Apportionment will consider the authorization of the construction of the said proposed improvement after the President of the Borough of Queens has submitted a statement showing that all of the above described work has been done, that he has secured the approval of the form of contract by the Corporation Counsel, that he is prepared to place the improvement under contract as soon as he receives the consent of the Board, and that the assessment may will be completed on or before the date of payment on acceptance; this report being accompanied by a further statement showing the quantity of work to be performed under each item and the unit price thereof, the expense incurred for preliminary work, the allowance to be made for additional engineering and contingencies, the total probable cost, and the number of working days to be allowed the contractor for carrying out the work.

30 A true copy of a resolution adopted by the Board of Estimate and Apportionment.

JUNE 27, 1924.

(signed) JAMES MATTHEWS

Assistant Secretary,

EXHIBIT C-131 (*continued*).

BOARD OF ESTIMATE AND APPORTIONMENT.

CITY OF NEW YORK

(Cal. No. 129)

10

A copy of a resolution of the Local Board of the Jamaica District, duly adopted by said Board on the 6th day of December, 1923, and approved by the Acting President of the Borough of Queens on the 28th day of December, 1923, having been transmitted to the Board of Estimate and Apportionment, as follows, to wit:

20 RESOLVED, That this Board does hereby initiate proceedings for the said local improvement, to wit :

“For the construction of a sewer and appurtenances in Saull street from Blossom avenue to Cherry avenue; Cherry avenue from Saull street to Colden avenue; Colden avenue from Cherry avenue to Laburnum avenue; Laburnum avenue from Colden avenue to Kissena boulevard (Jamaica avenue), Third Ward.”

30 — and thereupon, on the 27th day of June, 1924, resolutions having been adopted by the Board of Estimate and Apportionment authorizing the President of the Borough of Queens to prepare the necessary plans, specifications and an estimate of the cost of the proposed improvement based on actual survey and further resolving that the Board of Estimate and Apportionment will consider the authorization of the construction of the proposed improvement after the President of the Borough of Queens had submitted certain statements as provided in the said resolution, and the said resolution having been duly complied with by the President of the Borough of Queens, as appears
40 by papers and documents on the files of the Board of Estimate and Apportionment, and there having been presented to the Board of Estimate and Apportionment an estimate in writing in such detail as the Board has directed that the cost of the proposed work or improvement, together with the preliminary expenses, will be the sum of \$326,000; and a statement of the assessed value according to the last preceding tax roll of the

EXHIBIT C-131 (*continued*).

real estate included within the probable area of assessment, to wit, the sum of \$18,750,830, having been presented; it is

10 Resolved, That the said resolution of the Local Board be and the same is hereby approved and the construction of the local improvement therein provided for is hereby authorized. This Board does hereby determine that no portion of the cost and expense thereof shall be borne and paid by The City of New York, but that the whole of such cost and expense, including the aforesaid preliminary expenses, shall be assessed upon the property deemed to be benefited by the said local improvement.

A true copy of resolution adopted by the Board of Estimate and Apportionment, October 17, 1924.

JAMES MATTHEWS,

20

Assistant Secretary.

30

40

EXHIBIT C-131 (continued).

Contract No. 72443

THE CITY OF NEW YORK

ADVICE OF AWARD OF CONTRACT

10 (This Copy to be retained by Bookkeeping Division,
Department of Finance).

Dep't of President of the Borough of Queens.

*Date Nov. 3, 1924

Comptroller of The City of New York:

Please take notice that the following described contract
has this day* been awarded to Kennedy & Smith, Inc.,

20 Address Bradford Avenue & Henry Street, Flushing, N. Y.

Sureties. Fidelity & Deposit Co. of Maryland	50,000
United States Fidelity & Guaranty Co.	50,000
Eagle Indemnity Co.	50,000
Amt. of bond \$150,000.00	

DETAILS OF PURPOSE OF CONTRACT

30 For the construction of a sewer and appurtenances in
Saul Street from Blossom Avenue to Cherry Avenue; Cherry
Avenue from Saul Street to Colden Avenue; Colden Avenue from
Cherry Avenue to Laburnum Avenue; Laburnum Avenue from
Colden Avenue to Kissena Boulevard (Jamaica Avenue), Third
Ward, Borough of Queens.

40 TYPE B

Contract Chargeable to Code No.	Estimated Amount	Contracts Previously Awarded (Including Adjustments)	Open Market Orders Issued To Date (Including Adjustments)	Misc. Vouchers, Payrolls, and Order Charges
CFM 25	\$237,150.00	\$3,926,089.96	\$14,403.39	\$563,078.68

EXHIBIT C-131 (*continued*).

Enter full titles of accounts below and refer to code numbers by means of line numbers in margin.

Street Improvement Fund

Your respectfully,

10

MAURICE E. CONNOLLY,

Acting President of the Borough of Queens.
Head of Dept.

* This will be the date of the entry by which the fund is charged with the estimate amount of the contract both in the department making the award and by the Department of Finance. There must therefore be no delay in forwarding this advice.

20

30

40

EXHIBIT C-131 (*continued*).

Office of

THE PRESIDENT OF THE BOROUGH OF QUEENS

Long Island City

10 Maurice E. Connolly,
President.

November 24, 1924.

Honorable Charles L. Craig,
Comptroller, City of New York.

Dear Sir:

Herewith I forward for registration in the Department of
Finance copy of the following contract:

20 For the construction of a sewer and appurtenances in
Saul Street from Blossom Avenue to Cherry Avenue; Cherry
Avenue from Saul Street to Colden Avenue; Colden Avenue
from Cherry Avenue to Laburnum Avenue; Laburnum Avenue
from Colden Avenue to Kissena Boulevard (Jamaica Avenue),
Third Ward, Borough of Queens.

Very truly yours,

30 MAURICE E. CONNOLLY,
President of the Borough of Queens.

Enclosure

40

EXHIBIT C-131 (*continued*).

CITY OF NEW YORK

Office of

Maurice E. Connolly,
President.

10 Michael J. Shugrue,
Borough Secretary.

Long Island City, December 1, 1924.

Charles L. Craig, Comptroller,
City of New York.

Sir:—

20 Referring to contract, No. 72443:—

“For the construction of a sewer and appurtenances in Saull Street from Blossom Avenue to Cherry Avenue; Cherry Avenue from Saull Street to Colden Avenue; Colden Avenue from Cherry Avenue to Laburnum Avenue; Laburnum Avenue from Colden Avenue to Kissena Boulevard (Jamaica Avenue), Third Ward,”

30 I beg to inform you that the contractor, Kennedy & Smith, Inc., Bradford Avenue & Henry Street, Flushing, L. I., N. Y., has been ordered to commence the work embraced in said contract within seven days after the service, by mail or otherwise, of the notice, irrespective of the date of same.

Yours very truly,

MAURICE E. CONNOLLY,

President of the Borough of Queens.

40 JJR-PJH

THE NOTICE TO CONTRACTOR WAS MAILED Dec.
10, 1924.

EXHIBIT C-131 (continued).

ENGINEERING.

October 20, 1925.

Mr. Chandler Withington,
Chief Engineer.

Sir:—

10

Relative to Certificate No. 8, Tickler No. 142821, in the sum of \$13,034.75, for the construction of sewer in Saull St., from Blossom Ave. to Cherry Ave., etc., in the Borough of Queens. Kennedy & Smith, Inc., Contractor, Contract No. 72443, I report:

The quantities of work enumerated in the estimate are correct, but I would direct your attention to the following:

20

The contract drawing provides for an embankment 30 feet in width over the sewer. I am informed by the Borough Authorities, that the property owners were dissatisfied with a 30 foot roadway over the sewer and requested that the street be graded to its full width of 60 feet. In my opinion, it is a question if this additional grading can be performed under the terms of the contract and be made a contract payment. The contract is very specific as to the width of the embankment and any work done outside of said limits is, in my opinion, work outside of the scope of this contract.

30

Taking the quantities as given in the estimate, I estimate the following for the work performed outside of the limits of the contract.

Fill — Total allowed	35,000 cu. yds.	
Within 30 ft. roadway	24,000 " "	11,000 cu. yds.
Cut — Total allowed	4,000 " "	
Within 30 ft. roadway	3,000 " "	700 " "

40

At the contract prices the amount allowed for said work is \$6,200.00, computed, as follows:

11,000 cu. yds. Fill @	\$.50	\$5,500.00
700 cu. yds. Cut @	1.00	700.00
		<hr/>
		\$6,200.00

EXHIBIT C-131 (*continued*).

As the question raised is legal, it is recommended that the Corporation Counsel be requested to advise this office if the City can properly make a contract payment for the extra or additional fill and cut beyond the limits of the width of roadway definitely noted on the contract plans. Pending the receipt of said opinion, it is further recommended that the net amount (85% of \$6,200.) \$5,270.00, be placed in the "Suspense Account", and the balance, 10 \$7,764.75, paid on account of the contract.

Respectfully,

Assistant Engineer.

20

30

40

EXHIBIT C-131 (*continued*).

FOR CONTRACT DIVISION

PLK-H

Audit 142821

November 2, 1925.

10 re — Contract 72443 with Kennedy & Smith, Inc. and voucher
for \$13,034.75

Hon. George P. Nicholson,
Corporation Counsel.

Sir:

20 Inclosed herewith please find contract 72443 with Kennedy
& Smith, Inc. for the construction of a sewer and appurtenances
in Saull Street, Cherry Avenue and other streets, Borough of
Queens, together with a voucher in the sum of \$13,034.75 re-
presenting the eighth partial estimate under the contract.

30 Attached to the voucher is a report made by the Division of
Engineering, Department of Finance, from which it appears that
the contract drawing provides for an embankment 30 feet in
width over the sewer. At the request of the abutting property
owners the street was graded to its full width of 60 feet and the
sum of \$6,200 is included in the within estimate for the extra
or additional fill and cut beyond the limits of the width of the
roadway as noted on the contract plans

Kindly advise the Comptroller whether any payment may
be made under the contract for the extra or additional fill and
cut beyond the limits of the width of the roadway as shown on
the plans

Yours truly,

Deputy Comptroller.

40 Encls.

EXHIBIT C-131 (*continued*).

PLK-N

Audit

November 28, 1925,

Hon. Maurice E. Connolly,
President, Borough of Queens.

10 Sir:

On October 2, 1925, you filed a voucher in favor of Kennedy & Smith, Inc. for the sum of \$13,034.75 being the eighth estimate under Contract 72443 for the construction of a sewer and appurtenances in Saull Street, Borough of Queens.

20 The contract drawings provide for an embankment 30 feet in width over the sewer but at the request of the abutting property owners the street was graded to its full width of 60 feet and the sum of \$6,200 was included in the estimate for the extra or additional fill and cut beyond the limits of the width of the roadway as shown on the contract plans.

30 I transmit herewith a copy of opinion of the Corporation Counsel written by him to the Comptroller under date of November 20, 1925, in which he advised that the said sum of \$6,200 is clearly for extra and additional work not governed by the contract terms and that said item should therefore be disallowed in the partial estimate.

The contract record in your office should therefore be corrected by reducing the earnings under the contract by the sum of \$6,200 and by also reducing the amount withheld as retained percentage by the sum of \$930.00.

Yours truly,

Deputy Comptroller.

40 Enc.

EXHIBIT C-131 (*continued*).

CITY OF NEW YORK

Office of

THE PRESIDENT OF THE BOROUGH OF QUEENS

10 Maurice E. Connolly,
President.

Bernard M. Patten,
Secretary to President.

Long Island City, December 30, 1925.

Honorable Charles L. Craig,
Comptroller City of New York.

20 Dear Sir:

Under date of November 28th I am in receipt of a letter from Mr. Frank P. Prial, Deputy Comptroller, relative to a contract for construction of a sewer in Saull Street, Cherry Avenue, &c., awarded to Kennedy & Smith. This letter reads:

30 "On October 5, 1925, you filed a voucher in favor of Awixa Corporation being payment on completion and acceptance of the work under Contract 66683 for the construction of a sewer and appurtenances in 25th Street from Ditmars Avenue to Patterson Avenue, Second Ward, Borough of Queens, in which was included an item of \$11,194.00 for extra fill beyond the limit of the width of the roadway as shown on the contract plan.

40 "In its action on the voucher this office will be governed by the opinion of the Corporation Counsel in the matter of Kennedy & Smith, Inc., a copy of which was transmitted to you under even date."

A copy of the opinion of the Corporation Counsel under date of November 20, 1925 relative to Contract 72443 between Kennedy & Smith and The City of New York is attached. This opinion states:

EXHIBIT C-131 (*continued*).

"It does not appear that paragraph VIII of the contract was complied with in respect to authorizing the performance of this additional or extra work and under the circumstances, payment cannot be allowed therefor under the contract."

10 I am now in receipt of a report from Mr. J. Franklin Perrine, Engineer of Sewers, in reference to this matter. This report reads:

"In reference to attached communication from Mr. F. J. Prial, Deputy Comptroller, pertaining to additional fill in connection with the construction of a sewer in Saull Street, Cherry Avenue, etc., Kennedy & Smith, Inc., Contractor:

20 "The original contract called for a grading of Saull Street to the established grade and for a partial width of 30 feet directly over the line of the sewer. The amount of fill was very considerable and at one place was about 18 feet high. There were houses constructed for a number of years on either side of Saull Street. In some cases, this fill was as high as the roof of the houses and blocked egress to the property. The property owners protested to the Board of Assessors and the matter was taken up with us by the Board of Assessors.

30 "Mr. Ormond, President of the Board of Assessors, visited the site of the work with me and, after discussing the matter, decided it would be well to have the contractor fill to the entire width of the street and to established grade. By so doing, he could award the full damages due to the grade change to the property owners affected. A written order by you was given to the contractor to do this extra work, in accordance with paragraph VIII of the Contract and Specifications. The Corporation Counsel on this and other similar contracts informally advised me
40 that this could properly be done. The communication from Mr. Prial now states and he transmits the formal opinion of the Corporation Counsel, saying that this phase of the contract has not been complied with, and they have deducted the sum of \$6,200 from the contractor's payment.

EXHIBIT C-131 (*continued*).

“Paragraph VIII states:

10 “No claim for additional work or materials shall be made by or allowed to the Contractor, unless before the performance of such additional work the President shall have first authorized the same in writing, and the same shall have been done or furnished under written order from the President, given before the performance of such additional work or the furnishing of such additional materials. The aggregate price to be paid for additional work or materials so authorized or ordered shall not exceed five (5) per cent, of the contract or the total cost of the work and materials.”

20 “In this particular contract a price was fixed for both cut and fill and the amount of both cut and fill, as advertised in the advertisement, are known to be indeterminate and, in the case of indeterminate quantities, we have always understood that the Borough President was allowed some latitude in increasing or decreasing these items, as conditions encountered during the progress of the work warranted.

30 “I do not believe that the Corporation Counsel was made fully acquainted with all the facts in this case and, for that reason, I believe that he rendered the opinion, as noted. In my opinion, the provisions of paragraph VIII were complied with and the contractor is entitled to full payment for the amount of work, which he did, upon an order issued in the regular form by you.”

The question seems to be wholly relative to Paragraph VIII which specifies the manner in which the City may become obligated for any extra work required of the contractor.

40 Under date of June 29, 1925, in consonance with the provisions of Paragraph VIII of the contract I sent to Kennedy & Smith the following letter:

“In connection with your contract:

For constructing sewer, etc. in SAULL ST., BLOSSOM AVE., CHERRY AVE., COLDEN AVE., etc., Third Ward

EXHIBIT C-131 (*continued*).

10 a condition has developed in connection with the placing of the embankment, which makes it necessary to increase the width, where the embankment is to be placed on Colden Avenue, and also with the cut on Colden Avenue at the upper end near Holly, Juniper and Kalmia Avenues. The people along this street have filed a claim for damages, as a result of the fill, and it has been recommended by the Board of Assessors that fill be placed for practically the entire width, which will enable them to pay these people the full damages due to the grading of the street for the full width and to the established grade.

20 "The people, likewise, on Cherry Avenue, just south of Colden Avenue, have requested that this street be graded to the full width instead of a partial width, as called for on the contract plan, in order that they may also improve their property to the final condition.

"You will, therefore, do the grading on the streets mentioned, as directed by the engineer-in-charge of the work, for which you will be paid at the price submitted in your bid for this work.

30 "In connection with the above work, you will also place suitable ramps at the intersecting streets and to otherwise do the grading, so that the streets are left in a useable condition, and also make proper provision to take care of the surplus water."

Apparently the Corporation Counsel when he rendered this opinion was not acquainted with the fact that this letter had been sent to the Contractor and it may be that it escaped the attention of Mr. Prial.

40 I trust that you will cause a re-examination of the contract to be made as it appears to me that all the provisions of the contract were complied with and that the contractor is entitled to the payment of \$6,200 which in accordance with the opinion of the Corporation Counsel is rendered apparently without knowledge of the complete facts, should be allowed.

Very truly yours,

MAURICE E. CONNOLLY,
President of the Borough of Queens.

MEC-LL

EXHIBIT C-131 (*continued*).

COPY

CITY OF NEW YORK

Law Department

10 OFFICE OF THE CORPORATION COUNSEL

New York, January 30, 1926.

George P. Nicholson,
Corporation Counsel.

Hon. Charles W. Berry,
Comptroller.

20

Sir:

I am in receipt of a communication dated January 6, 1926, signed by F. J. Prial, Deputy Comptroller, which reads as follows:

30

“Under date of November 2, 1925, this office transmitted to you contract 72443 with Kennedy & Smith, Inc. for the construction of a sewer in Saull Street, etc. Borough of Queens, and requested that you advise the Comptroller whether any payment may be made under the contract for extra or additional fill and cut beyond the the limits of the width of the roadway as shown on the contract plans.

40

In your reply of November 20, 1925, you stated that the item amounting to \$6,200 included in the eighth estimate under the contract was clearly for extra and additional work not covered by the contract terms and that it did not appear that Paragraph VIII of the contract had been complied with. You therefore advised that the said item amounting to \$6,200 be disallowed.

I return herewith the said contract #72443 together with a communication from the President, Borough of Queens dated December 30, 1925 in which he quotes a letter

EXHIBIT C-131 (*continued*).

CITY OF NEW YORK

Office of

THE PRESIDENT OF THE BOROUGH OF QUEENS

10 Maurice E. Connolly,
President

Mary C. Hendrickson,
Secretary to President

Long Island City, April 7, 1926.

20 Hon. Chas. W. Berry, Comptroller,
Department of Finance,
Municipal Building,
New York City, N. Y.

Dear Sir:—

In accordance with the recommendation of the Engineer of Sewers, this Department, I have granted an extension of time of thirty-three (33) days, to Kennedy & Smith, Inc., Bradford Ave & Henry St., Flushing, N. Y., in which to complete the work in connection with Contract No. 72443.

30 "For constructing sewer and appurtenances in SAULL STREET, from Blossom Avenue to Cherry Avenue, etc., 3rd Ward."

40 This contract called for a partial fill over the sewer, but after the work was under way it was decided that it would be necessary to grade the street to the establisher grade and to the full width. This necessitated depositing 15,481 cubic yards of fill in excess of that contemplated on the original contract, and this caused the contractor to be slightly delayed; and it is for the above reasons that an extension of time was granted.

Very truly yours,

MAURICE E. CONNOLLY,
President of the Borough of Queens.

JK

EXHIBIT C-131 (continued).

THE CITY OF NEW YORK

Certificate to Release Securities Deposited with the Comptroller
in Lieu of Retained Percentages, pursuant to Chapter 394
of the Laws of 1921 as Amended

10 Department Pres's. Boro. Queens. Contract No. 72443
Eng'g. — Construction — (Sewers)

Contractor Kennedy & Smith, Inc.

Date of Completion and Acceptance of Work March 20, 1926

20 Description of Work Sewer &c. SAULL ST. from Blossom Ave.
to Cherry Ave.; CHERRY AVE. from Saull St. to Colden
Ave.; COLDEN AVE. from Cherry Ave. to Laburnum Ave.
& in LABURNUM AVE. from Colden Ave. to Kissena
Bvd (Jamaica Ave.), Third Ward.

Amount Due on Completion of contract, \$24,032.40

CERTIFICATES TO BE SIGNED BY COMPETENT
PERSONS COGNIZANT OF THE FACTS.

30 I HEREBY CERTIFY that I have examined the work
above named and find it in good order and in conformity with
the contract and specifications thereof, and that the period of
guarantee for which the above amount was retained has expired.

Date: March 20th, 1926.

ANDREW JOHNSON,

Acting Highway Engineer.

40 I HEREBY CERIFY that the contractor is entitled to the
return of such securities as may have been deposited with the
Comptroller to cover the sum of \$24,032.40 retained percentage
which became due on March 20th, 1926.

Date: May 18th, 1926

J. FRANKLIN PERRINE,

All computations verified.

Engineer of Sewers.

EXHIBIT C-131 (continued).

.....

Clerk.

CERTIFICATE TO BE SIGNED BY THE HEAD
OF DEPARTMENT.

10

I HEREBY CERTIFY: Upon the information contained in the certificates hereto attached by persons severally designated by me to make such certificates and whose signatures thereto are known by me to be genuine, and to the best of my knowledge, information and belief, that the work has been maintained as required by the contract and is now in good condition; I further certify that the retained amount as set as required by the contract and is now in good condition; I further certify that the retained amount as set forth herein is now due and that any securities that may have been deposited in lieu thereof may be released.

20

Date: June 26, 1926

.....,

Acting President, Borough of Queens.

J. J. M. MALLY, Clerk.

L. C. CONNOLLY, Auditor.

30

Approved for release of security to the par value of \$24,000.

.....

Auditor of Accounting.

7/22/26.

40

EXHIBIT C-131 (*continued*).

CITY OF NEW YORK

Office of

THE PRESIDENT OF THE BOROUGH OF QUEENS

10 Maurice E. Connolly,
President

Charles H. Schroeder,
Borough Secretary

Long Island City, May 18, 1926.

The Honorable Maurice E. Connolly,
President of the Borough of Queens.

20 Sir:

Herewith please find certificate for the release of the retained percentage in connection with the construction of sewer in:

30 Saull St. from Blossom Ave. to Cherry Ave.; Cherry Ave. from Saull St. to Colden Ave.; Colden Ave. from Cherry Ave. to Laburnum Ave.; Laburnum Ave. from Colden Ave. to Kissena Boulevard (Jamaica Ave.), 3rd Ward.

The contractor, Kennedy & Smith, Inc., has deposited with the Comptroller bonds covering the amount of the retained percentage. *There is being held in addition to this amount \$954.81 for six months to insure the maintenance of the roadway for that period.*

Yours respectfully,

40 JFP/I J. FRANKLIN PERRINE,
Engineer of Sewers.

(Enc.)

Release when final payment is audited.

E. J. S. 6/28/26.

EXHIBIT C-131 (*continued*).

ENGINEERING.

July 17, 1926.

Mr. Charles H. Graham,
Chief Engineer.

Sir:—

- 10 In relation to final payment amounting to \$28,458.93, Tickler No. 101,705, for construction of a sewer in Saull Street, from Blossom Avenue to Cherry Avenue, etc., in the Borough of Queens, Kennedy & Smith, Inc., Contractor, Contract No. 72,443, I report —

- 20 In order to make temporary provision to carry the sewage for which the outlet had not yet been completed, the Borough President ordered the Contractor to lay temporary drains at several locations, for which no provisions existed in the contract. The price, \$1,700.00, as certified, is reasonable, and was fixed after conferences held by the undersigned with a representative of the Corporation Counsel's Office, which representative informally presented this proposition to this office.

The quantities of work enumerated in the voucher are correct, and the work has been performed in substantial conformity with the contract.

- 30 I recommend the payment of this voucher amounting to \$28,458.93.

Respectfully,

Assistant Engineer.

EXHIBIT C-131 (continued).

CORPORATION

GENERAL RELEASE

10 TO ALL TO WHOM THESE PRESENTS SHALL COME OR
MAY CONCERN, GREETING :

KNOW YE, That KENNEDY & SMITH, INC., FLUSH-
ING*, L. I., for and in consideration of the sum of Twenty eight
thousand, four hundred, fifty eight 93/100 Dollars, lawful money
of the United States of America, to it paid
by The City of New York, the receipt of which is hereby acknowl-
edged, have remised, released and forever discharged, and by
presents does for itself, its successors and assigns, remise, release
20 and forever discharge the said The City of New York, their
successors and assigns, of and from all and all manner of action
and actions, cause and causes of action, suits, debts, dues, sums
of money, accounts, reckonings, bonds, bills, specialties, covenants,
contracts, controversies, agreements, promises, variances, tres-
passes, damages, judgments, extents, executions, claims and
demands whatsoever in law or in equity, which against them it
ever had, now has or which it or its successors or assigns here-
after can, shall or may have, for, upon or by reason of a certain
contract or agreement made the 15 day of Nov. A. D., 1924, by
30 and between KENNEDY & SMITH, INC. and the said The City of
New York, for CONTRACT NO. 72443, Sewer, Saull St. &c., or
by reason of any matter, cause or thing whatsoever resulting or
arising therefrom the beginning of the world to the day of the
date of these presents. Excepting the sum of \$954.81 retained
as repairing security.

IN WITNESS WHEREOF, KENNEDY & SMITH, INC.
has caused its corporate seal to be affixed hereto and its cor-
porate name to be signed to the presents by its Treasurer this
40 28th day of July in the year one thousand, nine hundred and
twenty-six.

Kennedy & Smith, Inc., [L. S.]

HARRY L. SMITH, Treas.

Sealed and delivered in the presence of

W. F. HEFFERNAN.

Original delivered to Chief Auditor.

EXHIBIT C-131 (*continued*).

THE CITY OF NEW YORK
DEPARTMENT OF FINANCE

Bureau of Audit — Division of Administration

10

Municipal Building, Room 631

\$954.81

New York, JUL 28, 1926.

RECEIVED from Charles F. Berry Comptroller, Warrant No. 11435 for the sum of Nine hundred & fifty four 81/100 Dollars, on account of the within Contract numbered 72443 for and in Full of repairing security

20

Kennedy & Smith, Inc.

Kennedy & Smith, Inc.

HARRY L. SMITH, Treas.

30

40

EXHIBIT C-131 (*continued*).

PRESIDENT OF THE BOROUGH OF QUEENS

Bureau of Engineering-Construction

Division of Highways — Borough of Queens

Queens Subway Building — (L. I. City)

10

Nov. 8, 1926.

Maurice E. Connolly,
President

SUBJECT: For constructing sewer, etc. in Saull St. from Blossom Ave. to Cherry Ave.; Cherry Ave. from Saull St. to Colden Ave.; Colden Ave. from Cherry Ave. to Laburnum Ave. and in Laburnum Ave. from Colden Ave. to Kissena Blvd. (Jamaica Ave.), 3rd Ward.

20

J. Franklin Perrine Esq.,
Engineer of Sewers.

Dear Sir:—

In reply to your communication of November 1, 1926 we have had an inspection made of the roadway, curb and sidewalks where disturbed in the above streets, and find same to be in good condition and in accordance with specifications.

30

Very truly yours,

J. J. BLACK,

Engineer of Highways.

(Inspector's report accompanies.)

AW/AM

40

EXHIBIT C-131 (*continued*).

PRESIDENT OF THE BOROUGH OF QUEENS

Bureau of Engineering-Construction

Division of Highways — Borough of Queens

Queens Subway Building — (L. I. City)

10

Nov. 8, 1926.

Maurice E. Connolly,
President

SUBJECT: For constructing sewer, etc. in Saull St. from Blossom Ave. to Cherry Ave.; Cherry Ave. from Saull St. to Colden Ave.; Colden Ave. from Cherry Ave. to Laburnum Ave. and Laburnum Ave. from Colden Ave. to Kissena Blvd. (Jamaica Ave.), 3rd Ward.

20

Mr. Anthony Werner,
Engineer Inspector.

Dear Sir:—

I hereby certify that I have inspected on November 5, 1926 the roadway over sewer trench at the above location and I find that same is in good condition.

30

Respectfully,

(Signed) L. CRAWFORD,

Inspector.

40

EXHIBIT C-131 (*continued*).

THE CITY OF NEW YORK

Office of the

PRESIDENT OF THE BOROUGH OF QUEENS

Bureau of Engineering Construction — Division of Sewers

10 Queens Subway Building — Telephone, 5400 Hunters Point

Maurice E. Connolly,
President of the Borough

Long Island City, N. Y., November 16, 1926.

The Honorable Maurice E. Connolly,
President of the Borough of the Queens.

20 Sir:

Herewith please find certificate for \$954.81 in favor of Kennedy & Smith, Inc., Bradford Ave. and Henry St., Flushing, N. Y., being the amount retained for six months as security for repairs to the street surface and paid in accordance with Chapter 394, Laws of 1921, on contract #72443:

30 For constructing sewer, etc. in Saull St. from Blossom Ave. to Cherry Ave., etc., 3rd Ward.

Date of Completion and Acceptance of Work: Jan. 13, 1926.

Yours respectfully,

J. FRANKLIN PERRINE,

JFP/I

Engineer of Sewers.

40

EXHIBIT C-131 (*continued*).

PRESIDENT OF THE BOROUGH OF QUEENS

Bureau of Engineering-Construction

Division of Highways — Borough of Queens

Queens Subway Building — (L. I. City)

10

Maurice E. Connolly,
President

November 17, 1926.

Hon. Maurice E. Connolly,
President of the Borough of Queens.

Sir:—

20

I have examined, approved and herewith transmit Certificate in the amount of \$954.81, on Contract No. 72443 —

“For constructing sewer, etc., in SAULL STREET, from Blossom Ave, to Cherry Ave., etc., 3rd Ward.”

This voucher is made out in the name of Kennedy & Smith, Inc., Bradford Ave. and Henry St., Flushing, N. Y., who is the contractor.

30

The amount written therein was retained in the form of securities by the Comptroller to insure maintenance.

The maintenance period expired on September 20, 1926.

I recommend that this certificate be forwarded for payment.

Very truly yours,

JAMES RICI,

40

Engineer in Charge,

Engineering-Construction.

EXHIBIT C-131 (*continued*).

THE CITY OF NEW YORK

10 Certificate to Release Securities Deposited with the Comptroller
in Lieu of Retained Percentages, pursuant to Chapter 394
of the Laws of 1921 as Amended

Department Pres't. of Borough of Queens Contract No. 72443
Eng'g. Construction (Sewers)
Contractor KENNEDY & SMITH, INC.

Date of Completion and Acceptance of Work Jan. 13, 1926

20 Description of Work Sewer &c. SAULL ST. from Blossom Ave.
to Cherry Ave.; CHERRY AVE. from Saull St. to Colden
Ave.; COLDEN AVE. from Cherry Ave. to Laburnum Ave.
and in LABURNUM AVE. to Kissena Bvd (Jamaica Ave)
Third Ward.

Amount Due on Expiration of Six (6) months. Maintenance
\$954.81

30 Certificates to be signed by competent persons cognizant
of the facts.

I HEREBY CERTIFY that I have examined the work
above named and find it in good order and in conformity with
the contract and specifications thereof, and that the period of
guarantee for which the above amount was retained has expired.

Date: Stp. 20th, 1926

ANDREWS JOHNSON,

40 Acting Highway Engineer.

I HEREBY CERTIFY that the contractor is entitled to
the return of such securities as may have been deposited with the
Comptroller to cover the sum of \$954.81 retained as maintenance
which became due on Sept. 20th, 1926.

EXHIBIT C-131 (continued).

Date: Nov. 12th, 1926.

J. FRANKLIN PERRINE,

Engineer of Sewers.

10 All computations verified. Approved

J. J. M. Mally, Clerk.

L. C. Connolly, Auditor.

Certificate to be signed by the head of Department.

20 I HEREBY CERTIFY: Upon the information contained in the certificates hereto attached by persons severally designated by me to make such certificates and whose signatures thereto are known by me to be genuine, and to the best of my knowledge, information and belief, that the work has been maintained as required by the contract and is now in good condition; I further certify that the retained amount as set forth herein is now due and that any securities that may have been deposited in lieu thereof may be released.

Date: Nov. 27, 1926.

30
Acting President, Borough of Queens.

Maintenance period expired 7-13-26 Voucher paid 7-28-36

40 According to contract record the retained % of 954.81 was due and payable on July 13, 1926, and the securities required to be deposited in lieu of such payment were not deposited by the contractor because the maintenance period had expired before payment of \$954.81 was made.

E. J. S.

Reexamination of this work shows same to be in good order.

2/24/27 Ass't Engineer.

No action required on this certificate.

EXHIBIT C-131 (*continued*).

Adopted by the Board of Estimate on October 17, 1924
by unanimous consent.

10 NOTICE. — Bidders are particularly requested to care-
fully examine the Proposal for Bids, Form of Agreement, Spe-
cifications, Plan and the location of the work and the surround-
ings thereof before bidding.

No. 3

THE CITY OF NEW YORK

Office of

20 THE PRESIDENT OF THE BOROUGH OF QUEENS.

BUREAU OF SEWERS

1924

30 ASSESSMENT WORK

Proposal for Bids, Bid, Bond, Agreement and Specifications

40 For the construction of a sewer and appurtenances in: SAULL
STREET from Blossom Avenue to Cherry Avenue; CHERRY
AVENUE from Saull Street to Colden Avenue; COLDEN AVE-
NUE from Cherry Avenue to Laburnum Avenue; LABURNUM
AVENUE from Colden Avenue to Kissena Boulevard (Jamaica
Avenue), Third Ward, together with all the work incidental
thereto.

EXHIBIT C-131 (*continued*).

TYPE "B"

THE CITY OF NEW YORK

Office of the

10 THE PRESIDENT OF THE BOROUGH OF QUEENS

BUREAU OF SEWERS

20 Sealed Bids or Proposals for the herein named work will be received at the office of the President of the Borough of Queens on the 4th Floor of the Queens Subway Building, 68 Hunterspoint Avenue, Long Island City, Borough of Queens, in The City of New York, until 11 o'clock a. m.

ON OCT. 31, 1924.

The time allowed for the completion of the work and the full performance of the contract is 300 CONSECUTIVE WORKING DAYS.

30 The liquidated damages for each day in excess of the allowed time, as stipulated in the contract, is ten dollars per day:

The amount of SECURITY or surety bond required will be (\$150,000.00).

40 NOTE. — All bids must be submitted upon the proper blank form of bid and in the sealed envelope prepared and furnished by the Borough President, and must be made out as required. Any bid which fails to name a price, both in writing and in figures per unit of measurement for each and every item of the proposed work where quantities are given, or is incomplete, conditional, obscure, or irregular, may be held to be informal and may be rejected, and in case of any discrepancy between the price written in the bid and given in figures, the price in writing will be considered as the bid. The writing must be in ink.

EXHIBIT C-131 (*continued*).

BID OR ESTIMATE

For the construction of a sewer and appurtenances in: SAULL STREET from Blossom Avenue to Cherry Avenue; CHERRY AVENUE from Saull Street to Colden Avenue; COLDEN AVENUE from Cherry Avenue to Laburnum Avenue; LABURNUM AVENUE from Colden Avenue to Kissena Boulevard (Jamaica Avenue), Third Ward, Borough of Queens.

Made by the corporation of Kennedy & Smith, Inc.

Address Bradford & Henry Street, Flushing.

NAME AND ADDRESS OF EACH AND EVERY MEMBER
OF THE FIRM OR PRINCIPAL OFFICERS
OF THE CORPORATION.

NOTE.—The bidder's name and residence or address must be inserted herebelow, and in case of a firm, the name and address of each and every member of the firm must be inserted.

In case a bid shall be submitted by or in behalf of any corporation, the complete legal name and address of such corporation must be written herebelow, together with the name, address and title of the principal officers of the corporation.

Name Covert F. Smith, President

Address 66 Franklin Place, Flushing.

Name C. H. Kennedy, Vice President

Address 66 Franklin Place, Flushing.

Name Hamy L. Smith, Sec. & Treas.

Address 166 State St., Flushing.

The party named above (of lawful age), as Bidder, declares: That the only person or persons interested in this bid or proposal as principal or principals is or are named above, and that no other person than herein above named has any interest

EXHIBIT C-131 (*continued*).

10 in this bid or in the contract proposed to be taken; that this bid is made without any connection with any other person or persons making a bid for the same work or purpose; that the bid is in all respects fair and without collusion or fraud, and that no member of the Board of Aldermen, no head of a department, no chief of a bureau, deputy thereof, or clerk therein, nor any other officer or employee of The City of New York, is shall be or become, directly or indirectly, interested as contracting party, partner, stockholder, surety or otherwise in the performance of the contract, or in the supplies, work or business to which it relates, or in any portion of the profits thereof, that he has examined the form of contract and specifications approved by the Corporation Counsel and any plans therein referred to, and that he has visited the site of the proposed work and has made himself familiar with all the existing conditions; and he proposes and agrees, if this bid be accepted, that he will contract, in the form so approved, to provide, furnish and deliver all necessary 20 work, labor, services, materials or supplies, machinery, tools, plant, and appliances, and to perform and complete all the work mentioned in said approved form of contract and specifications, and in strict accordance with the terms and conditions thereof, and that he will accept in full payment therefor the following named sums or prices:

30 The Engineer's estimate of the quantities as advertised and the nature and extent of the work and materials or supplies required, though stated with as much accuracy as is practicable in advance, are APPROXIMATE only and are given to form a basis of comparison for testing bids and are not guaranteed to be accurate and are not considered as a binding feature of the contract. Before bidding, Contractors must satisfy themselves by personal examination of the Plans, Specifications, Contract, and location of the proposed work, and by such other means as they may prefer, as to the accuracy of the foregoing statement, and they must determine for themselves, and allow for all difficulties which may be encountered in the prosecution of the 40 work.

T Y P E "B"

1. 1,291 Linear Feet 7'-0" Reinforced Concrete Pipe Sewer (Precast Type "B"), Per Linear Foot, Fifty six Dollars (\$56.00)

EXHIBIT C-131 (continued).

2. 604 Linear Feet 6'-6" Reinforced Concrete Pipe Sewer (Precast Type "B"), Per Linear Foot, Forty Dollars (\$40.00)
3. 440 Linear Feet 6'-6" Reinforced Concrete Pipe Sewer (Precast Type "B"), on piles, excluding rip-rap, piles, clamping and decking, but including concrete cradle, Per Linear Foot, Seventy one Dollars (\$71.00)
4. 316 Linear Feet 5'-6" Reinforced Concrete Pipe Sewer (Precast Type "B"), Per Linear Foot, Thirty two Dollars (\$32.00)
5. 320 Linear Feet 5'-6" Reinforced Concrete Pipe Sewer (Precast Type "B"), on piles, excluding rip-rap, piles, clamping and decking, but including concrete cradle, Per Linear Foot, Sixty two Dollars (\$62.00)
6. 772 Linear Feet 4'-6" Reinforced Concrete Pipe Sewer (Precast Type "B"), Per Linear Foot, Thirty Dollars (\$30.00)
7. 695 Linear Feet 4'-0" Reinforced Concrete Pipe Sewer (Precast Type "B"), Per Linear Foot, Twenty four Dollars (\$24.00)
8. 39 Linear Feet 3'-3" Reinforced Concrete Pipe Sewer (Precast Type "B"), Per Linear Foot, Twenty seven Dollars (\$27.00)
9. 1 Chamber in Saull Street at Cherry Avenue, Complete, Eighteen hundred and Seventy five Dollars (\$1875.00)
10. 1 Chamber in Cherry Avenue at Colden Street, Complete, Three thousand five hundred and seventy five Dollars (\$3575.00)
11. 1 Chamber in Colden Street between Juniper & Kalmia Avenues, Complete, Twenty nine hundred Dollars (\$2900.00)
12. 1 Chamber in Colden Street at Laburnum Avenue, Complete, Thirteen hundred Dollars (\$1300.00)

EXHIBIT C-131 (*continued*).

13. 1 Chamber in Laburnum Avenue at S. S. of Kissena Blvd., Complete, Twelve hundred Dollars (\$1200.00)
14. 1 Chamber in Laburnum Avenue at N. S. of Kissena Blvd., Complete, Twelve hundred Dollars (\$1200.00)
- 10 15. 30 Manholes and Drop Manholes, Complete, Each, Two hundred Dollars (\$200.00)
16. 189 Six-inch Spurs, 24-inches long on Reinforced Concrete Pipe Sewer (Precast Type "B"), Each, One Dollar (\$1.00)
17. 480 Vertical Feet of Risers, Per Vertical Foot, One and 50-00 Dollar (\$1.50)
- 20 18. 700 Linear Feet 6" Vitrified Pipe, House Connection Drains, Per Linear Foot, Two Dollars (\$2.00)
19. 24,000 Cubic Yards Fill to established grade, Per Cubic Yards, Fifty Cents (\$0.50)
20. 3,300 Cubic Yards Cut to established grade, Per Cubic Yard, One Dollar (\$1.00)
- 30 21. 330 Tons of Rip-Rap (one man stone), Per Ton, Four Dollars (\$4.00)
22. 820 Square Yards Macadam Pavement, Per Square Yard, One and 75-00 Dollar (\$1.75)
23. 130 Square Yards Cobble Stone Gutter, Per Square Yard, One and 50-00 Dollar (\$1.50)

40 No bid will be allowed to be withdrawn, for any reason whatever, after it has been received and deposited with the President. The President expressly reserves the right to reject all bids if he shall deem it for the public interest so to do. No bid will be accepted from, nor contract awarded to, any person who is in arrears to The City of New York upon debt or contract, or who is a defaulter, as surety or otherwise, upon any obligation to The City of New York.

EXHIBIT C-131 (*continued*).

No bid or proposal will be received, considered and deposited unless, as a condition precedent to the reception or consideration of any proposal it be accompanied by either a certified check upon one of the State The City of New York, or money to the amount of five per centum (5%) of the amount of the security or surety bond required for the faithful performance of the contract. Such check or money must not be inclosed in the sealed envelope containing the proposal, but must be either inclosed in a separate envelope addressed to the Borough President, or submitted personally upon the presentation of the bid or proposal and handed to the officer or clerk of the Department who has charge of the proposal box, and who will give a proper voucher for the deposit, and no bid can be deposited in said box until such check or money has been examined by said officer or clerk and found to be correct. All such deposits, except that made by the bidder to whom the contract shall be awarded, will be returned to the person or persons making the same within three (3) days after the decision as to who, shall receive the contract. If the bidder to whom the contract shall have been awarded shall refuse or neglect to execute the same within five days after due notice that the contract has been awarded to him, and that the adequacy and sufficiency of the surety offered has been approved by the Comptroller, the amount of the deposit made by him shall be forfeited to and retained by The City of New York as liquidated damages for such neglect or refusal; but if he shall execute the contract and furnish the said security within the time aforesaid, the amount of the deposit shall be returned to him.

Each and every person bidding
must sign here.

NOTE.—Each and every person bidding and named above, must sign here. In the case of a firm, give the name of each and every partner in full.

Kennedy & Smith, Inc. [L. S.]

In case a bid shall be submitted by or in behalf of a corporation, it must be signed in the full legal name of such corporation by some authorized officer or

Harry L. Smith [L. S.]
Sec. Treas.

..... [L. S.]

EXHIBIT C-131 (continued).

agent thereof, who shall subscribe his name and office. If practicable, the seal of the corporation must be affixed.

.....[L. S.]

10 The following affidavit must be similarly signed and sworn to:

THE CITY AND STATE OF NEW YORK, COUNTY OF QUEENS ss.:

The above-named bidder (s), being severally duly sworn, say, each for himself, that the several matters stated in the above bid are in all respects true.

20

Signatures of Bidders

Kennedy & Smith, Inc.
Hamy L. Smith, Sec. Treas.

Subscribed and sworn to before me, this 31st day of October 1924.

ELEANOR A. CORR,
Notary Public, Queens County,
or Commissioner of Deeds.

30

NOTICE TO BIDDERS

40 Bidders are invited to tender bids on monolithic concrete sewers 27-inches and upward, these being the standards of the Sewer Department, and hereafter designated as Type "A", or on reinforced concrete pipe sewer 24-inches and upward (pre-cast) which will be designated as Type "B", or on both types, if they so desire, but it is to be distinctly understood that no bids will be accepted on combination of Types "A" and "B".

EXHIBIT C-131 (*continued*).

NOTICE TO BIDDERS.

Prices to be paid by The City of New York for indeterminate quantities, such as

10	CLASS "A" CONCRETE	15.00	"	"	"
	REINFORCING STEEL .....	.06	Per	Lb.	
	STRUCTURAL STEEL .....	.08	"	"	
	FOUNDATION TIMBER	70.00	Per	1000 Ft.	B. M.
	SHEETING & BRACING	20.00	"	"	" " "
	PILING (TIMBER)	1.00	Per	Ft. driven and	cut-off
	STEAM CINDERS (Delivered & Placed)	1.25	Per	Cu. Yd.	

20 Indeterminate quantities shall be those whose amount and necessity will be determined by the conditions encountered during the work of construction.

Time for presenting bids.

1. Sealed bids for the above-entitled work will be received at the office of the President of the Borough of Queens, Queens Subway Building, Long Island City, in the City of New York, until 11 o'clock A. M. on FRIDAY, Oct. 31st, 1924.

30 Time allowed for completion.

2. The time allowed for the full completion of the work herein described will be Three Hundred (300) CONSECUTIVE WORKING DAYS.

Security required.

40 3. The amount of security required will be One hundred and fifty thousand Dollars (\$150,000.00).

Bidders referred to, form or agreement, etc.

4. Bidders are referred to the form of agreement, to the specifications and to the plan and drawings of Standard Details on file at the office of the President, and to the following Engineer's estimate of the quantity and kind of work required, the

EXHIBIT C-131 (*continued*).

items whereof in all cases include all materials and labor necessary to fully complete said work. Prices for each item shall be named, upon the sum total of which the comparison and tests of bids will be made.

Engineer's estimate.

- 10 TYPE "A" OR SEWER DEPT. STANDARD.
- 1,291 Linear Feet 7'-0" Reinforced Concrete Sewer
- 604 Linear Feet 6'-6" Reinforced Concrete Sewer
- 440 Linear Feet 6'-6" Reinforced Concrete Sewer
on piles, excluding rip rap, piles, clamping and decking
- 316 Linear Feet 5'-6" Reinforced Concrete Sewer
- 20 320 Linear Feet 5'-6" Reinforced Concrete Sewer,
on piles, excluding rip rap, piles, clamping and decking
- 772 Linear Feet 4'-6" Reinforced Concrete Sewer
- 695 Linear Feet 4'-0" Reinforced Concrete Sewer
- 39 Linear Feet 3'-3" Plain Concrete Sewer
- 1 Chamber in Saull St. at Cherry Ave.
- 1 Chamber in Cherry Ave. at Colden St.
- 30 1 Chamber in Colden St. bet. Juniper and Kalmia Aves.
- 1 Chamber in Colden St. at Laburnum Ave.
- 1 Chamber in Laburnum Ave. at N. S. of Kissena Blvd.
- 30 Manholes and Drop Manholes
- 189 Six-inch Spurs, 24-inches long on Concrete Sewers
- 480 Vertical Feet of Risers
- 40 700 Linear Feet 6" Vitrified Pipe, House Connection Drains
- 24,000 Cubic Yards Fill to established grade
- 3,300 Cubic Yards Cut to established grade
- 330 Tons of Rip Rap (one man stone)

EXHIBIT C-131 (continued).

820 Square Yards Macadam Pavement

130 Square Yards Cobble Stone Gutter

T Y P E "B"

- 10 1,291 Linear Feet 7'-0" Reinforced Concrete Pipe Sewer
(Precast Type "B")
- 604 Linear Feet 6'-6" Reinforced Concrete Pipe Sewer
(Precast Type "B")
- 440 Linear Feet 6'-6" Reinforced Concrete Pipe Sewer
(Precast Type "B"), on piles, excluding rip rap, piles,
clamping and decking, but including concrete cradle
- 20 316 Linear Feet 5'-6" Reinforced Concrete Pipe Sewer
(Precast Type "B")
- 320 Linear Feet 5'-6" Reinforced Concrete Pipe Sewer
(Precast Type "B"), on piles, excluding rip rap, piles,
clamping and decking, but including concrete cradle
- 772 Linear Feet 4'-6" Reinforced Concrete Pipe Sewer
(Precast Type "B")
- 695 Linear Feet 4'-0" Reinforced Concrete Pipe Sewer
(Precast Type "B")
- 30 39 Linear Feet 3'-3" Reinforced Concrete Pipe Sewer
(Precast Type "B")
- 1 Chamber in Saull St. at Cherry Ave.
- 1 Chamber in Cherry Ave. at Colden St.
- 1 Chamber in Colden St. bet. Juniper and Kalmia Aves.
- 1 Chamber in Colden St. at Laburnum Ave.
- 40 1 Chamber in Laburnum Ave. at S. S. of Kissena Blvd.
- 1 Chamber in Laburnum Ave. at N. S. of Kissena Blvd.
- 30 Manholes and Drop Manholes
- 189 Six-inch Spurs, 24-inches long on Reinforced Concrete
Pipe Sewers (Precast Type "B")

EXHIBIT C-131 (*continued*).

- 480 Vertical Feet of Risers
- 700 Linear Feet 6" Vitrified Pipe, House Connection Drains
- 24,000 Cubic Yards Fill to established grade
- 3,300 Cubic Yards Cut to established grade
- 10 330 Tons of Rip Rap (one man stone)
- 820 Square Yards Macadam Pavement
- 130 Square Yards Cobble Stone Gutter

Personal examination of work.

5. The foregoing Engineer's Estimate is approximate only and is not to be considered as a binding feature of the contract. Bidders are required to submit their bids upon the following express conditions which apply to and become a part of every bid received. Bidders must satisfy themselves by personal examination of the location of the proposed work and surroundings thereof, and by such other means as they may prefer as to the accuracy of the foregoing estimate, and shall not at any time after submission of their bids, dispute or complain of such estimate of the Engineer, nor assert that there was any misunderstanding in regard to the quantity or kind of materials to be furnished or work to be done.

- 30 Prices to be stated in writing in words, and in figures.

6. Any bid which fails to name a price, written both in words and in figures, per unit of measurement for each of the items for which quantities are given, will be held to be informal and will be rejected. In case of any discrepancy between the price in words and that in figures, the price in words will be considered as the bid.

- 40 Prices bid to cover.

7. The prices bid must cover the cost of furnishing all necessary materials and labor for and the complete performance of all the work set forth in this proposal, described in the form of agreement and specifications annexed hereto, and indicated by the plan of the work on file in the office of the President, to all of which information the bidders are referred.

EXHIBIT C-131 (*continued*).

Rock excavation.

8. The attention of the bidders is particularly directed to the specifications relating to rock excavation.

Bids may be rejected.

10 9. Permission will not be given for the withdrawal of any bid within forty-five (45) days after receipt of bids, and the right is expressly reserved by the President to reject all bids if he shall deem it to be in the public interest so to do. No bid will be accepted from, or contract awarded to, any person who is in arrears to The City of New York upon debt or contract or who is a defaulter, as surety or otherwise, upon any obligation to The City of New York.

20 Times and places for commencing and prosecuting work to be determined by the President.

10. Bidders are especially notified that the President reserves the right to determine the times and places for commencing and prosecuting the work, and that postponement or delay on the whole, or any part thereof, occasioned by the precedence of other contracts, which may be either let or executed before the opening of the bids for this work, can constitute no claim for damages nor for a reduction of the damages fixed for delay in completing the work beyond the time allowed.

30

No extra compensation.

11. The Contractor will be required to complete the entire work to the satisfaction of the President and in accordance with the agreement, the specifications and the plan of the work. No extra compensation beyond the amount payable for the several classes of work hereinbefore enumerated, which shall be actually furnished and performed at the prices bid therefor by the bidder to whom the contract is awarded, shall be due or payable for the entire materials and work.

40

Deposit to accompany bid.

12. No bid will be received or considered unless accompanied by either a certified check upon one of the National or State Banks or Trust Companies of The City of New York, or

EXHIBIT C-131 (*continued*).

10 a check of such bank or trust company signed by a duly authorized officer thereof, drawn to the order of the Comptroller, or money or corporate stock or certificate of indebtedness of any nature issued by the City of New York, which the Comptroller shall approve as of equal value with the security required, to an amount of five per centum of the amount of the bond required for the faithful performance of the contract (as provided by section 420 of The Greater New York Charter as amended). Such check or money or other form of security must not be inclosed in the sealed envelope containing the bid, but must be handed to the officer or clerk who has charge of the bidding, and no bid shall be deposited in the box provided for that purpose until such check or money or other form of security has been examined by said officer or clerk and found to be correct. All such deposits, except those of the lowest three bidders, will be returned to the persons making the same within 10 days after the opening of the bids; within three days after the awarding of the contract, the remaining deposits, except that made by the bidder whose bid has been accepted, will be returned to the persons making the same. If the successful bidder shall refuse or neglect to execute the contract within five days after notice that it has been awarded to him, and that the adequacy and sufficiency of the security offered has been approved by the Comptroller, the amount of the deposit made by him shall be forfeited to and retained by The City of New York, but if he shall execute the contract and furnish the required security within the time aforesaid, the amount of his deposit will be returned to him.

30

Names of persons interested.

40 13. Bidders are required to state in their bids, under oath, their names and places of residence or business, the names of all persons interested with them therein, and if no other person be so interested, they shall distinctly state that fact; also, that it is made without any connection with any other person making any bid for the same purpose, and that it is in all respects fair and without collusion or fraud; and that no member of the Board of Aldermen, head of a department, chief of a bureau, deputy thereof or clerk therein or officer or employee of The City of New York, is, shall be or become interested, directly or indirectly, as contracting party, partner, stockholder, surety or otherwise, in or in the performance of the contract or in the material, work or business to which it relates, or in any portion of the profits thereof. Bidders must verify by oath, in writing, the several matters stated in their bids.

EXHIBIT C-131 (continued).

Sealed bids to be submitted.

14. Each bid must be delivered in a sealed envelope, endorsed with the title of the work for which the bid is made, with the name of the bidder, and the date of presentation to the President at his office, on or before the date and hour hereinbefore named, at which time and place the bids received will be publicly
 10 opened by the President and read and the award of the contract made according to law as soon thereafter as practicable. The person or persons to whom the contract may be awarded will be required to attend at said office with the sureties offered by him or them and execute the contract within five days from the date of the service of a notice to the effect that the contract has been so awarded and the surety accepted; and in case of failure or neglect so to do he or they will be considered as having abandoned the contract and as being in default to the City.

20 Bidders shall use blank forms to be furnished by the President.

15. Bidders shall make their bids upon the forms prepared by the President, a copy of which with the proper envelope in which to enclose the same can be obtained upon application therefor at the office of the President, Queens Subway Building, Long Island City, where the plan can be seen, as also the form of contract, including the specifications in the form approved by the Corporation Counsel.

30

MAURICE E. CONNOLLY,

President of the Borough of Queens.

The City of New York, 192...

40

EXHIBIT C-131 (*continued*).

THE CITY OF NEW YORK
OFFICE OF THE PRESIDENT OF THE BOROUGH
OF QUEENS.

10

BUREAU OF SEWERS.

CONTRACT

20 For the construction of a sewer and appurtenances in:
SAULL STREET from Blossom Avenue to Cherry Avenue,
CHERRY AVENUE from Saull Street to Colden Avenue;
COLDEN AVENUE from Cherry Avenue to Laburnum Avenue;
LABURNUM AVENUE from Colden Avenue to Kissena
Boulevard (Jamaica Ave.), Third Ward.
together with all the work incidental thereto.

Parties.

30 THIS AGREEMENT, made and entered into this 15th
day of November, in the year one thousand nine hundred and
twenty four, by and between The City of New York, party of the
first part, by the President of the Borough of Queens, and
Kennedy & Smith, Inc. of Bradford Ave and Henry Street, Flush-
ing, L. I., Contractor, party of the second part, pursuant to the
provisions of The Greater New York Charter, and the resolution
of the Board of Estimate and Apportionment adopted on the
27th day of June, 1924, of which resolution the following is a
copy:

40

EXHIBIT C-131 (*continued*).

RESOLUTION

BOARD OF ESTIMATE AND APPORTIONMENT.

City of New York

10

(Cal. No. 129)

A copy of a resolution of the Local Board of the Jamaica District, duly adopted by said Board on the 6th day of December, 1923, and approved by the Acting President of the Borough of Queens on the 28th day of December, 1923, having been transmitted to the Board of Estimate and Apportionment, as follows, to wit:

20

“RESOLVED, That this Board does hereby initiate proceedings for the said local improvement, to wit :

“For the construction of a sewer and appurtenances in Saull Street from Blossom avenue to Cherry avenue; Cherry avenue from Saull street to Colden avenue; Colden avenue from Cherry avenue to Laburnum avenue; Laburnum avenue from Colden avenue to Kissena boulevard (Jamaica avenue), Third Ward.”

30

— and thereupon, on the 27th day of June, 1924, resolutions having been adopted by the Board of Estimate and Apportionment authorizing the President of the Borough of Queens to prepare the necessary plans, specifications and an estimate of the cost of the proposed improvement based on actual survey and further resolving that the Board of Estimate and Apportionment will consider the authorization of the construction of the proposed improvement after the President of the Borough of Queens has submitted certain statements as provided in the said resolution, and the said resolution having been duly complied with by the President of the Borough of Queens, as appears by papers and documents on the files of the Board of Estimate and Apportionment, and there having been presented to the Board of Estimate and Apportionment an estimate in writing in such detail as the Board has directed, that the cost of the proposed work or improvement, together with the

40

EXHIBIT C-131 (continued).

preliminary expenses will be the sum of \$326,000; and a statement of the assessed value according to the last preceding tax roll of the real estate included within the probable area of assessment, to wit, the sum of \$18,750,830, having been presented; it is

10 RESOLVED, That the said resolution of the Local Board be and the same is hereby approved and the construction of the local improvement therein provided for is hereby authorized. This Board does hereby determine that no portion of the cost and expense thereof shall be borne and paid by The City of New York, but that the whole of such cost and expense, including the afore-said preliminary expenses, shall be assessed upon the property deemed to be benefited by the said local improvement.

20 A true copy of a resolution by the Board of Estimate and Apportionment, OCTOBER 17, 1924.

.....
Assistant Secretary.

Covenant.

30 WITNESSETH, That the parties to these presents, each in consideration of the agreements on the part of the other herein contained, have mutually agreed, and hereby mutually agree, the party of the first part for itself and its successors, and the party of the second part for itself, himself, or themselves, and its, his or their executors, administrators, successors and assigns, as follows:

Contract.

40 I. The contract for the hereinbefore entitled work shall include the following, which are hereby agreed upon as forming part and parcel thereof: the Proposal for Bids, the Bid, the Bond, this Agreement and the Specifications hereto annexed; also the Plan of the Work dated September 8th, 1924, filed in the office of the President of the Borough, entitled: PLANS, PROFILES and DETAILS for the construction of a sewer and appurtenances in: SAULL STREET, from Blossom Ave. to Cherry Ave.; CHERRY AVE., from Saull St. to Colden Ave.; COLDEN AVE., from Cherry Ave. to Laburnum Ave.; LABURNUM AVE., from

EXHIBIT C-131 (*continued*).

Colden Ave. to Kissena Blvd. (Jamaica Ave.), Third Ward,
Borough of Queens.

and also Drawings of Standard Details pertinent thereto on
file in the office of the Engineer.

10 Party of the first part.

II. Whenever the term "The City" or a word "President,"
or a pronoun in place of either, is used, it refers to and means
The City of New York, the party of the first part hereto, or the
President of the Borough of Queens, or his authorized represent-
ative.

Party of the second part.

20 Whenever the word "Contractor," or a pronoun in place
thereof, is used, it refers to and means the party of the second
part hereto.

Engineer described.

30 III. Whenever the word "Engineer," or a pronoun in
place thereof, is used, it refers to and means the Engineer in
Charge of Sewers, Borough of Queens, acting either directly or
through assistants designated by him to act in the premises,
limited to the particular duties entrusted to them. In case said
Engineer may not be able to act, then such Engineer as may be
designated by the President shall act in his place.

Terms defined.

40 IV. Whenever the word "plan" is used it refers to and
means the plan of this work and the standard drawings pertinent
thereto. Whenever it is provided that anything is "to be" or "to
be done," "if" or "as," or "when" or "where approved," "required,"
"directed," "permitted," "ordered," "designated" or "deemed
necessary" it shall be taken to mean approved, required, per-
mitted, ordered, designated or deemed necessary as the case may
be by the Engineer. Whenever the words "desirable," "suitable,"
"sufficient," "satisfactory" or others of a similar purport are
used it is hereby agreed that the desirability, suitability, suffi-
ciency, satisfactoriness or other denominated condition shall be
as determined by the Engineer.

EXHIBIT C-131 (continued).

Contractor to furnish tools, proper appliances, etc.

10 V. The Contractor hereby agrees to furnish and provide all materials, labor, and appliances necessary and proper for the purpose, to excavate for, build, complete and connect in a good substantial manner, to the satisfaction of the President, and in conformity with the contract, the hereinbefore entitled work and all the work incidental thereto, and the Contractor hereby agrees to receive and accept as and for his full compensation the following prices, which are the amounts or rates at which this contract was awarded to the Contractor at the public letting thereof:

Prices.

T Y P E "B"

- 20 7'-0" Reinforced Concrete Pipe Sewer (Precast Type "B"), Per Linear Foot, Fifty six Dollars (\$56.00).
- 6'-6" Reinforced Concrete Pipe Sewer (Precast Type "B"), Per Linear Foot, Forty Dollars (\$40.00).
- 6'-6" Reinforced Concrete Pipe Sewer (Precast Type "B"), on piles, excluding rip-rap, piles, clamping and decking, but including concrete cradle, Per Linear Foot, Seventy one Dollars (\$71.00).
- 30 5'-6" Reinforced Concrete Pipe Sewer (Precast Type "B"), Per Linear Foot, Thirty two Dollars (\$32.00).
- 5'-6" Reinforced Concrete Pipe Sewer (Precast Type "B"), on piles, excluding rip-rap, piles, clamping and decking, but including concrete cradle, Per Linear Foot, Sixty two Dollars (62.00).
- 40 4'-6" Reinforced Concrete Pipe Sewer (Precast Type "B"), Per Linear Foot, Thirty Dollars (\$30.00).
- 4'-0" Reinforced Concrete Pipe Sewer (Precast Type "B"), Per Linear Foot, Twenty four Dollars (\$24.00).
- 3'-3" Reinforced Concrete Pipe Sewer (Precast Type "B"), Per Linear Foot, Twenty seven Dollars (\$27.00).

EXHIBIT C-131 (*continued*).

- Chamber in Saull St. at Cherry Ave, Completerf, Eighteen hundred seventy five Dollars (1875.00).
- Chamber in Cherry Ave. at Colden St., Complete, Thirty five hundred seventy five Dollars (\$3575.00).
- 10 Chamber in Colden St. between Juniper & Kalmia Aves., Complete, Twenty nine hundred Dollars (\$2900.00).
- Chamber in Colden St. at Laburnum Ave., Complete, Thirteen hundred Dollars (\$1300.00).
- Chamber in Laburnum Ave. at S. S. of Kissena Blvd., Complete. Twelve hundred Dollars (\$1200.00).
- 20 Chamber in Laburnum Ave., at N. S. of Kissena Blvd., Complete, Twelve hundred Dollars (\$1200.00).
- Manholes and Drop Manholes, Complete, Each, Two hundred Dollars (\$200.00).
- Six-inch Spurs, 24-inches long on Reinforced Concrete Pipe Sewers (Precast Type "B"), Each, One Dollar (\$1.00).
- Risers, Per Vertical Foot, One and 50-100 Dollar (\$1.50).
- 30 Six-inch Vitrified Pipe, House Connection Drains, Per Linear Foot, Two Dollars (\$2.00).
- Fill to established grade, Per Cubic Yard, Fifty Cents (\$0.50).
- Cut to established grade, Per Cubic Yard, One Dollar (\$1.00).
- Rip-Rap (one man stone), Per Ton, Four Dollars (\$4.00).
- 40 Macadam Pavement, Per Square Yard, One and 75-100 Dollar (\$1.75).
- Cobble Stone Gutters, Per Square Yard, One and 50-100 Dollar (\$1.50).

EXHIBIT C-131 (*continued*).

Quantities are approximate only.

No extra compensation.

10 VI. The Contractor admits that the quantities of materials to be furnished and the amount of work to be done, as stated in the proposal for bids for the work, are approximate only. The Contractor agrees that The City is not to be held responsible that any of said quantities and amounts shall obtain in the construction of the work, as he has judged for himself as to such quantities and amounts and each of them, and as to the other circumstances affecting the cost of the performance of this contract; and that he will not at any time dispute or complain of such statement nor assert that there was any misunderstanding in regard to the character, size or depth of the excavations to be made or the kind or amount of the materials to be furnished or work to be done. The Contractor hereby agrees that he will 20 not ask, demand, sue for, nor seek to recover for the entire work any extra compensation beyond the amount payable for the several classes of work and kinds of materials in this contract enumerated, which shall be actually performed and furnished, at the prices therefor herein agreed upon and fixed.

Sewers, etc., to be built as shown on the plan.

30 VII. The sewer and appurtenances will be built on the lines, at the depths and at the grades and in the manner shown on the plan of the work as the same will be designated on the ground by the Engineer.

Line may be changed.

40 The President may change the line of the sewer or the location of the sewer appurtenances provided such changes do not materially affect either the character or the amount of the work to be done, or the conditions under which it is to be performed, and the Contractor hereby agrees to make no claim for damages or extra compensation on account thereof.

Preservation of points, stakes, etc.

The Contractor will safeguard all points, stakes, grade marks, monuments and bench marks made or established on or near the line of work, and he agrees to accept responsibility for

EXHIBIT C-131 (*continued*).

and to remedy at his cost any mistakes that may be caused by the unauthorized disturbance or removal of such points, stakes, grade marks, monuments and bench marks.

Written order for extra work.

10 VIII. No claim for additional work or materials shall be made by or allowed to the Contractor, unless before the performance of such additional work the President shall have first authorized the same, in writing, and the same shall have been done or furnished under a written order from the President, given before the performance of such additional work or the furnishing of such additional materials. The aggregate price to be paid for additional work or materials so authorized or ordered shall not exceed five per cent. (5%) of the contract price or the total cost of the work and materials.

20 Contract may be modified.

This contract may be modified and changed from time to time as may previously be agreed to, in writing, between the parties hereto, in a manner not materially affecting the substance thereof or increasing the contract price thereunder, in order to carry out and complete more fully and perfectly the work herein agreed to be done and performed.

30 Limit to extras.

All claims for additional work or materials in any month shall be made to the Engineer, in writing, before the 15th day of the following month, and failing to make such claim within the time required, the rights of the Contractor to additional pay for such additional work or materials shall be deemed to have been waived and forfeited.

Inspection.

40 Work or materials may be condemned at any time.

IX. The Engineer shall inspect the materials furnished and the work done and see that the same correspond with the specifications. The Engineer is hereby authorized and empowered to reject and refuse all labor and material or method of application, or any part thereof, offered under or in fulfillment of

EXHIBIT C-131 (*continued*).

10 this contract, that do not comply in kind, quality or quantity with the terms thereof. Any material delivered or offered to be delivered under this contract, which shall be rejected by the Engineer as not conforming to the terms thereof, will be forthwith removed by the Contractor, and material which does so conform will be forthwith furnished and delivered by him in place thereof. The Contractor hereby agrees not to use any material which has not been inspected and accepted, nor to perform any work except under inspection, to which end he further agrees to notify the Engineer when lines, grades or inspection are required so that the Engineer may have time to provide for the same. No inspection, approval or acceptance of any part of the work herein contracted for or of the materials used therein, or any payment on account thereof, shall prevent the President from refusing to accept the work or materials at any time thereafter.

20 Engineer to be final arbiter.

30 X. To prevent all disputes and litigation, it is hereby agreed that the Chief Engineer in Charge of Sewers shall, in all cases determine the amount and the quality of the several kinds of work and materials which are to be paid for under this contract, and he shall determine all questions in relation to the work and materials and the construction thereof, and he shall in all cases decide every question which may arise relative to the execution of this contract on the part of the Contractor, and his decision will be final and conclusive; and such decision, in case any question shall arise, shall be a condition precedent to the right of the Contractor to receive any money under this contract.

40 Any doubt as to the meaning of this contract and the specifications thereof, or any obscurity as to the wording of them, or any discrepancy between them and the plan will be explained by the Engineer, and his explanation will be accepted by the Contractor, who hereby agrees to execute the work in accordance with such explanation, and to make no charge or claim for any extra work or damage on account thereof.

Work and materials must agree with specifications.

XI. The work will be performed in the best manner, and all materials of which the work is composed will be of the best kind, and a sufficient number of persons will be at all times employed to execute the work with due dispatch, the whole to be

EXHIBIT C-131 (*continued*).

done to the satisfaction of the Engineer, and any materials furnished or work done not satisfactory to the Engineer will be immediately removed and satisfactorily replaced by the Contractor at his own expense; or if he shall neglect or refuse to remove and replace the same when notified so to do by a written notice to be served upon him, then the President may remove, or cause
10 the same to be removed and satisfactorily replaced, by contract or otherwise, as he may deem expedient, and charge the expense thereof to the Contractor; and the expense so charged shall be deducted and paid by The City out of such moneys as are or may become due under this contract.

Examinations.

During the progress or after the completion of the work, should the Engineer require it, for the purpose of examining the same, the Contractor will make such openings, and to such extent
20 through such part or parts of the work as the Engineer may direct, and the Contractor will satisfactorily restore the work so disturbed. Should the openings disclose defects in the work such defects shall be remedied in accordance with the provisions of the first paragraph of this section.

Use of patented articles.

XII. Wherever an article or any kind of material is specified by a trade name or by the name of a patentee, manufacturer or dealer, or by reference to the catalogue of a manufacturer or dealer, it shall be taken as intending to mean and specify the article or kind of material designated, or any other equal thereto
30 in quality, finish and durability, and equally serviceable for the purposes for which it is or they are intended. Nothing on the plan or in the specifications shall be interpreted or taken to violate the provisions of section 1554 of the Greater New York Charter, which provides that "except for repairs, no patented pavement shall be laid and no patented article shall be advertised for, contracted for or purchased, except under such circumstances that there can be a fair and reasonable opportunity for
40 competition, the conditions to secure which shall be prescribed by the Board of Estimate and Apportionment."

Claims for infringement.

The Contractor will be responsible for any claims made against The City for any infringement of patents, by the use of

EXHIBIT C-131 (*continued*).

patented articles or processes in the construction and completion of the work, and he will have harmless and indemnify The City against all costs, expenses and damages caused by reason of any infringement of patents used in the construction and completion of the work.

10 Commencement and completion.

XIII. The Contractor will begin the work herein agreed to be performed on such date as the President shall notify him to begin on and from which date the time hereinafter fixed for the completion of the work shall begin to run. The place where the work is to be begun will be either stated in said notice or designated on the ground by the Engineer. The commencement of work by the Contractor shall be deemed and taken to be a waiver on his part of notice to begin work, in which case the time for the completion of the work will begin to run on and from the date the work was commenced.

Time of performance.

XIV. The Contractor will carry on the work with such force and in such manner and order and at such places, times and seasons, including freezing weather, as may be directed by the Engineer, and will execute all the work in every respect in a thorough and workmanlike manner; and he will fully and entirely perform this contract on his part before the expiration of three hundred (300) CONSECUTIVE WORKING DAYS.

Time important.

40 It is hereby agreed that the time designated for the performance of all the work under this Contract is of the essence of this agreement, in view whereof it is hereby further agreed that a rate of progress will be maintained so that the work performed up to any time will be at least the same percentage of the total work to be performed under this contract as the net elapsed time at such time is of the total time allowed for the performance of all the work under this contract.

In the computation of the number of consecutive working days, the time during which the completion of the work has been delayed in consequence of the condition of the weather, or tides, or by any act or omission of the party of the first part or during

EXHIBIT C-131 (*continued*).

such period as the work has been suspended by written order of the President, or delays for which the Contractor is not responsible (all of which will be determined by the President, who shall certify to the same in writing, and whose determination and certificate thereof shall be binding and conclusive upon the Contractor), will be allowed to the Contractor and will be deducted in computation. Sundays and also holidays on which no work is done, will also be excluded from said computation. In case a larger amount of rock excavation than is set forth in the Engineer's Estimate shall be necessary, an allowance of one day will be made for each 25 cubic yards of such excess of rock excavated and removed in accordance with the measurement of rock allowed by the specifications. If the completion of the work to be done under this contract shall require work or materials or both in greater amounts than those set forth in the Engineer's Estimate of Quantities, or if unforeseen obstacles are encountered in the prosecution of said work then the time which the Contractor is delayed on account thereof will be determined and allowed by the President at the completion of the work, upon the receipt by him of a written application from the Contractor for such determination and allowance. No demand by the Contractor that the President determine and certify the matters aforesaid shall be of any effect whatsoever unless the same be made in writing and duly served upon the President prior to the filing in the office of the Comptroller of The City of the final certificate of the completion and acceptance of the work.

End of time period.

The time shall run against this contract until all work called for in this contract is completed to the satisfaction of the Engineer.

Liquidated damages.

XV. In case the Contractor shall fail to complete the work hereunder in accordance with the contract within the time aforesaid, he agrees to pay to The City the sum of ten Dollars (\$10.00) for each and every day the time consumed in said performance and completion exceeds the time hereinbefore allowed for that purpose; which said sum, in view of the difficulty of ascertaining the loss which The City will suffer by reason of delay in the performance of the work hereunder, is hereby

EXHIBIT C-131 (*continued*).

agreed upon, fixed and determined by the parties hereto as the liquidated damages that The City will suffer by reason of said delay and default, and not as a penalty; and The City shall and may deduct and retain the amount of such liquidated damages out of the moneys which may be due or become due to the Contractor under this contract.

10 Work not provided for in contract.

XVI. If, before the completion of the work contemplated herein, it shall become necessary to do any other or further work on or near the line thereof than is provided for in this contract, the Contractor will not in any way interfere with or molest such person or persons as the President may employ to do such work, and will carry on the work under this contract in such manner as may be ordered so as to afford all reasonable facilities for
20 doing such other or further work; and no damage or claim by the Contractor shall be allowed therefor, except such allowance of time for delay as the President may deem reasonable.

President's right to suspend work.

XVII. The President is hereby authorized to suspend the whole or any part of the work herein contracted to be done, if he shall deem it for the interest of The City so to do. During such suspension the trenches shall be backfilled, if required, and the
30 roadways and pavements over the same satisfactorily restored, and all materials upon the work shall be neatly piled so as not to obstruct public travel, or shall be removed from the line of the work, if directed.

No damages to be claimed for delay due to other contracts.

XVIII. Should postponement or delay be occasioned by the precedence of paving or other contracts, which may have been
40 either let or executed before the opening of the bids for this contract, the Contractor will make no claim for damages therefor nor for any damages in consequence of the street or the adjoining sewers not being in the condition contemplated by the parties at the time of making the contract; if, however, the Contractor shall be delayed in performance of his work by reason of the street or the adjoining sewers not being in such condition, or by reason of the work or any work or any part thereof being suspended as

EXHIBIT C-131 (*continued*).

herein before provided, such allowance of time on account thereof as the President shall deem reasonable will be made.

10 If the work be suspended or delayed by any act or omission of The City, or for the reason that The City does not own or has not obtained possession of, or the right to enter upon the land upon which the work is to be performed, or because of any act or omission of any employee or agent of The City or any other Contractor performing work for The City, the President, or whoever is directed by this contract, to make the certificate in reference to time, shall make such allowance of time for the completion of the work as the Engineer shall certify that the work has been delayed. No allowance whatever as damages will be made to the Contractor because of any such suspension or delays, and no claim shall be made by the Contractor on account thereof.

20 Allowance of time for delays.

XIX. No allowances of time for delays under the provisions of this contract nor the delivery and acceptance of any articles or materials called for by this contract, shall be deemed to be a waiver by the President of the right to abrogate this contract for abandonment or delay in the manner hereinafter provided.

Right to construct sewers, etc.

30 Permits for connections.

40 XX. Prior to the commencement of and during the progress of the work under this contract the President shall have the right to undertake, and to grant permits for, any construction, reconstruction, and repairing of any pipes, sewers, basins, subway ducts and railway tracks, and any appurtenances thereof located on and adjoining the line of the work, and for any connections with and additions to such pipes, etc., and for such purposes the President is hereby authorized to suspend work on any part of this contract, in accordance with Section XVII., and the Contractor will not interfere with nor place any obstructions in the way of any person or persons who may be engaged upon such work. The President is hereby authorized to connect, by contract or otherwise, any sewers and drains with the work built under this contract and to grant permits to any person or persons to make connections therewith at any time before it is completed;

EXHIBIT C-131 (*continued*).

and the Contractor will not interfere with nor place obstructions in the way of such persons as may be employed in building such sewers and drains, or in making such connections, and the flow from such sewers, drains and connections will be permitted by the Contractor to discharge into the work built under this contract and the Contractor agrees to make no claim for compensation, damages or delay on account thereof. The issuance of such permits shall not be considered as an acceptance by The City of that part of the sewer into which such connections empty or flow, nor shall the Contractor on account thereof be relieved from the cleaning of the sewer prior to the final examination of the work. No new connections or drains will be allowed to be made or joined to the work built under this contract unless a permit therefor has been duly issued by the President, which permit shall be shown in all cases to the Inspector of the work.

20 Flow of sewers and drains, etc.

Drains, etc., interrupted.

Sewers, etc., to be kept clean.

XXI. The Contractor will provide at his own cost for the flow of the sewers, drains and water courses interrupted during the progress of the work, and will immediately cart away and remove all offensive matter. The flow throughout the entire length of such sewers and appurtenances as are to be replaced by the work to be done under this contract will be maintained by the Contractor. The Contractor will remove at his own cost and expense all such bulkheads, as may be directed, from the sewers with which the work under this contract will be connected. When the permanent removal of any existing pipe sewers and appurtenances and pipe drains is necessitated by the work to be done under this contract, such of the materials of such structures as may be directed shall be carefully taken up, piled and left at the disposal of The City, and shall not be used in the work, and the remainder shall be removed from the work and disposed of by the Contractor. Wherever the work to be built under this contract, or the trenches in which it is to be constructed, follow the line and occupy the place of or intercept the Fire Alarm Telegraph System of The City, or any existing sewers, drains, culverts, basin connections or house connections for which permits may have been granted prior to the opening of the bids for this contract, the Contractor will make the same good, and will rebuild the

EXHIBIT C-131 (*continued*).

10 Fire Alarm Telegraph System of The City and also said sewers, drains, culverts and connections, or connect the same with the sewer built under this contract, whichever he may be directed to do, at his own cost and expense. All sewers, drains, culverts, basins and basin connections rendered unnecessary by the construction of the work herein contemplated, shall be thoroughly broken up, except as otherwise hereinbefore provided, and satisfactorily filled in by the Contractor at his own cost and expense, as shall also all portions of water courses in, through or across any street that may be rendered unnecessary by the construction of this work. During the progress of the work, and until the completion and acceptance thereof, the sewers, drains, basins, culverts and connections built under this contract shall be kept thoroughly cleaned throughout, and shall be left clean.

Sale of sand or earth.

20 XXII. The Contractor will not sell, nor permit to be removed from the line of the work, before the trench shall have been backfilled, any building sand or earth thrown up, except upon written permission, and then only so much as shall remain after reserving a sufficient quantity to backfill the trench and complete the paving; and the Contractor will, in all cases, backfill the trench with the same material thrown out, provided it be suitable, then the same shall be removed from the line of work, and suitable material procured and used for backfilling the trench, and when required sand of proper quality and depth shall be spread on the surface to receive the pavement.

30
40 The Contractor hereby agrees that all excavated material and materials of construction placed by him or for him upon private property, unless by written permission of the owners or lessees thereof, will be removed by him and all damage to said property remedied by him at his own cost and expense. Unless such materials are removed and such damage remedied by the Contractor within 48 hours after the receipt by him of a written notice so to do, he agrees that the President shall be and is hereby authorized to dispose of such materials, and to remedy such damage and to deduct the expense thereof from the moneys due or to become due under this contract.

EXHIBIT C-131 (*continued*).

Contractor to give personal attention to work.

Not to assign or sublet.

10 XXIII. The Contractor will give his personal attention constantly to the faithful prosecution of the work; he will not assign, transfer, convey, sublet or otherwise dispose of this contract, or his right, title or interest in or to the same, or any part thereof, without the previous consent, in writing, of the President, indorsed hereon or hereto attached; and he will not assign, by power of attorney or otherwise, any of the moneys to become due and payable under this contract, unless by and with the like consent, signified in like manner. If the Contractor shall, without such previous written consent, assign, transfer, convey, sublet or otherwise dispose of this contract, or of his right, title or interest therein, or any of the moneys due or to become due under this contract, to any other person, company or other corporation, this 20 contract may, at the option of the President, be revoked and annulled, and The City shall thereupon be relieved and discharged from any and all liability and obligations growing out of the same to the Contractor, and to his assignee or transferee; provided that nothing herein contained shall be construed to hinder, prevent or affect an assignment by the Contractor for the benefit of his creditors, made pursuant to the statutes of the State of New York: and no right under this contract, or to any money to become due hereunder, shall be asserted against The City, in law or in equity, by reason of any so-called assignment 30 of this contract, or any part thereof, or of any moneys due or to become due hereunder, unless authorized as aforesaid by the written consent of the President.

When Contractor is absent.

Disorderly workmen.

Contractor to provide assistance.

40 XXIV. Whenever the Contractor is not present on any part of the work where it may be necessary to give directions, orders will be given by the Engineer to and shall be received and obeyed by the superintendents and foremen who may have immediate charge of the men employed on the particular work in relation to which the order may be given; and at any time, if a foreman or workman employed by the Contractor shall be de-

EXHIBIT C-131 (*continued*).

clared by the Engineer to be disobedient, incompetent or disrespectful, the Contractor, on receiving written notice to that effect, will forthwith dismiss such person, and will not again employ him on any part of the work. The Contractor will provide all necessary assistance for the Engineer when required, without charge or expense to The City or Engineer.

10 Contractor to plank and bridge for traffic.

XXV. The Contractor will observe the law and all ordinances of The City in relation to obstructing the streets, keeping open passageways and protecting the same where they are exposed and would be dangerous to the public travel, and such passageways shall, as may be required, be planked or bridged by the Contractor, at his own expense.

20 Guards and lights.

Indemnification of City.

30 XXVI. During the performance of the work herein set forth the Contractor will place proper guards upon and around the same for the prevention of accidents, and at night will put up and keep suitable and sufficient lights, and he will indemnify and save harmless The City against and from all claims, suits and actions, of every name and description, brought against it, and all costs and damages to which it may be put on account or by reason of any injury or alleged injury to the person or property of another, resulting from the prosecution of the work or from negligence or carelessness in the performance of the work, or in guarding the same, or from any improper materials used in its prosecution, or by or on account of any act or omission of the Contractor or his agents; and the Contractor agrees that the whole or so much of the moneys due to the Contractor under and by virtue of this contract, as shall or may be considered necessary by the Comptroller of The City, may, as its option, be retained
40 by The City until all such suits and claims for damages as aforesaid shall have been settled, and evidence to that effect furnished to the satisfaction of the Comptroller.

Contractor to make repairs.

XXVII. In case any injury is done to property along the line of the work, or to any sidewalk, in consequence of any act or

EXHIBIT C-131 (*continued*).

omission on the part of the Contractor or his employees or agents in carrying out any of the provisions or requirements of this contract, the Contractor will make such repairs as are necessary in consequence thereof, at his own expense and to the satisfaction of the President, and in case of failure on the part of the Contractor to promptly make such repairs, they may be made by the President, and the expense thereof will be deducted out of
10 the moneys due or to become due to the Contractor under this contract.

Loss or damage to be assumed by Contractor.

XXVIII. The Contractor agrees to assume, and to make no claim on account of, any and all loss or damages arising out of the nature of the work to be done under this contract, or from any unforeseen obstructions or difficulties which may be encountered in the prosecution of the same, or from the action of
20 the elements, or from incumbrances on or near the line of the work, or from the breaking of water mains, sewer and gas mains on or near the line of the work.

Claims for labor, etc.

XXIX. The Contractor will pay promptly, and in cash, for all labor employed upon and all materials furnished and used in the work, and if at any time before or within thirty days after the whole work herein agreed to be performed has been completed and accepted by The City, any person or persons claiming to have
30 performed any labor or furnished any materials toward the performance and completion of the contract, shall file with the President and with the Comptroller of The City any such notice as is described in the Lien Law or any act of the Legislature of the State of New York, then, and in every such case, The City shall retain—anything herein contained to the contrary thereto notwithstanding—from the moneys under its control, and due or to become due under this contract, so much of the moneys as shall
40 be sufficient to pay off, satisfy and discharge the amount in such notice alleged or claimed to be due to the person or persons filing such notice, together with the reasonable cost of any action or actions brought to enforce such claim or the lien created by the filing of such notice. The money so retained shall be retained by The City until the lien thereon created by the said act and the filing of the said notice shall be discharged, pursuant to the provisions of the said act.

EXHIBIT C-131 (*continued*).

Contractor will prevent filing of liens, etc.

10 XXX. The Contractor will not, at any time, suffer or permit any lien, attachment, or other incumbrances, under the law of this State or otherwise, by any person or persons whomsoever, to remain on file in the Finance Department or at the office of the City Department having supervision of the work against any money due or to become due for any work done or materials furnished under this contract, or by reason of any other claim or demand against the Contractor; and that any such lien, attachment, or other incumbrance, until it is removed, shall preclude any and all claim or demand for any payment whatsoever under or by virtue of this contract.

Evidence of satisfaction of liens, etc.

20 The Contractor further agrees that he will present to the party of the first part satisfactory evidence that all just liens, claims and demands of his employees, or of parties from whom materials used in the construction of the work may have been purchased or procured are fully satisfied and that the materials furnished and work done under this contract are fully released from all such liens, claims and demands before said party of the second part will demand or shall receive the sums due on final payment under this contract.

30 Notice to gas companies, etc.

Not to hinder other companies.

40 XXXI. At least 24 hours before breaking ground for the work under this contract the Contractor will give notice, in writing, to all gas, railroad and other companies owning or controlling any pipe, tracks or other structures which during the progress of the work may be affected by the prosecution of the same so that said companies may protect or remove their structures, and he will not cause any hindrance to, or interference with, any such gas company or other company or companies in protecting their said pipes, tracks or other structures, nor in removing or otherwise protecting and replacing the main and service pipe, lampposts, lamps, tracks or other structures where necessary, but the Contractor will suffer the said company or companies to take all such measures as are requisite for the purpose aforesaid. But if said

EXHIBIT C-131 (*continued*).

gas, railroad, or other companies, within five days after receipt of such notice, fail to support, remove or otherwise protect their structures, the Contractor will upon the approval of the President protect or remove the same, it being expressly understood that the cost thereof shall not be a charge against The City, but shall be a matter for adjustment between the Contractor and the company or companies concerned.

10

Pipes, conduits, etc., of private companies.

XXXII. It is hereby agreed that The City is not responsible or liable for the support, protection or reconstruction of such gas pipes, conduits, water pipes, tracks or structures owned by private companies enjoying special franchises or occupying any portion of the street or way on or below the surface in its streets or ways, as the Contractor admits that he has carefully examined the location of work, has made special inquiry at the offices of the companies owning, controlling or operating said pipes, conduits, tracks and structures, and he has determined to his satisfaction the character, size, location and length of such pipes, conduits, tracks and structures; that he has inspected the public records of the various City Departments having cognizance and control of pipes, conduits, and other subsurface structures. and of The City's water pipes, conduits and sewers, and he has made such further personal inspection and investigation as he deemed proper to determine the correctness of the information so obtained; and he clearly understands that The City does not insure the accuracy of such reports or information, and agrees that he will not make any claim against The City for damages or extra work caused or occasioned by his relying upon such records, reports or information furnished by any City Department or any companies, either as a whole or in part.

20

30

Protection and restoration of pipes, etc., of private companies.

XXXIII. The Contractor agrees to confer with and to make to or entertain an offer from such private companies as own the said pipes, conduits, tracks or structures; and the Contractor further agrees to enter into an agreement with said companies by what terms and at what prices the support, protection, removal and reconstruction of the pipes, conduits, tracks and structures will be undertaken and accomplished, and in the event of the failure to make such an agreement with said companies, he will not complain nor make any demand on The City for

40

EXHIBIT C-131 (*continued*).

additional compensation or pay for supporting, protecting, or restoring the said pipes, conduits, tracks or other structures.

Contractor to notify Department of Water Supply.

Gas and Electricity.

- 10 XXXIV. At least twenty-four hours before breaking ground, for the purpose of constructing the work of this contract, the Contractor agrees to give notice thereof in writing to the Department of Water Supply, Gas and Electricity.

City's water pipes, etc.

- 20 XXXV. If upon excavating it shall be found that any existing water pipes or appurtenances owned or controlled or operated by The City follow the lines, or occupy the place, of the sewer or sewers and appurtenances to be laid or built as shown on the plan, such existing water pipes and appurtenances will be removed and relaid, or rebuilt, by and at the cost of the Department of Water Supply, Gas and Electricity of The City of New York; if, however, in order to facilitate the work to be done under this contract, it be found desirable to temporarily remove any water pipes or appurtenances owned or controlled or operated by The City, the removal and replacing in their original positions of such water pipes and appurtenances will be done by the Department of Water Supply, Gas and Electricity for the Contractor at his cost and expense.
- 30

Protection of City's water pipes, etc.

- 40 XXXVI. The contractor agrees to protect all water mains and service water pipes owned, controlled or operated by The City which may be affected in any manner by the work done under this contract, except as hereinbefore provided, and to protect all such water and service pipes from freezing, and if he fails to do so, the Commissioner of Water Supply, Gas and Electricity is hereby authorized to protect such main and service pipes, or in the event of their having suffered injury to replace such pipes, and recalk and repair the same immediately, as the work progresses, and the cost thereof shall be charged to the Contractor; the cost so charged shall be deducted from any sum or sums due or to become due to the Contractor under this contract, and in case such sum or sums shall be insufficient to cover such cost, the Contractor will be liable for the balance.

EXHIBIT C-131 (*continued*).

Protection of gas and water mains and pipes, etc.

10 XXXVII. The Contractor agrees to sustain in their places and protect from injury all water or gas mains, conduits, subways or service pipes, steam pipes and pneumatic pipes, and all sidewalks, curbs, stoops, areas, and all other property in the vicinity of his work, from direct or indirect injury by caving or otherwise, and he hereby assumes all expenses for direct or indirect damage which may be occasioned by injury to any of them, and he agrees to have at all times a sufficient quantity of timber and other necessary materials and appliances on the ground, and will use the same, as required, for bracing and sheeting the sides and ends of excavations, and for sustaining and supporting any and all pipes, conduits, subways, lamp-posts and lamps or other structures that are undermined, weakened, endangered or threatened; and in case any damage or injury shall or may result to 20 said pipes, conduits, subways, lamp-posts and lamps and other works or structures of any gas, electric, railroad or other company whatsoever, or to any private property, through or by reason of any negligence, wilfulness, carelessness or want of skill on the part of the Contractor, his agents or servants, the Contractor hereby agrees to pay such amount as may be sufficient to cover the expense and damages occasioned by such negligence, wilfulness, carelessness or unskillfulness, and that such amount shall be charged against him; and the President is hereby authorized to deduct and retain from any moneys which may be due, or 30 which shall become due, under this Contract, a sum sufficient, in his judgment, to cover the cost of making good any such damages. expense or loss, and to apply said sum so deducted and retained to the requisite repairs or renewals, or to reimburse the parties damaged or injured.

Old water and gas pipes.

40 XXXVIII. All iron, water and gas pipes which it becomes necessary to remove shall be considered the property of The City and will be piled by the Contractor in such part or parts of the streets as may be directed, unless notice to the contrary is given him in writing, in which case he will remove the same at his own expense.

Change of grade.

XXXIX. In case the grade of the street shall be changed during the progress of the work, the Contractor will conform to

EXHIBIT C-131 (continued).

the altered grade at the contract prices, as far as they are applicable; and for any work for which here is no contract price, the provisions in relation to work not provided for in this contract shall apply.

Measurement of work and material.

10 XL. All quantities of work and materials to be paid for will be measured and determined, according to the plan and the working lines that may be given, and the specifications, when the work conforms thereto. No allowance will be made on any part of the work for any excess above the quantities required by such plan, lines and specifications. Should the dimensions of any part of the work, or of the materials, be less than those required by the plan, the actual quantities only will be allowed in measurement.

20 Payment on acceptance of work.

30 XLI. The Contractor will not be entitled to demand or receive payment for any portion of the work or materials unless the same has been fully completed in the manner set forth in this contract, and such completion duly certified by the Engineer in Charge of Sewers, and until each and every one of the stipulations hereinbefore mentioned is complied with, and the work completed to the satisfaction of the President and accepted by him, and the final certificate of completion and acceptance thereof, signed by the President and said Engineer, filed with the Comptroller. The City will pay to the Contractor on or before the expiration of thirty days from the filing of said final certificate of completion and acceptance in the office of the Comptroller, the whole of the moneys accruing to the Contractor, under this contract, except such sum or sums of money as shall be retained under any of the provisions herein contained for that purpose, or in any law of the State, or under any ordinance of The City passed prior to the date of this contract and now in force.

40 Moneys to be retained for repairs to unpaved streets.

It is hereby further agreed that The City shall be and is hereby authorized to retain out the moneys payable to the Contractor, during a period of six months from the date of the final completion and the acceptance by the President of the work done under this contract, the sum of \$0.06 for each linear foot of sewer,

EXHIBIT C-131 (*continued*).

basin connection, and house connection constructed under this contract within unpaved streets, and the sum of \$0.75 for each linear foot constructed within streets repaired by the Contractor. And should the Contractor fail to make such repairs to the street surface as may become necessary by reason of the work done under this contract within two days of the date of service of notice upon him so to do, then the President may expend such sum or any part thereof in making such repairs.

Payment of retained moneys to be made after six months.

It is hereby further agreed that The City, upon the expiration of the said period of six months, will pay to the said party of the second part the whole or such part of the moneys retained as may remain after the expenses of making said repairs, in the manner aforesaid, shall have been paid therefrom.

20 Termination of six months' period.

It is hereby further agreed that if the termination of the said period of six months after the completion and acceptance of the work done under this contract shall fall within the months of December, January, February or March, then and in that case the said months of December, January, February and March, or such part thereof as the President may determine, will not be included in the computation of said period of six months.

30 Final certificate to control.

XLII. The action of the Engineer in Charge of Sewers by which the Contractor is to be bound and concluded according to the terms of this Contract shall be that evidenced by said Engineer's final certificate, all prior certificates upon which eighty-five per centum (85%) payments may have been made being merely estimates, and subject to the corrections of such final certificate, which may be made without notice to the Contractor thereof, or of the measurements upon which the same is based.

85% payments.

40 XLIII. In case the amount of this contract, based on the Engineer's estimate and the contract prices, shall be five thousand dollars (\$5,000.00) or over the Engineer shall from time to time, as the work progresses, but not oftener than once a month,

EXHIBIT C-131 (*continued*).

make in writing an estimate, such as in his opinion, shall be just and fair, of the amount of the work done and material installed by the Contractor in the performance of this contract on his part, and of the value thereof under and according to the terms of this contract. No allowance will be made in these estimates for materials furnished and delivered until such materials shall have been permanently incorporated in the work, except as hereinafter stated. The first such estimate will be of the amount of work done and materials furnished and installed since the Contractor commenced the performance of this contract on his part, and every subsequent estimate except the final one, will be of the amount of work done and materials furnished and installed since the last preceding estimate was made. In the estimates allowances will be made for Reinforcing Steel, Structural Steel, Pumps, Electric Motors, Valves, Cast Iron Pipe, Salt Glazed Tile Pipe 12 inches in diameter and larger sizes, Precast Concrete Pipe 24 inches in diameter and larger sizes, Stationary Screens, Mechanically Driven Screens, Cast Iron Tunnel Lining and Precast concrete Blocks for Tunnel Lining, prior to their installation, which are owned by the Contractor and free from all liens or claims, and which have been delivered at locations where work is to be performed under this contract. Such allowances will be calculated at Eighty (80) per cent of the cost price for said materials. But no allowances will be made for those materials delivered which are in excess of the quantities permitted under the specifications to be distributed along the lines of the work. The Contractor will be required to furnish, prior to the certification for payment, written evidence satisfactory to the Borough President that the Contractor is the owner of the materials upon which payment is to be certified, and that such materials are free from liens or claims. Before certifying for payment for materials aforesaid, the Contractor shall execute or have executed and delivered to the City any and all instruments required to vest in The City title to such materials free from claims or liens. Title to materials certified for payment shall vest in The City upon certification of the same for payment. The Contractor, however, agrees to and does assume responsibility for the safety, care and protection of all such materials until they have been finally installed in the work and the completed work accepted by the City, and further agrees at his own cost to replace any such materials that may be lost or damaged. The aforesaid estimates of amount and quantity will not be required to be made by strict measurement, but they may be made by measurement or by estimation, or partly by one and partly by the other, and it shall

EXHIBIT C-131 (*continued*).

10 be sufficient if they are approximate only and estimates strictly so called. Upon each such estimate, made prior to the time of the completion of all the work of laying all the sewers and appurtenances and the backfilling of trenches, said estimate being certified in writing by the Borough President and Engineer and filed with the Comptroller, The City will pay to the Contractor eighty-five per centum of the amount stated in such estimate to be the value of the work therein certified to have been done and materials certified therein to have been furnished and installed, and eighty-five per cent of eighty per cent of the cost not exceeding the contract value of materials not installed hereinabove specified; except that subsequent to the completion of all the work of laying all the sewers and appurtenances and the backfilling of the trenches, The City will pay to the Contractor eighty-five per centum of the value of the work done and materials furnished under the contract as certified by the Engineer, less the sums theretofore paid to the Contractor. No payment, however, will be made unless the value of the work done and materials furnished, certified in each such estimate, shall amount to more than fifteen hundred dollars (\$1500.) and provided, that The City may at all times reserve and retain out of said installments, or any of them, such sum or sums as by the terms hereof, or of any act of the Legislature of the State of New York, or of any ordinance of The City passed prior to the date hereof, it is or may be authorized to reserve or retain; and provided that where the Contractor, although the lowest bidder in the gross calculation, is to receive unusual or extraordinary prices for any of the different items of the work when considered separately, nothing herein contained shall be construed to affect the right of the President to determine the amount that may be due from time to time, not necessarily by the prices agreed upon in this contract, but by causing an estimate to be made of the value of the work done, taking as a basis of the calculations the whole amount of money that will have become due, according to the terms of this contract, when the whole work shall be completed.

40 If abandoned, etc.

Contract may be declared abandoned.

Completion of work to be undertaken by President.

XLIV. The Contractor hereby agrees that if the work to be done under this contract shall be abandoned by him, or if this

EXHIBIT C-131 (*continued*).

contract shall be assigned or the work sublet by him otherwise than as provided by the terms hereof, or if at any time the Engineer shall be of the opinion, and shall so certify, in writing, to the President that the performance of the contract is unnecessarily or unreasonably delayed, as evidenced by its actual rate of progress compared with the required progress (See Section XIV); or that the Contractor is wilfully violating any of the conditions or covenants of this contract or the specifications thereof, or is executing the same in bad faith, or not in accordance with the terms thereof, or that the work is not fully completed within the time designated in this contract for its completion, the President may declare this contract or any part thereof abandoned and notify the Contractor to discontinue all work or any part thereof under this contract, by a written notice to be served upon the Contractor either personally, or by leaving said notice at his residence, or with his agent in charge of the work, or in the manner provided in Section XLV., or with any employee found on the work, and the Contractor agrees to thereupon discontinue said work or such part thereof, and he further agrees that the President shall thereupon have the power to contract for the completion of the contract in the manner prescribed by law, or to place such and so many persons as he may deem advisable, by contract or otherwise, to work at and complete the work declared abandoned, and to use such materials as he may find upon the line of the work, and to procure other plants and materials for the completion of the same, and to charge the expense of said plant, labor and materials to the Contractor; and it is further agreed that the expense so charged shall be deducted and also liquidated damages for delay in the completion of the work, as provided in Clause XV shall be deducted and paid by the City out of such moneys as would have been payable to the Contractor if he had completed the work. And in case such expense and liquidated damages shall exceed the sum which would have been payable under this contract, if the same had been completed by the Contractor, he shall and will pay the amount of such excess to the City; and in case such expense and liquidated damages shall be less than the sum which would be payable to the Contractor, if the Contractor had completed the contract, he shall be entitled to the difference, subject to all the other terms, covenants and conditions of this contract. Upon the President signing the aforesaid written notice to the Contractor to discontinue all or any part of the work, he shall have the right to take immediate possession on behalf

EXHIBIT C-131 (*continued*).

of The City of the plant and materials upon the line of the work, without notice to the Contractor, for the purpose hereinbefore specified, and no such plant or materials shall be removed so long as the same may be wanted for the work. In the computation of liquidated damages for delay in completion of the work, the time taken by The City or given to the new Contractor to whom the contract for the completion of this contract may be
10 awarded, as well as the time taken in advertising and awarding such contract, shall be added to the time consumed by the Contractor under this contract up to the date when The City shall take the action provided in this clause, and from such total there shall be deducted the time allowed to the Contractor for completing the work under this contract. When any particular part of the work is being carried on by The City by contract or otherwise under the provisions of this clause of the contract, the Contractor agrees to continue the remainder of the work in conformity with the terms of this contract and in such manner as in
20 no wise to hinder or interfere with the persons or workmen employed, as above provided by The City by contract or otherwise to do any part of the work, or to complete the same under the provisions of this clause of the contract. In the event of the President undertaking to have performed the work or any part thereof under this clause of the contract, his certificate as to the amount of work done, cost, and of the excess cost, if any, of completing the work called for by this contract shall be binding and conclusive upon the Contractor, his assignees and his sureties.
30

Notice to Contractor.

XLV. It is agreed that the residence or place of business, given in the bid upon which this contract is founded, is hereby designated as the place where all notices, letters and other communications shall be served, mailed or delivered. It is further agreed that any notice, letter or other communication addressed to the Contractor and delivered at the above-named place, or
40 deposited in a post-paid wrapper in any post-office box regularly maintained by the post-office, shall be deemed sufficient service thereof upon the Contractor. It is also further agreed that the place named may be changed at any time by an instrument in writing, executed and acknowledged by the Contractor and delivered to the President. It is also further agreed that nothing herein contained shall be deemed to preclude or render inoper-

EXHIBIT C-131 (*continued*).

ative the service of any notice, letter or other communication upon the Contractor personally.

Labor law.

10 XLVI. The Contractor agrees that he will comply with the provisions of "The Labor Law." He further agrees that no laborer, workman or mechanic in the employ of the Contractor, sub-contractor or other person doing or contracting to do the whole or a part of the work contemplated by the contract, shall be permitted or required to work more than eight hours in any one calendar day, except in cases of extraordinary emergency, caused by fire, flood or danger to life or property: that the wages to be paid for a legal day's work to all classes of such laborers, workmen or mechanics upon public work or upon any material to be used thereon shall not be less than the prevailing rate for 20 a day's work in the same trade or occupation in the locality where such public work is being constructed. Each such laborer, workman or mechanic shall receive the prevailing rate of wages. This contract shall be void and of no effect, unless the person or corporation, making or performing the same shall comply with the provisions of section 222 of the Labor Law.

No estoppel.

30 XLVII. The City shall not, nor shall any Department or officer thereof be precluded or estopped by any return or certificate made or given by the President, any Engineer or other officer, agent or appointee of The City under any provision of this contract from at any time (either before or after the final completion and acceptance of the work and payment therefor pursuant to any such return or certificate) showing the true and correct amount, quality and character of the work done and materials furnished by the Contractor, or any other person under this contract, or from showing at any time that any such return or certificate is untrue and incorrect or improperly made in any 40 particular, or that the work and materials, or any part thereof do not in fact conform to the contract; and The City shall not be precluded or estopped, notwithstanding any such return or certificate or payment in accordance therewith, from demanding and recovering from the Contractor such damages as it may sustain by reason of his failure to comply with the contract.

EXHIBIT C-131 (*continued*).

Understanding of plans and specifications.

10 XLVIII. The Contractor hereby distinctly and expressly declares and acknowledges that, before the signing of this contract, he has carefully read the same, and the whole thereof, together with and in connection with the plan and specifications, and that he has made such examination of this contract and of
20 said plan and specifications, and the location where said work is to be done, and such investigation of the work required to be done, and in regard to the material required to be furnished, as to enable him to thoroughly understand the intention of the same, and the requirements, covenants, agreements, stipulations and restrictions contained in this contract and in said plan and specifications; and distinctly agrees that he will not hereafter make any claim or demand upon The City, based upon or arising out of any alleged misunderstanding or misconception on his part of
the said requirements, covenants, stipulations and restrictions: and that any information given to the Contractor by the Engineer or others as to the quantities in the work, prior to, or during the progress of the work, shall have no bearing or effect whatsoever, upon the total amount of work to be paid for, in the final settlement.

Substitution of sureties.

30 XLIX. Should the Comptroller at any time deem the sureties under the contract to be unsatisfactory he shall notify the Contractor to that effect and the Contractor shall when so notified forthwith submit in substitution new sureties acceptable to the Comptroller. No further payment shall be deemed due or shall be made until the new sureties shall qualify and be accepted by the Comptroller.

Laws 1916, Chap. 478.

40 L. This contract shall be void and of no effect unless the person or corporation making or performing the same shall secure compensation for the benefit of, and keep insured during the life of this contract, the employees engaged thereon, in compliance with the provisions of Chapter 41 of the laws of 1914, known as the Workmen's Compensation Law, and acts amendatory thereof.

EXHIBIT C-131 (*continued*).

IN WITNESS WHEREOF, The President of the Borough of Queens for and on behalf of The City of New York, and Contractor have executed this agreement in triplicate; one part of which is to remain with the President, one other to be filed with the Comptroller of The City of New York, and the third to be delivered to the Contractor.

10

THE CITY OF NEW YORK,

By MICHAEL J. SHUGRUE,

Acting President of the
Borough of Queens.

20

KENNEDY & SMITH, INC.,

Contractor.

By HAMY L. SMITH,

Sec. Treas.

30

The City and State of New York, ss. :
County of Queens

On this 24th day of November, 1924, before me personally came Michael J. SHUGRUE, to me known and known to me to be the Acting President of the Borough of Queens, of the City of New York, the person described as such in and who as such executed the foregoing instrument, and he acknowledged to me that he executed the same as said Acting President for the purposes therein mentioned.

40

JEFFERSON J. REILLY,

Commissioner of Deeds, New York City.

EXHIBIT C-131 (continued).

The City and State of New York, ss.:
County of Queens

10 On this 15th day of November, 1924, before me personally came HARRY L. SMITH, to me known, who, being by me duly sworn, did depose and say that he resides in Flushing, L. I., and is se Secretary and Treasurer of Kennedy & Smith, Inc., the corporation described in, and which executed the foregoing instrument; that he knows the corporate seal of said company; that the seal affixed to the foregoing instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said company and that by like order he thereto signed his name and official designation.

20 JEFFERSON J. REILLY,
Commissioner of Deeds, New York City.

30 KNOW ALL MEN BY THESE PRESENTS, That we Kennedy & Smith, Inc., hereinafter called the "Contractor", and United States Fidelity Guaranty Company, Eagle Indemnity Co. Fidelity and Deposit Co. of M'd., hereinafter called the "Sureties", are held and firmly bound unto The City of New York, in the sum of One hundred fifty thousand DOLLARS, lawful money of the United States of America, to be paid unto THE CITY OF NEW YORK, or to its certain attorneys, successors or assigns; for which payment, well and truly to be made, we and each of us do bind ourselves, and our several and respective heirs, executors, administrators and assigns, jointly and severally, firmly by these presents.

Signed, sealed and dated this 15th day of November, 1924.

40 WHEREAS, The above bounden Contractor, by an instrument in writing, signed by said Contractor and bearing even date with these presents, one part whereof annexed, has contracted with The City of New York, by the President of the Borough of Queens, to furnish all the labor and materials, and to excavate for, build, construct and in all respects complete sewer, etc., in Saul Street, from Blossom Ave. to Cherry Ave., etc., Second Ward, together with all the work incidental thereto, as is fully and at large set forth and described in the contract aforesaid.

EXHIBIT C-131 (continued).

10 NOW, THEREFORE, The condition of the above obligation is such that if the said above bounden Contractor and its, his or their heirs, executors, administrators and assigns, or any or either of them, shall well and truly, and in a good, sufficient and workmanlike manner, perform or cause to be performed the said contract, and each and every of the covenants, promises, agreements and provisions therein contained to be performed by said Contractor, and complete the same within the period therein stipulated, and in each and every respect comply with the conditions therein contained, then this obligation to be void; otherwise, to remain in full force and virtue.

KENNEDY & SMITH, INC. [L. S.]

Contractor.

20 By HAMY L. SMITH, Sec. & Treas.

Sureties:

United States and Guaranty Company,

By C. D. MARSAC,

Attorney-in-fact.

30 Attest: WILLIAM H. ESTWICK,

Attorney-in-fact.

Eagle Indemnity Company,

.....

Attorney-in-fact.

#277329-24

\$50,000.00

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Fidelity and Deposit Company of Maryland,

By LOUIS C. FIELDS,

Attorney-in-fact.

Attest: HELEN PETERSEN,

Attorney-in-fact.

EXHIBIT C-131 (*continued*).

The City and State of New York, ss. :
County of Queens

10 On this 15th day of November, 1924, before me personally came HARRY L. SMITH, to me known, who, being by me duly sworn, did depose and say that he resides in Flushing, L. I., that he is the Secretary and Treasurer of Kennedy & Smith, Inc., the corporation described in, and which executed the above instrument, that he knows the corporate seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said Corporation and that by like order he thereto signed his name and official designation.

JEFFERSON J. REILLY

20 Commissioner of Deeds, New York City.

FUNDS

30 PRESIDENT'S CERTIFICATE

It is hereby certified that the estimated cost of the work and materials required by the within contract is Two hundred thirty seven thousand one hundred fifty DOLLARS (\$237,150.00), and is chargeable to the Street Improvement Fund of The City of New York.

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MICHAEL J. SHUGRUE,

Acting President of the Borough of Queens.

THE CITY OF NEW YORK, November 24, 1924.

Funds O. K. R.

EXHIBIT C-131 (continued).

SPECIFICATIONS

TRENCHES

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Length of trench.

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1. Unless otherwise directed or permitted not more than 200 feet of any trench in advance of the end of the built sewer shall be open at any time, and unless written permission to the contrary is given, the trench shall be excavated to its full depth for a distance of at least 20 feet more than the minimum length of sewer permitted to be laid in it. (See paragraphs 127 and 154.) Trenches for house connection drains shall not be open on both sides of the street at the same time, unless permission has previously been given to close the street. Unless otherwise directed each trench for house connection drains shall be fully excavated for its entire length before any pipes are laid therein.

Sheeting and bracing.

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2. Where necessary the sides of the trenches and excavations shall be supported by adequate sheeting and bracing. Steel sheeting may be used only where shown on the plan or directed. Sheet piling will be paid for only when left in place by written order, in which event the amount left in place will be paid for at the contract price for such material. Unless specially permitted sheeting against which concrete is placed shall not be removed and will not be paid for. The Contractor will be held accountable and responsible for the sufficiency of all sheeting and bracing used, and for all damage to persons or property resulting from the improper quality, strength, placing, maintaining or removing of the same.

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Sheeting in soft material.

3. Where the material to be excavated is of such a character as to render it necessary, the sheeting shall be closely driven and to such depth below the bottom of the sewer as may be directed.

EXHIBIT C-131 (*continued*).

Tunneling.

4. All work shall be done in open trenches or excavations; no tunneling shall be done except with the consent of the Engineer.

10 Trees and stumps.

5. The Contractor shall grub and clear the surface over the trenches and excavations of all trees and stumps and remove the same from the work.

Material to be disinfected.

6. If required, any or all of the excavated material shall be satisfactorily disinfected or deodorized or immediately removed from the work.

20 Roadway, sidewalks, etc., to be kept clear.

7. The excavated material and materials of construction shall be so deposited, and the work shall be so conducted as to leave open and free for traffic all crosswalks, a space on each sidewalk not less than one-third the width of such sidewalk and unless permission is given to the contrary a roadway not less than 8 feet wide for the free passage of vehicles. Street hydrants, water gates, fire alarm boxes and letter boxes shall be kept accessible for use. During the progress of the work the Contractor shall maintain such crosswalks, sidewalks and roadways in satisfactory condition, and the work shall at all times be so conducted as to cause a minimum inconvenience to public travel, and permit of safe and convenient access to private and public property along the line of the work.

Surplus material.

40 8. If all of the excavated material cannot be stored on the street in such a manner as to maintain the traffic conditions hereinbefore specified, the surplus shall be removed from the work and stored. After the construction of the sewer, so much of this material as is of satisfactory quality and necessary for the purpose shall be brought back and used for backfilling the trench.

EXHIBIT C-131 (*continued*).

Fence.

9. Where necessary a suitable fence shall be placed along the sides of the trench to keep the streets safe for traffic.

Temporary bridges.

10 10. Where any crosswalk is intersected by the trench, it shall be temporarily replaced by a substantial timber bridge not less than 3 feet wide, with side railings. Where required, suitable temporary bridges for vehicles shall be provided and maintained across the trench.

Disposal of water from trenches.

20 11. The Contractor shall at all times during the progress of the work keep the trenches and excavations free from water. The water from the trenches and excavations shall be disposed of in such a manner as will not cause injury to the public health, nor to public or private property, nor to the work completed or in progress, nor to the surface of the streets, nor cause any interferences with the use of the same by the public.

Cost to be covered.

30 12. The cost of all labor required to be done and all materials required to be furnished in the performance of all the work specified in paragraphs 1 to 11 inclusive, except as otherwise provided, shall be covered by all the contract prices for all the items for which there are contract prices.

EARTH EXCAVATION.

40 13. Earth excavations shall include the removal of all material other than ledge rock.

Width of trench for sewers, etc.

14. The minimum widths of trenches in earth for house connections not over 18 inches in diameter, shall be such as to give a clearance inside the sheeting of 8 inches on each side of the pipe, exclusive of suprs and hubs. The minimum widths of

EXHIBIT C-131 (*continued*).

trenches in earth, inside the sheeting, for other sewers shall be the greatest external width of the structures, including the necessary forms, to be built therein.

- 10 15. Where a riser, manhole or other appurtenance or the foundation therefor extends beyond the exterior line of the sewer or its foundation, the minimum excavation in earth, required for the same shall be that contained in a prism with vertical sides and a horizontal section equal to the smallest rectangle which will enclose such appurtenance and its foundation.

Depth of trenches.

- 20 17. The trenches shall be excavated to the depths required for the foundations of the sewers and appurtenances shown on the plan, and where the conditions are such as to make it necessary, to such additional depths as may be directed. Where pipe is laid without a cradle the bottom of the trenches shall be excavated to fit the lower third of the pipe, and excavations shall be made to receive the hubs. All irregularities in the bottoms of the trenches shall be filled up to the required grade with suitable material.

Cost to be covered.

- 30 18. The cost of all labor required to be done and all materials required to be furnished in the performance of all the work specified in paragraphs 15 to 17 inclusive, except as otherwise provided, shall be covered by all the contract prices for all the items for which there are contract prices.

BACKFILLING.

Backfilling around sewers, etc.

- 40 29. Unless otherwise specified or directed, all trenches and excavations shall be backfilled immediately after the structures are built therein. For a depth of at least 2 feet over the top of the sewers and house connections, the material for backfilling trenches as excavated shall be clean earth, sand or rock dust. It shall be carefully deposited in uniform layers not exceeding 6 inches in depth, and unless otherwise permitted, each layer shall be carefully and solidly tamped with appropriate tools in such a manner as to avoid injuring or disturbing the completed work.

EXHIBIT C-131 (*continued*).

Backfilling for remainder of trench.

10 30. Backfilling for the remainder of the trenches as excavated, shall be approved material free from organic matter and containing no stones over 10 inches in their largest dimensions. Any stones shall be so distributed through the mass that all interstices are filled with the fine material. This backfilling shall be deposited as directed, and unless otherwise permitted, shall be spread in layers and solidly tamped.

Backfilling around basin manholes, etc.

20 31. Backfilling within 2 feet of manholes, house connection drains and other structures shall be of the same quality as that specified in paragraph 29. It shall be uniformly deposited on all sides and unless otherwise permitted, solidly tamped in such a manner as to avoid injuring the structures or producing unequal pressures thereon.

Puddling.

32. Backfilling shall, if required, be flooded or puddled with water as the work progresses, instead of being tamped.

30 33. When sheeting is drawn, all cavities remaining in or adjoining the trench shall be solidly filled. When sheeting is left in place all cavities behind such sheeting shall be solidly filled as directed.

Deficiency of filling.

40 34. Unless otherwise shown on the plan, the trenches shall be backfilled to the height of the surface of the ground as it existed at the commencement of the work. Should there be a deficiency of proper material for the purpose, the Contractor shall furnish and place such additional material as may be required.

Temporary bulkheads.

35. For retaining the backfilling only temporary bulkheads will be allowed over sewers, basin connections and drains. Such bulkheads shall not be of stone, and they shall be removed as the trenches are backfilled.

EXHIBIT C-131 (*continued*).

Curves, branches, etc., not to be covered.

36. House and sewer connections and intersections, ends of sewers and branches shall not be covered until the Engineer shall have inspected, measured and located the same, and given permission to backfill the trenches over them.

10 Removal of surplus material.

37. As the trenches are backfilled, the Contractor shall remove all surplus material and regrade and leave free, clear and in good order all roadways and sidewalks. During the progress of and until the final acceptance of the work, he shall maintain in good and safe condition the surface of the street over all the trenches, and promptly fill all depressions over and adjoining the trenches caused by settlement of the backfilling. In case of failure or neglect on the part of the Contractor to comply with the requirements of this paragraph within 24 hours after the service upon him of a written notice so to do, the President may furnish all materials and do all work required, and the cost thereof will be charged to the Contractor and deducted from any moneys due or to become due him under this contract. All surplus material or any part thereof shall, if required, be deposited as directed on the streets and avenues within the limits of this contract where the same are below grade, and in such a manner as to leave the surfaces of the filled material even.

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30 Cost covered.

38. The cost of all labor required to be done and all materials required to be furnished in the performance of all the work specified in paragraphs 30 to 37, inclusive, shall be covered by all the contract prices for all the items for which there are contract prices.

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CEMENT.

39. All cement used in the work shall be a high grade Portland cement of a well-established and approved brand. It shall be the product obtained by finely pulverizing clinker produced by calcining to incipient fusion, an intimate mixture of properly proportioned argillaceous and calcareous substances,

EXHIBIT C-131 (*continued*).

with only such additions subsequent to calcining as may be necessary to control certain properties. Such additions shall not exceed 3 per cent, by weight, of the calcined product.

Specific gravity; weight.

10 40. The cement shall have a specific gravity of not less than 3.10 after being thoroughly dried at 212° F. It shall weigh not less than 380 pounds net, to the barrel, 4 bags of 95 pounds each being considered equivalent to a barrel.

Fineness.

20 41. The cement shall be dry, finely ground, of uniform color and free for lumps. It shall leave a residue of not more than 8 per cent. by weight, when passed through a No. 100 sieve, and not more than 25 per cent. when passed through a No. 200 sieve.

Tensile strength.

42. Standard briquettes shall develop within the periods specified, tensile strength not less than that shown in the following table.

Neat Cement:

30	24 hours	175 pounds per sq. in.
	7 days (1 day in moist air, 6 days in water)	500 pounds per sq. in.
	28 days (1 day in moist air, 27 days in water)	600 pounds per sq. in.
	Mortar consisting of 1 part cement and 3 parts of Standard Ottawa Sand, by weight:	
	7 days (1 day in moist air, 6 days in water)	180 pounds per sq. in.
40	28 days (1 day in moist air, 27 days in water)	225 pounds per sq. in.

The average of the tensile strengths developed at each age by the briquettes in any set made from one sample will be considered the strength of the sample at that age, excluding any results that are manifestly faulty. The average strength of briquettes at 28 days shall be greater than the average strength at 7 days, and if

EXHIBIT C-131 (*continued*).

tests are made after 28 days the strength shall be not less than that at 28 days.

Soundness.

43. Pats of neat cement when tested for constancy of volume or soundness shall remain firm and hard and show no sign of checking, cracking, distortion or disintegration.

Setting.

44. Unless otherwise required, the cement shall not develop initial set in less than 30 minutes, and shall develop final set in not less than 1 hour nor more than 10 hours. Quick-setting cement of an approved brand shall, if required, be kept on the work in sufficient quantity to provide for any contingency requiring the use of the same.

Testing.

45. The cement will be subjected to such tests as the Engineer may deem necessary, and such tests will be made in accordance with the methods recommended by the Committee on Uniform Tests of Cement of the American Society of Civil Engineers, except that the time of setting will usually be determined by means of the Gillmore needles. In case of dispute as to the time of setting, this test will be made by means of the Vicat needle.

Retesting.

46. Any cement which shall have been kept in storage after testing for a sufficient time to warrant it, shall be retested. Any prior acceptance shall be considered void and the acceptance or rejection of the cement shall depend upon the results of the latest tests.

40 Approval of brand may be rescinded.

47. The Engineer may at any time rescind the approval of any brand of cement that develops objectionable qualities.

Samples.

48. The Contractor shall notify the Engineer of the arrival of cement on the work, and furnish such facilities as may

EXHIBIT C-131 (*continued*).

be required for obtaining samples for testing. Samples will be taken so as to fairly represent the material. The number of packages sampled and the quantity to be taken from each will depend upon the importance of the work and the number of tests to be made.

10 Delivery and storing.

49. Cement shall be delivered on the work in barrels or approved bags of uniform size, with the brand and the name of the manufacturer plainly marked thereon; it shall be immediately stored in a dry place and carefully protected from the weather. A sufficient stock of cement shall be kept on the work in advance of the necessity for its use to permit of the making of the required seven day tests. Except by written permission, no cement shall be used before it has been tested and accepted, and any concrete or masonry which may have been made under such permission with cement that is subsequently rejected, shall be removed and replaced by the Contractor, at his own expense, with concrete or masonry made of accepted cement.

Cost to be covered.

50. The cost of furnishing, storing and incorporating cement in the work, and the cost of samples required for testing, shall be covered by the contract prices for the structures or classes of work in connection with which the cement is used.

MORTAR.

51. All mortar used in the work, unless otherwise specified, shall be composed of 1 volume of cement, as in the original package, and $2\frac{1}{2}$ volumes of sand. Where required, mortar of cement and sand in other proportions or mortar of neat cement shall be used as directed.

Sand.

52. Sand shall be composed of grains of clean sharp quartz, not softer than hard limestones. It shall be moderately coarse and preferably made up of grains of varying size not exceeding one-quarter ($\frac{1}{4}$) inch producing a mass with low per-

EXHIBIT C-131 (*continued*).

centage of voids. It shall not contain, in all, more than five (5%) per cent, by volume of clay, loam, mica, scales, silt, or other objectionable inorganic matter, nor more than one (1%) per cent. of organic matter.

10 Tests may also be made of the cement and sand used in the proportions of one (1) part cement to three (3) parts sand, and these tests must show at least 70 per cent. of the strength of the mortar made with the cement and standard sand, or the sand may be rejected.

Mixing.

20 53. Mortar shall be mixed in a suitable box or on a tight platform, and never upon the pavement or ground. The cement and sand shall be thoroughly mixed dry, until the mixture has a uniform color. Clean, fresh water shall then be added and the mass worked until a mortar, which is uniform and of the required consistency is produced. The mortar shall be mixed in no greater quantity than is required for the work in hand, and any that has set sufficiently to require retempering shall not be used.

Freezing weather.

30 54. The mixing and use of mortar in freezing weather shall be subject to the same requirements as hereinafter specified for mixing and placing concrete under similar conditions.

Cost covered.

55. The cost of all labor and materials required to furnish and place the mortar in the work, as specified, shall be covered by the contract price for the structure or class of work in connection with which the mortar is used.

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CONCRETE.

Class A concrete.

56. Class A concrete shall be made of 1 part of cement, 2 parts of sand and 4 parts of broken stone or gravel.

EXHIBIT C-131 (*continued*).

Broken stone or gravel.

10 57. Broken stone for Class A concrete shall be approved trap rock, dense fine-grained blue limestone or granite broken into roughly cubical or pyramidal fragments. Broken stone which contains dust, loam, clay, organic matter or other improper substances shall not be used. Broken stone for Class A concrete shall be the run of the crusher that will pass through a screen with circular openings $1\frac{1}{4}$ inches in diameter and shall be retained on a screen with openings $\frac{1}{8}$ -inch in diameter. Gravel shall be equal in quality to North Shore Long Island gravel, shall be clean and sound, and shall be of the sizes herein specified for broken stone.

Measuring ingredients.

20 58. For the purpose of determining the proportions of the materials for concrete, each bag of cement will be considered as containing $\frac{9}{10}$ cubic foot, and the other ingredients shall be measured by an approved method.

Water.

59. Only clean fresh water shall be used for concrete.

Mixing.

30 60. Unless permitted to be mixed by hand, concrete shall be mixed in approved mechanical batch mixers, so constructed and operated that the ingredients of the concrete may be accurately measured and thoroughly mixed. Enough water shall be added during the mixing to bring the concrete to the required consistency, which generally shall be such that the concrete may be poured into place without causing the separation of the stones from the mortar. When concrete is mixed by hand the broken stone or gravel shall be spread on a tight platform in a bed about
40 $\frac{3}{4}$ inches deep and shall be thoroughly wetted. The cement and sand shall be mixed dry on a suitable platform, until the mixture has a uniform color. This mixture shall be spread evenly on the bed of wet stone, water added, and the entire mass turned until each piece of stone is entirely coated with mortar and a concrete produced which is uniform and of the consistency herein specified for machine mixed concrete. When a comparatively dry concrete is required it shall be mixed to such consistency as may be directed.

EXHIBIT C-131 (*continued*).

Placing concrete.

61. Concrete shall be mixed only in such quantity as is required for the work in hand, and any that has set sufficiently to require retempering shall not be used. Any concrete in which the water has separated from the solid matter shall be satisfactorily remixed before being placed. The concrete shall be so deposited in the work as to prevent the separation of the stone from the mortar. It shall be deposited in as nearly a continuous operation as practicable and shall be tamped or spaded with suitable tools to expel air bubbles and produce a dense and compact mass. When the operation of placing concrete is interrupted the concrete in the work, shall, if required, be confined by suitable temporary forms or bulkheads. When concrete is to surround reinforcing metal, structural steel, or wire netting, it shall be so deposited as to work closely around such material. When a comparatively dry concrete is used it shall be deposited in horizontal layers not exceeding 6 inches in depth and solidly tamped.

Joining old and new concrete.

62. When fresh concrete is to be laid on or adjoining concrete already set, the surface of the latter shall be thoroughly cleaned, washed, and roughened, and coated with a grout of neat cement before the fresh concrete is deposited.

30 Forms and centres.

63. The Contractor shall provide all necessary forms and centres for shaping concrete wherever used. They shall be true to the required shapes and sizes, strong enough and so secured in place as to withstand all operations incidental to placing the concrete, and watertight, and the faces against which the concrete is to be placed shall be satisfactorily smooth and clean. Timber used in forms and centres for exposed faces of concrete shall be seasoned stock. Unless otherwise permitted, those surfaces of forms and centres which will be in contact with concrete shall be coated as directed with an approval lubricant; when no lubricant is required such surfaces shall be thoroughly wetted just before the concrete is placed.

EXHIBIT C-131 (*continued*).

Removal of forms and centres.

64. The forms and centres shall be left in place until the concrete has set sufficiently to permit their removal without danger to the structure, and until so much of the backfilling or embankment as may be directed has been put in place. No forms or centres shall be struck or removed until permission to do so has been given.

Exposed surfaces.

65. Special care shall be used to secure a smooth and uniform finish to the surfaces of concrete which will be exposed in the completed structure. Immediately after the removal of the forms such surfaces, if uneven, shall be rubbed smooth to a uniform and satisfactory finish. All exposed edges of concrete shall be neatly rounded as directed, and if any voids, projections or other imperfections be found, such defects shall at once be corrected by tooling, cutting out and filling with mortar, or otherwise, as directed.

Depositing concrete under water.

66. Whenever it becomes necessary to place concrete under water, it shall be deposited by means of drop-bottom buckets or other approved method. Concrete so deposited shall be carefully spread without tamping.

Freezing weather.

67. In freezing weather, until the temperature falls to 24 degrees Fahrenheit the water used for concrete shall, if directed, be heated to an approved temperature, and if directed, one per cent. by weight of salt shall be added to the water for each degree Fahrenheit that the temperature of the air is below 32 degrees Fahrenheit. The other materials for the concrete shall be heated sufficiently to remove all frost and ice. No concrete shall be laid when the temperature of the air is below 20 degrees Fahrenheit.

Protection.

68. Concrete shall be allowed to set for such time as may be directed before being worked or walked upon, or before filling, backfilling or other material is placed upon or against it. It

EXHIBIT C-131 (*continued*).

shall not be flooded with water until it has sufficiently set. Concrete shall be carefully protected from injury, from freezing and from the drying effects of the sun and wind by covering it with canvas, bagging, hay or other suitable and approved materials. Such protection shall be placed as soon as the concrete is in condition to receive it, and except in freezing weather, the covering as well as the concrete shall be kept wet for such time as may be directed.

Prices to cover.

69. The cost of all concrete and the requirements specified in connection therewith shall be covered by the contract price for the structure in connection with which it is used.

BRICK MASONRY.

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Quality of bricks.

70. All bricks used in the work shall be sound and hard burned throughout, and of uniform size and quality. If required the bricks shall be culled immediately after they are brought on the work and all bricks which are warped, cracked or of improper quality shall be at once removed. The proportion of bats permitted will be determined according to the character and location of the work in which they are to be used.

30

How laid.

71. Bricks shall be satisfactorily wet when being laid and each brick shall be laid in mortar so as to form full bed, end and side joints in one operation. The joints shall be not wider than $\frac{3}{8}$ inch, except when the bricks are laid radially, in which case the narrowest part of the joint shall not exceed $\frac{1}{4}$ inch. The bricks shall be laid in a workmanlike manner, true to line, and wherever practicable the joint shall be carefully struck and pointed on the inside. Brickwork shall be laid with a satisfactory bond, and as it progresses shall be racked back in courses, unless otherwise permitted.

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EXHIBIT C-131 (continued).

BRICKWORK.

Protection.

72. All fresh brickwork shall be carefully protected from freezing and from the drying effects of the sun and wind, and if required, it shall be sprinkled with water at such intervals and for such a time as may be directed. Brickwork shall be protected from injuries of all sorts, and all portions which may become damaged or may be found defective shall be repaired, or if directed, be removed and rebuilt.

Freezing weather.

73. In freezing weather bricks shall be heated sufficiently to remove all ice and frost.

Cost of Brick Masonry.

74. The cost of all brick masonry and the requirements specified in connection therewith shall be covered by the contract price for the structure in connection with which it is used.

STRUCTURAL STEEL.

Quality.

75. Structural steel shall be medium steel and rivet steel made by the open hearth process and shall conform to the latest revised Standard Specifications for Structural Steel for Buildings adopted by the American Society for Testing Materials, and such tests as may be required shall be made in accordance therewith and at the places hereinafter specified. The chemical and physical properties of the steel shall be as follows:

Properties considered Medium steel Rivet steel.

Phosphorus (maximum)	0.06 per cent.	0.06 per cent.
Ultimate tensile strength, pounds		
per sq. inc.	55,000-65,000	48,000-58,000
Yield point (minimum) pounds		
per sq. in.	1/2 ult. tens. str.	1/2 ult. tens. str.

EXHIBIT C-131 (continued).

Elongation, per cent. in 8 inches (minimum)	1,400,000	1,400,000
	ult. tens. str.	ult. tens. str.
Character of fracture	Silky	Silky
Cold bend without fracture ...	180° to diameter of 1 thickness	180° flat

10

Finish.

76. All finished material shall be free from injurious seams, flaws and cracks, and have a workmanlike finish.

Variation in weight.

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77. When steel is inspected at the mill or shop, all pieces (except plates), which vary in weight more than 2½ per cent. from that specified, shall be rejected; when steel is not inspected until it is delivered on the work, such variation in weight will be sufficient cause for rejection when in the judgment of the Engineer the safety of the work will be impaired thereby.

Workmanship.

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78. All structural steel shall be in accordance with the plan and approved shop drawings. All details not shown on the plan, and all workmanship and finish shall be equal to the best current practice in similar work for buildings.

Anchor bolts.

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79. Anchor bolts and expansion bolts shall be furnished where required and set in place as directed. When holes are drilled in masonry or concrete for such bolts, the holes shall be washed clean and the bolts shall be firmly embedded in a mortar composed of equal parts of cement and sand, unless other materials is shown on the plan.

Melt numbers.

80. Test specimens and every finished piece of steel shall be stamped with melt or blow number, except that small pieces may be shipped in bundles securely wired together, with the melt or blow number on a metal tag attached.

EXHIBIT C-131 (*continued*).

Tests and inspections.

10 81. The required tests and inspections of structural steel shall, if directed, be made at the mills and shops by The City's authorized inspector. The Contractor shall notify The City as to the mills and shops which are to supply the steel, sufficiently in advance to enable The City to arrange for such tests and inspections and the mills and shops shall afford every facility for making the same.

Mill certificates.

82. If it is decided not to make The City's tests and inspections at the mills, then mill certificates showing the properties of each melt of which the steel is made will be accepted for consideration.

20 Shipping invoices.

83. The Contractor will be required to furnish complete copies of shipping invoices with each shipment of steel.

Certificates, etc., for information only.

30 84. Steel will not be accepted until the required inspector's reports or mill certificates are received. All tests, inspections, reports and certificates are for the information of the Engineer, and he shall not be precluded on account thereof from requiring or making any further tests which he may deem necessary.

Shop drawings.

40 85. The Contractor shall prepare complete and accurate shop drawings of all steel work, and no shop work shall be done until such drawings shall have been approved. The Contractor shall furnish the Engineer with 3 complete sets of prints of the approved shop drawings.

Painting.

86. All steel shall be thoroughly cleaned of scale, rust, oil and dirt, and unless otherwise directed, those parts which are not to be bedded in concrete shall be painted with a priming

EXHIBIT C-131 (*continued*).

coat of the best red lead and linseed oil or such other paint of equivalent value as may be directed. After erection, the metal which will be exposed in the finished work shall be evenly painted with 2 coats of approved paint. No painting shall be done on wet surfaces.

Measurement.

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87. The amount of structural steel paid for as such will be all structural steel placed in the work in accordance with the plan or directions, except any excess greater than $2\frac{1}{2}$ per cent. above the weight required, and except such structural steel shown on the plan as being part of structures for which there are contract prices, and the cost of which is hereinafter specified to be covered by the contract prices for such structures.

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Price to cover.

88. The contract price for structural steel shall cover the cost of all labor and materials required to furnish, fabricate, erect and paint the same, to furnish all test pieces, to prepare and furnish prints of shop drawings, and to drill holes for and set anchor and expansion bolts, where required, all as specified.

STEEL REINFORCEMENT BARS.

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Shape.

89. Steel bars for reinforcing concrete shall be of such shape as to afford an approved mechanical bond with the concrete at frequent intervals and to insure intimate contact between the steel and concrete.

Samples.

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90. The Contractor shall indicate the type of bars proposed to be used, and if required shall furnish samples thereof, and he is cautioned not to place the order for the bars until the type has been approved.

Size.

91. Each bar shall have a net cross sectional area equivalent to that designated on the plan or required, or it shall be

EXHIBIT C-131 (*continued*).

the commercial size of the approved type of bar having a net cross sectional area next larger than that designated or required.

Variation in weight.

92. Reinforcement bars will be rejected if their actual weight varies more than 5 per cent. from their theoretical weight, as shown by the manufacturer's tables.

Quality.

93. All steel for reinforcement bars shall be made by the open hearth process, and shall conform to the latest revised Standard Specifications for Steel Reinforcement Bars adopted by the American Society for Testing Materials, and such tests as may be required, shall be made in accordance therewith, and at the places hereinafter specified. The chemical and physical properties of the steel shall be as follows:

Properties Considered	Structural Steel Grade		Cold Twisted Bars
	Plain Bars	Deformed Bars	
Phosphorus, max.			0.10
Open Hearth	0.05	0.05	0.05
Bessemer	0.10	0.10	
Ultimate Tensile Strength, pounds per sq. in.	55,000-70,000	55,000-70,000	Recorded only
Yield Point, minimum pounds per sq. in.	33,000	33,000	55,000
Elongation, minimum per cent. in 8 inches	1,400,000	1,250,000	5 per cent.
	tens. str.	tens. str.	
Cold bend without fracture:			
Bars under ¾ in. in diam. or thickness	180° to diam. of 1t.	180° to diam. of 1t.	180° to diam. of 2t.
thickness and over	180° to diam. of 1t.	180° to diam. of 2t.	180° to diam. of 3t.

t : Nominal thickness or diameter of bar.

94. Reinforcement bars shall be rolled from billets of new steel; they shall be straight and free from seams, flaws, cracks and imperfections of all kinds.

EXHIBIT C-131 (*continued*).

95. Test pieces 18 inches long may be cut from any of the bars delivered on the work, and the failure of any test piece to meet the specified requirements, or the failure of any bar when being bent, will be sufficient cause for the rejection of all steel from the melt from which the test piece or bar was made.

10 96. Bending sheets for steel reinforcement shall be furnished, if required, in which case the reinforcement bars shall not be bent until such bending sheets have been approved.

Delivery and Protection.

20 97. Bars shall be delivered in bundles, to each of which shall be securely wired a metal tag with the number of the melt from which the bars were made stamped thereon. The bars shall be protected at all times from mechanical injury and from the weather and when placed in the work they shall be free from dirt, scale-rust, paint and oil. Bars which are not to be embedded in concrete within a short time after being placed in the work shall, if directed, be immediately coated with a thin grout of equal parts of cement and sand.

Cutting and bending.

30 98. The bars shall be bent to the shapes shown on the plan and in conformity with approved templets. When bars are cut and bent on the work, the Contractor shall employ competent men and shall provide the necessary appliances for the purpose.

Placing.

99. All bars shall be as long as can be conveniently used, accurately bent, placed, spaced and joined as shown or directed, and they shall be securely held in their required positions by approved devices until the concrete has been placed around them.

40 Cost covered.

100. The cost of all steel reinforcement bars and the requirements specified in connection therewith shall be covered by the contract price for the structure in connection with which it is secured.

EXHIBIT C-131 (*continued*).

WROUGHT IRON.

Quality.

- 10 • 101. Wrought iron shall be double rolled, tough, fibrous and uniform in quality. It shall be thoroughly welded in rolling and be free from surface defects. It shall have an ultimate tensile strength of at least 48,000 pounds per square inch, an elongation of at least 20 per cent. in 8 inches, and a fracture wholly fibrous. Specimens shall bend cold, with the fiber, through 180 degrees around a diameter equal to the thickness of the piece tested. When nicked and bent the fracture shall be at least 90 per cent. fibrous.

Galvanizing.

- 20 102. Exposed wrought iron shall be thoroughly and uniformly galvanized.

Cost covered.

103. The cost of all wrought iron and the requirements specified in connection therewith shall be covered by the contract price for the structure in connection with which it is used.

30

IRON CASTINGS.

Quality.

104. Iron castings shall be of the best foundry pig iron, gray, tough and free from cold shuts, blow holes and other imperfections. The weight shall be conspicuously painted by the manufacturer with white oil paint on each casting. The castings shall be thoroughly coated with coal tar pitch varnish.

40

Cost covered.

105. The cost of all labor and materials required to furnish, coat and place the castings as specified, shall be covered by the contract price for the structure or class of work in connection with which they are used.

EXHIBIT C-131 (*continued*).

TIMBER.

Quality.

106. All timber except sheeting shall be long leaf yellow pine, unless otherwise specified, and shall be sound and free from shakes, cracks, large or loose knots, and other defects impairing its strength or durability. It shall be squared to the required dimensions throughout its entire length.

Placing.

107. Timber shall be placed where shown on the plan or directed, and where necessary shall be firmly spiked or bolted with approved nails, spikes or bolts of such sizes and lengths and at such places and in such numbers as shown on the plan, or as directed.

Measurement.

108. The amount of timber to be paid for as such will be all timber placed in the work in accordance with the plan or directions, except piles and timber sheeting, and except such timber shown on the plan as being part of structures for which there are contract prices, and the cost of which is hereinafter specified to be covered by the contract prices for such structures. The amount paid for will not include timber used for forms, templets, centers, scaffolds, bridges (unless otherwise specified), fences, guard rails or other temporary structures, the cost of all of which shall be covered by all the contract prices for all the items for which there are contract prices. No deduction will be made in the measurement of timber flooring on account of the spaces occupied by the piles.

Price to cover.

109. The contract price, for timber shall cover the cost of all labor and materials required to furnish, work, place and secure the same, as specified.

EXHIBIT C-131 (continued).

TIMBER SHEETING.

Quality, placing, etc.

10 110. Timber sheeting and the rangers and braces for the same shall be of a satisfactory quality of timber and of sufficient size and strength to adequately support the sides of the trenches and excavations. Sheeting shall be driven in such a manner as to avoid cracking and splitting, and if required for the proper prosecution of the work, shall be tongued and grooved.

When paid for.

20 111. Timber sheeting will be paid for as such only when left in place by written order. When sheeting is left in, so much of it below the surface of the ground as may be directed shall be cut off.

Measurement.

30 112. The amount of timber sheeting to be paid for as such will be all timber sheeting, rangers and braces left in place by written order, and will not include sheeting, rangers and braces left in place without such order, nor sheeting left in place because concrete is placed against it, nor that part of the sheeting that extended above the ground after having been driven, the cost of all of which shall be covered by all the contract prices for all the items for which there are contract prices. Inclined piling or planking at the bottom of a trench if used to prevent the caving in of the excavation and in such a position that it cannot be drawn, shall be paid for at the price bid for sheet piling.

Price to cover.

40 113. The contract price for timber sheeting shall cover the cost of all labor and materials required to furnish, place and cut off the sheeting, rangers and braces, as specified, and shall also cover the cost of all excavation necessary to place the same.

PILES.

Quality.

114. Piles shall be of white oak, spruce or yellow pine, sound and free from splits, shakes and other imperfections im-

EXHIBIT C-131 (*continued*).

pairing their strength or durability. They shall be straight, taper uniformly from butt to point and if required shall be barked. Unless otherwise shown on the plan, they shall conform to the following dimensions:

Dimensions.

10	Length below cut-off.	Minimum diameter at point.	Minimum diameter at cut-off.
	Less than 20 feet	6 inches.	10 inches.
	20 feet to 25 feet	6 inches.	11 inches.
	26 feet to 35 feet	6 inches.	12 inches.
	36 feet to 45 feet	6 inches.	13 inches.
	46 feet and over	6 inches.	14 inches.

20 115. To determine the necessary length of piles to be used in the work, the Contractor may be required to drive test piles.

116. Each pile less than 60 feet long shall be in one piece; piles longer than 600 feet may be spliced in an approved manner. The small ends of piles shall be pointed, and, if required, shall be shot with approved iron shoes. The butt ends of piles shall be cut off square and protected with approved iron bands while driving.

30 How driven.

117. Piles shall be driven without the use of a follower, unless specially permitted. Pile heads that become split or broomed shall be cut off and the driving continued. Any pile which splits, breaks or drives unsatisfactorily will not be paid for, and it shall be withdrawn or abandoned and another driven in place of it. After being driven, piles shall be accurately cut off at the required elevation.

40 Bearing piles.

118. Bearing piles shall be driven vertically and shall be spaced as shown on the plan or as directed. They shall be driven to a satisfactory refusal by a hammer having a concave face and weighing not less than 2,000 pounds nor more than 2,500 pounds. Refusal in general will be indicated by a penetration not exceeding 1 inch per blow under the last 6 blows of the hammer

EXHIBIT C-131 (*continued*).

falling 15 feet. If steam hammer pile drivers are used, the piles shall be driven so that their bearing power shall not be less than that of piles driven as herein specified. When it is shown on the plan or specified that piles are to be driven to a certain required depth, they shall be driven, if necessary, by the use of a water jet or by any other approved method.

10 Brace piles.

119. Where shown on the plan, brace batter or spur piles shall be driven at the inclination shown or directed, to a satisfactory refusal, and the tops shall be framed, bolted or strapped to adjoining piles or to each other as shown on the plan, or directed.

Measurement.

20 120. The amount of piles to be paid for will be the total length below cut-off of all piles remaining in the work in accordance with the plan or directions, and the total length of all piles used only as test piles. Piles driven for temporary use will not be paid for.

Price to cover.

30 121. The contract price for piles shall cover the cost of all labor and materials required to furnish, drive and cut off the same as specified, of fastening brace piles, and of furnishing and placing all shoes, bands, bars, straps, bolts and other fastenings required.

CONCRETE SEWERS.

(Type "A" or Sewer Department Standard.)

Inverts.

40 122. Inverts of concrete sewers shall be formed between transverse templets and shall be screeded. The templets shall be placed at such intervals as to divide the invert into sections of suitable size for convenient construction, and unless otherwise permitted the concrete shall be deposited in alternate sections and allowed to set before the remaining sections are built. Unless otherwise shown on the plan, a layer of mortar not less than $\frac{1}{2}$

EXHIBIT C-131 (*continued*).

10 inch thick shall be spread evenly and to a smoothly finished surface upon the concrete of the invert as soon as such concrete is in place. Where the radii of inverts are too short to permit screeding between templets, the inverts shall be shaped by means of suitable forms, which shall be removed as soon as the concrete has a sufficient set, and if required, the surfaces of inverts shall be floated or troweled to a smooth finish. The concrete for inverts shall be deposited continuously for their entire cross sections and for such longitudinal distances as may be convenient. Inverts shall be carefully protected from all injury during progress of the work.

Side walls.

20 123. Concrete in the side walls of sewers shall be deposited continuously to the height directed and for such longitudinal distances as may be convenient.

Roofs.

30 124. Concrete in the roofs of sewers shall be deposited continuously for the full depths and widths of the roofs and for such longitudinal distances as may be convenient. The outer surfaces of roofs shall be finished with an excess of mortar and left true and smooth. They shall be covered and protected as specified in paragraph 68, and such covering shall remain thereon until the backfilling or embankment is placed.

Bulkheads.

40 125. While being deposited the concrete for sewers shall be confined by temporary, vertical bulkheads placed at such intervals longitudinally as may be required for convenient working. The bulkheads shall be so designated as to give an approved shape to the end of the section of concrete under construction, shall be satisfactorily secured in place before the concrete is deposited, and shall remain in place until the concrete has set sufficiently to hold its shape.

Reinforcement.

126. Where shown on the plan concrete sewers shall be reinforced with metal of the dimensions and shapes shown, and of the quality and in the manner hereinbefore specified.

EXHIBIT C-131 (*continued*).

Minimum length of invert.

127. Unless otherwise permitted or ordered, not less than 16 feet of foundation or invert for concrete sewer shall be built at one operation.

10 Connections.

128. Connections and branches for lateral sewers and basin manholes shall be built in where shown on the plan or where directed. Such connections and branches shall be closed with bulkheads of brick masonry 8 inches thick unless otherwise shown on the plan. All necessary openings and bulkheads for branch sewers shall be built in concrete sewers where shown on the plan or where directed.

20 Measurements.

129. The lengths of concrete sewers will be determined by horizontal measurements along their centre lines. No deductions will be made on account of openings at branches and manholes. The measurement of a branch concrete sewer will be made from the inner surface of the wall of the main sewer through which it enters. A reducer will be paid for at the contract price for the sewer at the larger end thereof.

30 Price to cover.

130. The contract prices for concrete sewers shall cover the cost of all necessary excavation (except rock); of furnishing, maintaining and removing all forms, centres, templets and temporary bulkheads; of all openings and bulkheads; of all back-filling; and of all labor and materials required to construct concrete sewers as shown by normal sections on the plan and as specified.

40

TYPE "B"

Cement Concrete Pipe With Reinforcement.

131. Reinforced cement concrete pipe used shall be circular in section with or without flat base and shall conform in dimensions as shown in table.

EXHIBIT C-131 (continued).

General dimensions of pipes and minimum test load

		per lin. ft. of pipe.				
	Size	Minimum Thickness.	Minimum Length in Feet.	Minimum Joint Length Inches.	Minimum Test Load per Lin. Foot of Pipe.	
10	24"	3"	4'	3"	3350 Lbs.	
	27"	3½"	4'	3"	3700 Lbs.	
	30"	3½"	4'	3"	4400 Lbs.	
	33"	4"	4'	3"	4600 Lbs.	
	36"	4"	4'	4"	4800 Lbs.	
	39"	4"	4'	4"	5200 Lbs.	
	42"	4½"	4'	5½"	5600 Lbs.	
	45"	4½"	4'	5½"	6100 Lbs.	
	48"	5"	4'	5½"	6600 Lbs.	
	20	51"	5"	4'	5½"	7050 Lbs.
		54"	5½"	4'	5½"	7500 Lbs.
		57"	5½"	4'	5½"	7750 Lbs.
		60"	6"	4'	5½"	8000 Lbs.
		63"	6"	4'	5½"	8400 Lbs.
66"		6½"	4'	5½"	8800 Lbs.	
72"		7"	4'	5½"	9400 Lbs.	
78"		8"	4'	5½"	10400 Lbs.	
84"		8"	4'	5½"	11200 Lbs.	
90"		8½"	4'	5½"	12000 Lbs.	
30	96"	8½"	4'	5½"	12800 Lbs.	
	102"	9"	4'	5½"	13600 Lbs.	
	108"	9"	4'	5½"	14400 Lbs.	

Testing pipe.

Reinforced concrete pipe shall not have less thickness of concrete, less length of pipe or joint than specified above, and two (2) pipes for each size of sewer (reinforced concrete) shall be selected at random for a load test. These pipes shall be tested at the age of twenty-one (21) days and the total load specified per lineal foot shall be applied on the upper half of the sewer. The lower half of the pipe shall be supported in a cradles covering an arc 180 degrees. The pipe shall sustain these loads per lineal foot without hair-cracks of any kind whatsoever. Failure to fulfill the above requirements in the manner set forth will be sufficient cause for the rejection of the pipe.

EXHIBIT C-131 (*continued*).

Testing of pipe shall be done by the contractor at his own expense and under the supervision and to the satisfaction of the Engineer.

Material of pipe, cement, sand, stone, or gravel.

- 10 132. Reinforced concrete pipe shall be constructed at the site of the work, in a shed if the weather requires, and the pipe shall be made by a manufacturer of established reputation, who shall have had previous experience in the manufacture of reinforced concrete pipe. The cement, sand, stone or gravel shall conform to the specifications of the Division of Sewers, Bureau of Engineering Construction. The forms shall be of steel and the reinforcement steel shall be held at all times against displacement in tamping. Concrete shall be an accurate 1—1—2 mix. Each pipe shall be stamped as made with date of manufacture.

20 Joints.

133. The pipe shall be of the bell and spigot type, the bell not to project beyond the body of the pipe, but to be flush with it. No pipe having a butt joint will be considered. No variation over one-half ($\frac{1}{2}$) per cent. from the hereinbefore mentioned dimensions will be permitted.

Jointing.

- 30 134. All joints to be made of 1 : 2 Portland cement mortar. The mortar shall be thoroughly trowelled in the recess in the interior of the pipe up to the spring line, making a continuous invert. After this has been done, steel forms especially designed for the purpose shall be placed over and around the entire joint, and the mortar for sealing the arch portions grouted or poured through an opening in the crown of the pipe. Joints must be watertight.

40 Laying pipe.

135. No pipe not marked with date of manufacture shall be laid or accepted. No pipe shall be laid in the trench which has not been seasoned for twenty-one (21) days, unless otherwise specially ordered by the Engineer-in-Charge of Engineering Construction.

EXHIBIT C-131 (continued).

Steel for reinforcement.

10 136. Reinforcement steel may be either expanded metal, deformed bars, or wire mesh, such as American Steel & Wire Company's, or Clinton Wire Cloth. For all sizes of reinforced concrete pipe, reinforcing shall be at distances not less than one (1) inch from the surface.

Spurs.

137. Reinforced concrete pipe shall have openings to receive spur and branch connection wherever required by the Plans. The openings shall be made in a manner satisfactory to the Engineer.

Disposal of water from trenches.

20 138. The provisions of paragraph No. 11 of the specifications shall be in full force and effect, even though reinforced concrete pipe shall be furnished on this contract.

Rejection of defective pipe.

139. Pipe damaged from handling or any cause whatsoever, whether in or out of the trenches, shall be replaced and removed from site of the work at the expense of the Contractors.

30 Depth of cover.

139a. Where depth of cover on precast pipe sewer is sixteen feet (16') or over extra reinforcing steel shall be used in the pipe to take care of the increased stresses. The cost of such extra steel shall be included in the price bid for precast pipe sewers.

Measurements.

40 139b. Precast concrete pipe, Type "B" will be paid for from the inside face of all chambers.

VITRIFIED PIPE SEWERS.

Vitrified pipe.

140. Vitrified pipe sewers shall be built of shale or clay hub and spigot pipes with deep and wide sockets. They shall be

EXHIBIT C-131 (*continued*).

10 thoroughly and perfectly burned, without warps, cracks or other imperfections, and shall be fully and smoothly salt-glazed over the entire inner and outer surfaces, except that the inside of the hub and the outside of the spigot may be glazed for two-thirds the depth of the hub. On all other portions of the pipe the glazing shall completely cover and form an integral part of the pipe body. If not left unglazed the inside of the hub and the outside of the spigot shall be scored in 3 parallel lines extending completely around the circumference. When it is broken, vitrified pipe shall show dense and solid material, without serious cracks or laminations; it shall be of such toughness that it can be worked with a chisel and hammer, and when struck with a hammer, it shall have a metallic ring.

Identification marks.

20 141. Each pipe shall have clearly impressed on its outer surface the name of the manufacturer and of the factory in which it was made.

Shape and dimensions.

30 142. The sizes of the pipes are designated by their interior diameters. Each pipe shall be a cylinder with a circular section and shall have a uniform thickness. The minimum lengths, thicknesses, depths of hubs and annular spaces for the respective sizes of pipe shall be as follows:

	Size. inches.	Length. feet	Thickness. inches.	Depth of socket. inches	Annular space. inches.
	6	2	$\frac{5}{8}$	$2\frac{1}{2}$	$\frac{5}{8}$
	8	3	$\frac{3}{4}$	$2\frac{3}{4}$	$\frac{5}{8}$
	10	3	$\frac{7}{8}$	$2\frac{3}{4}$	$\frac{5}{8}$
40	12	3	1	3	$\frac{5}{8}$
	15	3	$1\frac{1}{4}$	3	$\frac{5}{8}$
	18	3	$1\frac{1}{2}$	$3\frac{1}{4}$	$\frac{5}{8}$
	20	3	$1\frac{2}{3}$	$3\frac{1}{2}$	$\frac{5}{8}$
	22	4	$1\frac{5}{6}$	$3\frac{3}{4}$	$\frac{5}{8}$
	24	3	2	4	$\frac{5}{8}$

EXHIBIT C-131 (continued).

Curves, bends, etc.

10 143. Where curved pipes are required they shall be furnished in either one-eighth or one-quarter bends of their respective sizes. Curved pipe, bends, siphons, and special pipe of the sizes and forms shown on the plan shall be furnished and laid, and unless otherwise provided, they will be paid for at the contract prices for the corresponding sizes of vitrified pipe sewers.

Samples for testing.

144. Any or all of the following tests may be applied to samples selected from the pipe delivered on the work. For the purposes of making such tests as may be required, the Contractor shall furnish and deliver, when and where directed, one length of pipe for each 200 feet of pipe sewer to be laid.

20 Crushing tests.

145. When supported at the bottom upon a knife edge one inch in width in such manner that an even bearing is provided throughout the whole length, exclusive of the bell, and pressure is applied at the crown uniformly through a similar knife edge, the various sizes of pipe shall withstand the following pressures:

30

Diameter. inches	Pressure. lbs. per lin. ft.	Diameter. inches	Pressure. lbs. per lin. ft.
6	900	18	1400
8	900	20	1550
10	1000	22	1750
12	1050	24	1950
15	1250		

40 Drop weight test.

146. When supported on a dry sand bed two inches deep, all pipe shall withstand without cracking the impact from 2 blows of a cast iron ball weighing 8 pounds falling 18 inches. Spurs shall resist without fracture the impact from 2 blows of such a ball falling 6 inches and striking on the extreme end of the hub of the spur.

EXHIBIT C-131 (*continued*).

Hydrostatic test.

147. When subjected to an internal hydrostatic pressure of 8 pounds per square inch, vitrified pipe shall show no percolation.

10 Absorption test.

148. After having been thoroughly dried and then immersed in water for 24 hours, sample pieces of pipe with all broken edges shall not absorb more than 4 per cent. of their weight of water.

Factory rejection.

20 149. The entire product of any pipe factory may be rejected when, in the judgment of the Engineer, the methods of manufacture fail to guarantee uniform results, or where the materials used are such as produce inferior pipe, as indicated by repeated failure to comply with the tests herein specified.

Without cradle.

30 151. When the sewer is to be laid without a cradle the trench shall be excavated as specified in paragraph 17, and the earth forming the bed carefully freed of stones. The pipe shall then be evenly bedded therein, and the backfilling placed and firmly tamped in such a manner as to avoid disturbing the sewer.

How laid.

40 154. All pipes shall be laid with ends abutting and true to line and grade. The pipes shall be fitted together and matched so that when laid in the work they will form a sewer with a smooth and uniform invert. Unless otherwise permitted or directed, not less than twelve (12) feet of pipe sewer shall be laid in one operation.

Gasket and mortar joints.

155. Unless otherwise shown on the plan, the joints of vitrified pipe sewers shall be made as hereinafter specified in paragraph 156.

EXHIBIT C-131 (*continued*).

156. Gasket and mortar joints shall be made in the following manner: a closely twisted hemp or oakum gasket of suitable diameter, in no case less than $\frac{3}{4}$ -inch, and in one piece of sufficient length to pass around the pipe and lap at the top, shall be solidly rammed into the annular space between the pipes with a suitable calking tool. Before being placed, the gasket shall, if directed, be saturated with neat cement grout. The remainder of the space shall then be completely filled with plastic mortar mixed 1 to 1, and the joint wiped inside and finished to a smooth bevel outside.

Inspection of joints.

157. Unless otherwise permitted, at least 4 finished joints shall be left exposed for inspection throughout the working day, and the necessary staging for the protection of the exposed sewers and for the handling of excavated material shall be provided. A suitable ladder affording easy access for such inspection shall be furnished at every trench open for the proposed sewer.

Subgrade to be tested.

158. No pipe shall be laid or placed until the subgrade of the trench shall have been tested and found correct.

30 Sewer to be kept clean.

159. The interior of the sewer shall, as the work progresses, be cleared of all dirt, cement and superfluous materials of every description.

Backfilling.

40 160. Immediately after the sewer is laid the trench shall be backfilled as provided in paragraphs 29 to 37 inclusive and 157. No walking on or working upon the completed sewer (except as may be necessary in tamping the backfilling), will be permitted until the trench has been backfilled to a height of at least 2 feet over the top of the sewer.

EXHIBIT C-131 (*continued*).

Temporary covers.

161. The exposed ends of pipe sewers shall be provided with approved temporary covers fitted to the pipe so as to exclude earth and other materials.

10 Branch pipes.

162. Branch pipes and connection pipes shall be of the same quality and dimensions, and laid in the same manner as specified for vitrified pipe sewers. Dead ends of pipes shall be closed with bulkheads of brick masonry 8 inches in thickness.

Connection with existing work.

20 163. Wherever the proposed sewer is to connect with an existing manhole in which there is a branch pipe which is damaged or of unsuitable size or in improper position, such pipe shall be removed and be replaced with a pipe of suitable size or be reset in the proper position. The pipe so substituted or reset will be paid for at the contract price for the corresponding size of pipe sewer.

Pipes cut to fit masonry.

30 164. The ends of pipes which enter masonry shall be neatly cut to fit the face of the masonry. When directed, such cutting shall be done before the pipes are built in.

Measurements.

165. The length of pipe sewers to be paid for will be determined by horizontal measurements along their center lines, and no deductions will be made on account of openings at manholes, and the measurements will be made to the inside face of all chambers.

40 Prices to cover.

166. The contract prices for vitrified pipe sewers shall cover the costs of all necessary excavation (except rock) of all concrete cradles required of all necessary trimmings, fittings, and building into masonry; of all bulkheads; of all backfilling; of all samples furnished; and of all labor and materials required

EXHIBIT C-131 (*continued*).

to furnish and lay the sewers complete in place, as shown on the plan and as specified.

SPURS FOR HOUSE CONNECTIONS.

- 10 180. Spurs for house connections shall be of vitrified pipe 6 inches in diameter, equal in quality and dimensions to that specified for vitrified pipe sewers.

In concrete sewers.

- 20 181. In concrete sewers spurs shall be built in as shown on the plan or as directed. They shall be hub and spigot pipes with the spigot end molded or cut to fit flush with the inner surface of the sewer, and of sufficient length to reach the exterior of the sewer.

In pipe sewers.

182. Pipes having 6-inch spurs with hubs molded thereon shall be furnished and laid in pipe sewers where shown on the plan or directed. Such pipes will be paid for at the contract prices for vitrified pipe sewers, and the spurs will be paid for in addition at the contract price for spurs.

- 30 Covers.

183. The ends of all spurs not connected with drains shall be closed with approved covers. If required such covers shall be cemented in place, and when directed the covers shall be so cemented before the pipes are lowered into the trench.

Price to cover.

- 40 184. The contract price for spurs shall cover the cost of all labor and materials required to furnish and place the same as specified, and the cost of furnishing and cementing the covers for the same.

DRAINS FOR HOUSE CONNECTIONS.

185. Where shown on the plan or where directed, drains for house connections shall be built from the risers in such a

EXHIBIT C-131 (*continued*).

manner and for such distance as may be shown or directed.

Depth at curb.

10 186. House connection drains shall be laid with a minimum gradient of $\frac{1}{4}$ inch to a foot, and wherever possible the depth from established curb grade to the inner bottom of the drain at curb line shall be at least 7 feet.

Material.

187. Unless otherwise shown on the plan, drains for house connections shall be cast iron pipe of the quality and dimensions shown on plan. The ends of the drains shall be sealed with approved covers.

20 How laid.

188. All the requirements, as hereinbefore specified, relating to excavation, laying and backfilling of vitrified pipe sewers shall apply, as far as they are applicable, to drains for house connections.

Measurement.

30 189. The lengths of pipe drains for house connections to be paid for will be determined by measurement along their axes.

Price to cover.

40 190. The contract price for drains for house connections shall cover the cost of all necessary excavation (except rock); the cost of all backfilling; the cost of all covers, bends and specials required; and the cost of all labor and materials required to furnish and lay the drains for house connections complete in place, as specified.

RISERS.

191. Where shown on the plan or where directed risers for house connections shall be built in such a manner and to such height as detailed. They shall be supported and surrounded by concrete as shown on plan.

EXHIBIT C-131 (*continued*).

Measurement.

192. The lengths of risers to be paid for will be determined by measurements along their axes.

Price to cover.

10 193. The contract price for risers shall cover the cost of all necessary excavation (except rock); the cost of all concrete used in connection with the risers; the cost of all backfilling; the cost of all covers, bends and specials required; and the cost of all labor and materials required to construct the risers complete in place, as specified.

MANHOLES.

20

194. The masonry or concrete for manholes shall be built to within such distances of the existing surface of the ground as directed.

Brick manholes.

30 195. Brick manholes shall be formed by means of templets placed at the top and bottom with not less than 8 lines drawn between them, and they shall be smoothly and evenly plastered on the outside with a layer of mortar $\frac{1}{2}$ inch thick.

Concrete manholes.

196. Concrete manholes shall be built of the materials and to the sizes and dimensions shown on the plan.

Steps.

40 197. Galvanized wrought iron steps of the size and shape shown on the plan shall be firmly built into the manholes at vertical intervals, of about 16 inches.

Head and cover.

198. The manhole head and cover shall be of cast iron, and unless otherwise shown on the plan, each head, exclusive of

EXHIBIT C-131 (*continued*).

cover, shall weigh not less than 500 pounds and each cover shall weigh not less than 160 pounds. The weight of each head and cover shall be conspicuously painted thereon by the manufacturer with white oil paint. The head shall be set on the masonry or concrete in a full bed of stiff mortar.

10 Price to cover.

199. The contract price for manholes shall cover the cost of all necessary excavation (except rock); of all backfilling; of all plastering; of all concrete slabs; of all steps; and of all labor and materials required to construct the same complete, in place, as shown on the plan and specified.

EMBANKMENT.

20 Quality.

214. Where indicated on the plan, embankment shall be made of the form and dimensions shown. It shall consist of clean steam ashes or filling of the quality specified in paragraph 30, which shall contain no stone over 6 inches in its largest dimension. When the material forming the embankment contains stones, the latter shall be so distributed through the mass that all interstices are filled with fine material, and the material within 2 feet of the sewer shall be free of stones. When embankment is used as
30 foundation it shall consist entirely of filling of the quality specified in paragraph 29.

How made.

215. The embankment shall be deposited and spread in horizontal layers to such an extent and at such times as may be directed. If required, such portion of the embankment as may be deemed necessary shall be made prior to the construction of the
40 sewer or its foundation and any excavation that may be necessary for the building of the sewer and its foundation shall be made therein. When embankment is used as a foundation, the ground on which it is to be made shall be prepared by grubbing and clearing, and removing all improper material. Embankment used as foundation shall be deposited in uniform horizontal layers not exceeding 1 foot in depth, and each layer shall be thoroughly compacted by rolling or tamping or both; such em-

EXHIBIT C-131 (*continued*).

bankment shall not be built upon until the expiration of . . . days after its completion.

Approaches.

10 216. Where the embankment obstructs or interferes in any way with any public or private roadway, the Contractor shall furnish and place all material necessary to provide suitable approaches of such widths and to such extent as shown on the plan, or as directed.

217. All embankment and approaches shall be maintained at their full dimensions until the completion of this contract.

Cost covered.

20 218. The cost of all labor and materials required to prepare the ground, to make the embankment and approaches as specified, to make all necessary excavations and backfilling therein, and to maintain the embankments and approaches at their designated dimensions until the completion of this contract, shall be covered by the contract prices for cut and fill.

RESTORATION OF SURFACE AND CLEANING UP.

30 Restoration of unpaved roadways, sidewalks, etc.

219. At such time as may be directed, all unpaved roadways, gutters and sidewalks affected by the work done under this contract shall be restored by the Contractor to the same condition in which they were at the time of the opening of bids for this contract.

Pavements, etc., restored by Contractor.

40 220. If required by the plan, roadway and sidewalk pavements, crosswalks, curbs, etc., except those under guarantee for maintenance, shall be satisfactorily restored and adjusted by the Contractor at such times as may be directed. Sidewalk pavements shall be restored in whole flags, squares or sections which shall correspond in quality and appearance with the original or adjoining flags, squares or sections. All work and materials used in such restoration and adjustment shall conform

EXHIBIT C-131 (*continued*).

in all respects to the standard specifications now in use by the President for similar work and materials.

Pavements, etc., under guarantee.

10 221. All pavements, sidewalks, crosswalks, curbs, etc., existing at the time of the opening of the bids for this contract, and under guarantee for maintenance, shall be restored and adjusted by the parties responsible under such guarantee, and at the expense of the Contractor. If not so restored and adjusted during the progress of the work, the Contractor shall, when directed, pay to the President before the completion of the contract a sum of money sufficient to cover the cost of having the same restored and adjusted by the parties responsible under such guarantee, and at the charges for the restoration of the same, as set forth in their contracts relating thereto. Such sum shall be
20 accompanied by certificates from the parties responsible for the maintenance of the pavements, sidewalks, crosswalks, curbs, etc., to the effect that such sum will be accepted by them as full payment for such restoration and adjustment.

Temporary restoration.

30 222. At such times as may be directed roadway and sidewalk pavements, crosswalks, curbs, etc., which have been removed, whether under guarantee or not, shall be temporarily restored by the Contractor to the satisfaction of the Engineer.

When new pavement is laid.

40 223. If pavement, sidewalks, crosswalks, curbs, etc., are laid where non existed at the time the bids for this contract were opened, the Contractor shall excavate and remove such portions of the pavements, sidewalks, crosswalks, curbs, etc., and their foundations as may be necessary for the prosecution of the work, but he will not be required to make a permanent restoration of them.

Trenches flooded.

224. Before laying any pavements, sidewalks, crosswalks, curbs, etc., the trenches shall, if required, be flooded with water, as directed, and all resulting holes or depressions shall be filled and tamped solid.

EXHIBIT C-131 (*continued*).

Cleaning up.

225. At such times as may be directed, the Contractor shall remove from the streets all materials which were placed thereon by him as a consequence of performing this work, and which are not required by the contract to be left as part of the finished work. The entire work and portions of the streets affected thereby shall be left in a satisfactory condition. The sidewalks and crosswalks shall be swept clean of all material which may have come thereon by reason of the work under this contract, and if required, they shall be sprinkled with water during the sweeping.

Cost to be covered.

226. The cost of all labor required to be done and all the materials required to be furnished in the performance of all the work specified in paragraphs 219 to 225 inclusive, shall be covered by all the contract prices for all the items for which there are contract prices.

The macadam pavements in COLDEN STREET disturbed by this contract is to be relaid by the contractor in accordance with the specifications of the Bureau of Highways and to the satisfaction of the Engineer in charge of that Bureau. See note on plan.

30 The asphalt pavement at the intersection of KISSENA BLVD. & LABURNU MAVE. disturbed by this contract is to be relaid by the contractor in accordance with the specifications of the Bureau of Highway and to the satisfaction of the Engineer in charge of that Bureau. See note on plan.

EXHIBIT C-204.

EXHIBIT C-204

10 *(Contract between The City of New York and Angelo Paino, for the construction of a sewer and appurtenances in Broadway from St. James Place to Elmhurst Avenue; Elmhurst Avenue from Broadway to Roosevelt Avenue; Roosevelt Avenue from Elmhurst Avenue to 35th Street, Second Ward, Borough of Queens.)*

THE CITY OF NEW YORK—DEPARTMENT OF FINANCE

Office of Comptroller

20

CONTRACT SUMMARY

Contractor PAINO ANGELO No. 72459

Names of sureties The Fidelity & Casualty Co. of N. Y. \$50,000.
U. S. Fidelity and Guaranty Co. 50,000.
Amount of bond \$100,000.

30 Date of award No. 3/1924 Department President, Queens

Date of contract Nov. 15/1924 Borough Queens

Date paid in full 6/16/26

DESCRIPTION OF WORK.

40 For the construction of a sewer and appurtenances in BROADWAY from St. James Place to Elmhurst Avenue; ELMHURST Avenue from Broadway to Roosevelt Avenue; ROOSEVELT Avenue from Elmhurst Avenue to 35th Street, Second Ward, Borough of Queens.

Original Estimate	\$205,438.93
R. E.	1,182.35
	<hr/>
	204,256.58

EXHIBIT C-204 (continued).

ACCOUNTS TO BE CHARGED

CFM 25

10 The obligation on this surety bond ceases as anything occurring after February 13, 1926.

If the conditions of the contract have been complied with, the retained percentage (if any) is due on or after February 13, 1926.

GEORGE W. MORTAR,
Examiner.

20

PAYMENTS, AMOUNTS RETAINED AND EARNED

Date	.. % Payments	Amount paid to date	Amount retained to date	Amount earned to date
5- 4-25	59,542.50	59,542.50	10,507.50	70,050.00
6-18-25	53,218.50	112,761.00	19,899.00	132,660.00
30 7-24-25	40,341.00	153,102.00	27,018.00	180,120.00
9-10-25	15,810.00	168,912.00	29,808.00	198,720.00
11-24-25	31,191.30	200,103.30	4,153.28	204,256.58
5-26-26	4,153.28	204,256.58		
	<hr/>			
	204,256.58			

IN FULL

40

EXHIBIT C-204 (*continued*).

RESOLUTION

BOARD OF ESTIMATE AND APPORTIONMENT

10

CITY OF NEW YORK

(Cal. No. 538)

20 WHEREAS, The President of the Borough of Queens has transmitted to the Board of Estimate and Apportionment a copy of a resolution of the Local Board of the Newtown District, duly adopted by said Board on the 11th day of June, 1923, and approved by the Acting President of the Borough of Queens on the 19th day of June, 1923, as follows, to wit:

“RESOLVED, That this Board does hereby initiate proceedings for the local improvement to wit:

30 “For the construction of a sewer and appurtenances in Broadway from St. James place to Elmhurst avenue; Elmhurst avenue from Broadway to Roosevelt avenue; Roosevelt avenue from Elmhurst avenue to 35th street, Second Ward, Borough of Queens.”

—and which resolution is accompanied with an approximate estimate of the work and the assessed value of the property benefited.

40 RESOLVED, That the Board of Estimate and Apportionment hereby authorizes the President of the Borough of Queens to prepare plans, specifications and an estimate of cost based on actual survey, and also to secure a determination of the boundary of the district of assessment; the entire expense of the work done subsequent to the date of this authorization to be charged against the Street Improvement Fund and later included in the assessment.

RESOLVED, That the Board of Estimate and Apportionment will consider the authorization of the construction of the said proposed improvement after the President of the Borough

EXHIBIT C-204 (*continued*).

10 of Queens has submitted a statement showing that all of the above described work has been done, that he has secured the approval of the form of contract by the Corporation Counsel, that he is prepared to place the improvement under contract as soon as he receives the consent of the Board and that the assessment map will be completed on or before the date of payment on acceptance; this report being accompanied by a further statement showing the quantity of work to be performed under each item and the unit price thereof, the expense incurred for preliminary work, the allowance to be made for additional engineering and contingencies, the total probable cost, and the number of working days to be allowed the contractor for carrying out the work.

A true copy of a resolution adopted by the Board of Estimate and Apportionment, JUNE 27, 1924.

20

Secretary.

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EXHIBIT C-204 (*continued*).

BOARD OF ESTIMATE and APPORTIONMENT

CITY OF NEW YORK

(Cal. No. 81-A)

10

A copy of a resolution of the Local Board of the Newtown District, duly adopted by said Board on the 11th day of June, 1923, and approved by the Acting President of the Borough of Queens on the 19th day of June, 1923, having been transmitted to the Board of Estimate and Apportionment, as follows, to wit:

“RESOLVED, That this Board does hereby initiate proceedings for the said local improvement, to wit:

20

“For the construction of a sewer and appurtenances in Broadway from St. James place to Elmhurst avenue; Elmhurst avenue from Broadway to Roosevelt avenue; Roosevelt avenue from Elmhurst avenue to 35th street, Second Ward, Borough of Queens.”

30

—and thereupon, on the 27th day of June, 1924, resolutions having been adopted by the Board of Estimate and Apportionment authorizing the President of the Borough of Queens to prepare the necessary plans, specifications and an estimate of the cost of the proposed improvement based on actual survey and further resolving that the Board of Estimate and Apportionment will consider the authorization of the construction of the proposed improvement after the President of the Borough of Queens has submitted certain statements as provided in the said resolution, and the said resolution having been duly complied with by the President of the Borough of Queens, as appears by papers and documents on the files of the Board of Estimate and Apportionment, and there having been presented to the Board of Estimate and Apportionment an estimate in writing in such detail as the Board has directed, that the cost of the proposed work or improvement, together with the preliminary expenses will be the sum of \$224,300; and a statement of the assessed value according to the last preceding tax roll of the real estate included within the probable area of assessment, to wit, the sum of \$12,620,900. having also been presented, it is

40

EXHIBIT C-204 (*continued*).

RESOLVED, That the said resolution of the Local Board be and the same is hereby approved and the construction of the local improvement therein provided for is hereby authorized. This Board does hereby determine that no portion of the cost and expense thereof shall be borne and paid by The City of New York, but that the whole of such cost and expense, including the aforesaid preliminary expenses, shall be assessed upon the property deemed to be benefited by the said local improvement.

A true copy of a resolution adopted by the Board of Estimate and Apportionment, OCTOBER 17, 1924.

JAMES MATTHEWS,
Assistant Secretary.

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EXHIBIT C-204 (continued).

CONTRACT NO. 72459

THE CITY OF NEW YORK

ADVICE OF AWARD OF CONTRACT

10 (This copy to be retained by Bookkeeping Division
Department of Finance)

Dept. of President of the Borough of Queens

*Date Nov. 3, 1924.

Comptroller of The City of New York:

20 Please take notice that the following described contract
has this day* been awarded to

Contractor ANGELO PAINO

Address 32 Court Street, Brooklyn, N. Y.

Sureties The Fidelity and Casualty Co. of N. Y. 50,000.00
United States Fidelity and Guaranty Co. 50,000.00
30 AMT. OF BOND \$100,000.00

DETAILS OF PURPOSE OF CONTRACT

40 For the construction of a sewer and appurtenances in
BROADWAY from St. James Place to Elmhurst Avenue;
ELMHURST AVENUE from Broadway to Roosevelt Avenue;
ROOSEVELT AVENUE from Elmhurst Avenue to 35th Street,
Second Ward, Borough of Queens.

TYPE B

Contract Chargeable to Code No.	Estimated Amount	Contracts Previously Awarded (Including Adjustments)	Open Market Orders Issued To Date (Including Adjustments)	Mics. Vouchers, Payrolls, and Order Charges
C.F.M. 25	\$205,438.93	\$3,926,089.96	\$14,403.39	\$563,078.68

EXHIBIT C-204 (*continued*).

Enter full titles accounts below and refer to code numbers
by means of line numbers in margin.
Street Improvement Fund

Yours respectfully,

10

MAURICE E. CONNOLLY,
President, Borough of Queens, *Head of Dept.*

*This will be the date of the entry by which the fund is
charged with the estimated amount of the contract both in the
department making the award and by the Department of Finance.
There must therefore be not delay in forwarding this advice.

20

30

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EXHIBIT C-204 (continued).

CITY OF NEW YORK.

Office of

THE PRESIDENT OF THE BOROUGH OF QUEENS

10 Maurice E. Connolly,
President
Michael J. Shugrue,
Borough Secretary

Long Island City, December 3, 1924.

20 Charles L. Craig, Comptroller,
City of New York.

Sir:—

Referring to contract, No. 72459:—

30 “For the construction of a sewer and appurtenances in
BROADWAY from St. James Place to Elmhurst Avenue;
ELMHURST AVENUE from Broadway to Roosevelt Avenue;
ROOSEVELT AVENUE from Elmhurst Avenue to 35th Street,
Second Ward, Borough of Queens.”

I beg to inform you that the contractor, Angelo Paino,
32 Court Street, Brooklyn, N. Y., has been ordered to commence
the work embraced in said contract within seven days after the
service, by mail or otherwise, of the notice, irrespective of the
date of same.

40 Very truly yours,

MAURICE E. CONNOLLY,
President of the Borough of Queens.

JJR-PJH

The notice to contractor was mailed December 8, 1924.

EXHIBIT C-204 (*continued*).

GENERAL RELEASE

To all to whom these Presents shall come or may concern,

10 Greeting:

KNOW YE, That I, ANGELO PAINO,

32 Court St., Brooklyn, N. Y.

for and in consideration of the sum of Thirty one thousand, one
hundred, ninety one 30/100 Dollars, lawful money of the United
States of America, to me in hand paid by The City of New York,
have remise~~d~~, released and forever discharged, and by these
20 presents do, for myself, my heirs, executors, administrators and
assigns, remise, release and forever discharge the said City of
New York of and from all and all manner of action and actions,
cause and causes of action, suits, debts, dues, sums of money,
accounts, reckonings, bonds, bills, specialties, covenants con-
tracts, controversies, agreements, promises, variances, tres-
passes, damages, judgments, extents, executions, claims and
demands whatsoever in law or in equity, which against said City
of New York, I ever had, now have or which I, my heirs, execut-
ors, administrators or assigns hereafter can, shall or may have,
30 for, upon or by reason of a certain contract or agreement made
the 15th day of November, A. D. 1924 by and between Myself and
the said City of New York, for Contract No. 72459: Sewer &c.,
Broadway, &c., or by reason of any matter, cause or thing what-
soever resulting or arising therefrom, from the beginning of the
world to the day of the date of these presents. Excepting the
sum of \$4,153.28 retained as repairing security.

40 IN WITNESS WHEREOF, I have hereunto set my hand
and seal the 26th day of December in the year one thousand nine
hundred and twenty five.

ANGELO PAINO.

Sealed and delivered in the presence of

W. F. HEFFERNAN.

EXHIBIT C-204 (*continued*).

STATE OF NEW YORK,
COUNTY OF NEW YORK, ss.:
CITY OF NEW YORK,

10 On this 26th day of December, 1925, personally came and appeared before me ANGELO PAINO to me known and known to me to be the person described therein, and who executed the foregoing instrument and acknowledged that he executed the same for uses and purposes therein mentioned.

W. F. HEFFERNAN.

20 Notary Public, Commissioner of Deeds.

30

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EXHIBIT C-204 (*continued*).

THE CITY OF NEW YORK

Department of Finance

Bureau of Audit — Division of Administration

Municipal Building, Room 631

10

\$4,153.28

New York, JUN 16, 1926

RECEIVED from CHARLES W. BERRY, Comptroller,
Warrant No. 96878 for the sum of Four thousand, one hundred,
fifty three 28/100 Dollars, on account of the within Contract
numbered 72459 for and in Full of repairing security.

20

ANGELO PAINO.

30

40

EXHIBIT C-204 (*continued*).

Adopted by the Board of Estimate and Apportionment
on October 17, 1924, by unanimous consent.

No. 1

NOTICE

10

Bidders are particularly requested to carefully examine the Proposal for Bids, Form of Agreement, Specifications, Plan and the location of the work and the surroundings thereof before bidding.

20

THE CITY OF NEW YORK
OFFICE OF THE PRESIDENT OF THE BOROUGH
OF QUEENS.

30

BUREAU OF SEWERS.

1924

ASSESSMENT WORK

Proposals for Bids, Bid, Bond, Agreement and Specifications
For the construction of a sewer and appurtenances in BROAD-
40 WAY from St. James Pl. to Elmhurst Ave.; ELMHURST AVE.
from Broadway to Roosevelt Ave.; ROOSEVELT AVE. from
Elmhurst Ave. to 35th St., Second Ward, Borough of Queens,
together with all the work incidental thereto.

EXHIBIT C-204 (*continued*).

the price in writing will be considered as the bid. The writing must be in ink.

10 BID OR ESTIMATE for constructing a sewer and appurtenances in: BROADWAY from St. James Place to Elmhurst Avenue; ELMHURST AVENUE from Broadway to Roosevelt Avenue; ROOSEVELT AVENUE from Elmhurst Avenue to 35th Street, Second Ward, Borough of Queens.

Made by the firm, or corporation of ANGELO PAINO

Address 32 Court St., Brooklyn, N. Y.

20 NAME AND ADDRESS OF EACH AND EVERY MEMBER OF THE FIRM OR PRINCIPAL OFFICERS OF THE CORPORATION

NOTE.— The *bidder's name and residence or address* must be inserted herebelow, and in case of a firm, *the name and address of each and every member of the firm must be inserted.*

30 In case a bid shall be submitted by or in behalf of any corporation, the complete legal name and address of such *corporation* must be written herebelow, together with the name, address and title of the principal officers of the corporation.

Name ANGELO PAINO

Address 32 Court St. Brooklyn, N. Y.

40 The party named above (of lawful age), as *Bidder*, declares: *That* the only person or persons interested in this bid or proposal as principal or principals is or are named above, and that no other person than herein above named has any interest in this bid or in the contract proposed to be taken; *that* this bid is made without any connection with any other person or persons making a bid for the same work or purpose; *that* the bid is in all respects fair and without collusion or fraud, and *that* no member of the Board of Aldermen, no head of a department, no chief of a bureau, deputy thereof, or clerk therein, nor any other

EXHIBIT C-204 (continued).

10 officer or employee of The City of New York, is, shall be or become, directly or indirectly, interested as contracting party, partner, stockholder, surety or otherwise in the performance of the contract, or in the supplies, work or business to which it relates, or in any portion of the profits thereof, *that* he has examined the form of contract and specifications approved by the Corporation Counsel and any plans therein referred to, and
20 that he has visited the site of the proposed work and has made himself familiar with all the existing conditions; and he proposes and agrees, if this bid be accepted, that he will contract in the form so approved, to provide, furnish and deliver all necessary work, labor, services, materials or supplies, machinery, tools, plant, and appliances, and to perform and complete all the work mentioned in said approved form of contract and specifications, and in strict accordance with the terms and conditions thereof, and that he will accept in full payment therefore the following named sums or prices:

30 The Engineer's estimate of the quantities as advertised and the nature and extent of the work and materials or supplies required, through stated with as much accuracy as is practicable in advance, are APPROXIMATE only and are given to form a basis of comparison for testing bids and are not guaranteed to be accurate and are not considered as a binding feature of the contract. *Before bidding, Contractors must satisfy themselves by personal examination of the Plans, Specifications, Contract, and location of the proposed work,* and by such other means as they may prefer, as to the accuracy of the foregoing statement, and they must determine for themselves, and allow for all difficulties which may be encountered in the prosecution of the work.

T Y P E "B"

- 40
1. 650 Linear Feet 8'-0" x 8'-0" Reinforced Concrete Sewer, Per Linear Foot, One hundred Dollars (\$100.00).
 2. 273 Linear Feet 5'-6" Reinforced Concrete Pipe Sewer (Precast Type "B"), Per Linear Foot, Forty-five Dollars (\$45.00).
 3. 2,745 Linear Feet 4'-6" Reinforced Concrete Pipe Sewer (Precast Type "B"), Per Linear Foot, Thirty Dollars (\$30.00).

EXHIBIT C-204 (continued).

4. 20 Linear Feet 3'-9" Reinforced Concrete Pipe Sewer (Precast Type "B"), Per Linear Foot, Thirty Dollars (\$30.00).
5. 184 Linear Feet 3'-0" Reinforced Concrete Pipe Sewer (Precast Type "B"), Per Linear Foot, Thirty Dollars (\$30.00).
- 10 6. 260 Linear Feet 2'-9" Reinforced Concrete Pipe Sewer (Precast Type "B"), Twenty Dollars (\$20.00).
7. 1 Chamber in Broadway at Kingsland Avenue, Complete, Two thousand Dollars (\$2,000.00).
8. 1 Chamber "A" in Broadway at Elmhurst Avenue, Complete, Two thousand Dollars (\$2,000.00).
- 20 9. 1 Chamber "B" in Broadway at Elmhurst Avenue, Complete, Two thousand Dollars (\$2,000.00).
10. 1 Chamber "C" in Broadway at Elmhurst Avenue, Complete, Two thousand (\$2,000.00).
11. 1 Chamber in Elmhurst Avenue at Forley Street, Complete, Two thousand Dollars (\$2,000.00).
- 30 12. 1 Chamber in Elmhurst Avenue at Roosevelt Avenue, Complete, Two thousand Dollars (\$2,000.00).
13. For altering the invert of existing Chamber in Broadway at St. James Avenue, as shown on plan, Complete, Sum of, One thousand Dollars (\$1,000.00).
14. 27 Manholes and Drop Manholes, Complete, Each, Two hundred Dollars (\$200.00).
- 40 15. 33 Basin Manholes (Regular), Complete, Each, Two hundred Dollars (\$200.00).
16. 2 Basin Manholes (Type #2), Complete, Each, Two hundred Dollars (\$200.00).
17. 46 Inlets, Complete, Each, One hundred Dollars (\$100.00).

EXHIBIT C-204 (*continued*).

18. 1,030 Linear Feet 12" Vitrified Pipe, Basin Connections, Per Linear Foot, One cent (\$0.01).
19. 690 Linear Feet 10" Vitrified Pipe, Basin Connections, Per Linear Foot, One cent (\$0.01).
- 10 20. 273 Six-inch Spurs, 24-inches long on Reinforced Concrete Sewers, Each, One cent (\$0.01).
21. 558 Linear Feet 6" Vitrified Pipe, House Connection Drains, Per Linear Foot, Eight Dollars (\$8.00).

20 No bid will be allowed to be withdrawn, for any reason whatever, after it has been received and deposited with the President. The President expressly reserves the right to reject all bids if he shall deem it for the public interest so to do. No bid will be accepted from, nor contract awarded to, any person who is in arrears to The City of New York upon debt or contract, or who is a defaulter, as surety or otherwise, upon any obligation to The City of New York.

30 No bid or proposal will be received, considered and deposited unless, as a condition precedent to the reception or consideration of any proposal it be accompanied by either a certified check upon one of the State or National Banks of The City of New York, drawn and made payable to the order of the Comptroller of The City of New York, or money to the amount of *five per centum* (5%) of the amount of the security or surety bond required for the faithful performance of the contract. Such check or money must not be inclosed in the sealed envelope containing the proposal, but must be either inclosed in a separate envelope addressed to the Borough President, or submitted personally upon the presentation of the bid or proposal and handed to the officer or clerk of the Department who has charge of the proposal box, and who will give a proper voucher for the deposit, and no bid can be
40 deposited in said box until such check or money has been examined by said officer or clerk and found to be correct. All such deposits, except that made by the bidder to whom the contract shall be awarded, will be returned to the person or persons making the same within three (3) days after the decision as to who shall receive the contract. If the bidder to whom the contract has been awarded shall refuse or neglect to execute the same within five days after due notice that the contract has been awarded to him,

EXHIBIT C-204 (continued).

and that the adequacy and sufficiency of the surety offered has been approved by the Comptroller, the amount of the deposit made by him shall be forfeited to and retained by The City of New York as liquidated damages for such neglect or refusal; but if he shall execute the contract and furnish the said surety within the time aforesaid, the amount of the deposit shall be returned to him.

10

Each and every person bidding must sign here.

NOTE. — *Each and every person bidding* and named above must *sign here*. In the case of a firm, give the name of each and every partner in full.

ANGELO PAINO [L. S.]

20

In case a bid shall be submitted by or in behalf of a corporation, it must be signed in the full legal name of such corporation by some authorized officer or agent thereof, who shall subscribe his name and office. If practicable, the seal of the corporation must be affixed.

..... [L. S.]

..... [L. S.]

..... [L. S.]

30

The following affidavit must be similarly signed and sworn to:

THE CITY AND STATE OF NEW YORK, COUNTY OF N. Y., ss.:

The above-named bidder (s), being severally duly sworn, say, each for himself, that the several matters stated in the above bid are in all respects true.

40

Signature of Bidder

ANGELO PAINO

EXHIBIT C-204 (continued).

Subscribed and sworn to before me, this 31 day of October, 1924.

JOSEPH F. FAGAN,

Commissioner of Deeds, City of New York,

10 New York County Clerk's Office No. 258 ... No. 24024,

Kings County Clerk's No. 155 Reg, No. 4066,

Queens County Clerk's No. 5099 My Commission Expires Dec. 4, 1924..

NOTICE TO BIDDERS

20 Bidders are invited to tender bids on monolithic concrete sewers 27-inches and upward, these being the standards of the Sewer Department, and hereafter designated as Type "A", or on reinforced concrete pipe sewer 24-inches and upward (pre-cast) which will be designated as Type "B", or on both types, if they so desire, but it is to be distinctly understood that no bids will be accepted on combinations of Types "A" and "B".

NOTICE TO BIDDERS

30

Prices to be paid by the City of New York for indeterminate quantities, such as

	CLASS "A" CONCRETE	\$ 20.00	Per Cu. Yd.
	REINFORCING STEEL .....	.06	Per Lb.
	STRUCTURAL STEEL .....	.08	" "
	FOUNDATION TIMBER	70.00	Per 1000 Ft. B. M.
	SHEETING & BRACING	20.00	" " " "
40	PILING (TIMBER)	1.25	Per Ft. driven and cut off
	STEAM CINDERS (delivered & placed)	1.75	Per Cu. Yd.

Indeterminate quantities shall be those whose amount and necessity will be determined by the conditions encountered during the work of construction.

EXHIBIT C-204 (continued).

Time for preenting bids.

1. *Scaled bids* for the above entitled work will be received at the office of the President of the Borough of Queens, Queens Subway Building, Long Island City, in the City of New York, until 11 o'clock a. m. on FRIDAY October 31, 1924.

10 Time allowed for completion.

2. The time allowed for the full completion of the work herein described will be One hundred and sevety-five (175) CONSECUTIVE WORKING DAYS.

Security required.

20 3. The amount of security required will be One hundred thousand 00-100 Dollars (\$100,000.).

Bidders referred to form of agreement, etc.
Engineer's estimate.

30 4. Bidders are referred to the form of agreement, to the specifications and to the plan and drawings of Standard Details on file at the office of the President, and to the following Engineer's estimate of the quantity and kind of work required the items whereof in all cases include all materials and labor necessary to fully complete said work. Prices for each item shall be named upon the sum total of which the comparison and tests of bids will be made.

TYPE "A" OR SEWER DEPT. STANDARD.

40 650 Linear Feet 8'-0" x 8'-0" Reinforced Concrete Sewer
273 Linear Feet 5'-6" Reinforced Concrete Sewer
2,745 Linear Feet 4'-6" Reinforced Concrete Sewer
20 Linear Feet 3'-9" Plain Concrete Sewer
184 Linear Feet 3'-0" Plain Concrete Sewer
260 Linear Feet 2'-9" Plain Concrete Sewer

EXHIBIT C-204 (continued).

- 1 Chamber in Broadway at Kingsland Ave.
- 1 Chamber "A" in Broadway at Elmhurst Ave.
- 1 Chamber "B" in Broadway at Elmhurst Ave.
- 10 1 Chamber "C" in Broadway at Elmhurst Ave.
- 1 Chamber in Elmhurst Ave. at Forley St.
- 1 Chamber in Elmhurst Ave. at Roosevelt Ave.
For altering the invert of existing chamber in Broadway
at St. James Ave. as shown on plan
- 27 Manholes and Drop Manholes
- 20 33 Basin Manholes (Reg)
- 2 Basin Manholes (Type #2)
- 46 Inlets
- 1,030 Linear Feet 12 in. Vitrified Pipe Basin Connections
- 690 Linear Feet 10 in. Vitrified Pipe Basin Connections
- 273 6in Spurs, 20 inches long on Concrete Sewers
- 30 558 Linear Feet 6 inch Vitrified Pipe House Connection Drains

T Y P E "B"

- 650 Linear Feet 8'-0" x 8'-0" Reinforced Concrete Sewer
- 40 273 Linear Feet 6'-6" Reinforced Concrete Pipe Sewer (Precast
Type "B")
- 2,745 Linear Feet 4'-6" Reinforced Concrete Pipe Sewer (Precast
Type "B")
- 20 Linear Feet 3'-9" Reinforced Concrete Pipe Sewer (Precast
Type "B")

EXHIBIT C-204 (*continued*).

- 184 Linear Feet 3'-0" Reinforced Concrete Pipe Sewer (Precast Type "B")
- 260 Linear Feet 2'-9" Reinforced Concrete Pipe Sewer (Precast Type "B")
- 10 1 Chamber in Broadway at Kingsland Ave.
- 1 Chamber "A" in Broadway at Elmhurst Ave.
- 1 Chamber "B" in Broadway at Elmhurst Ave.
- 1 Chamber "C" in Broadway at Elmhurst Ave.
- 1 Chamber in Elmhurst Ave. at Forley St.
- 20 1 Chamber in Elmhurst Ave. at Roosevelt Ave.
For altering the invert of existing chamber in Broadway at St. James Ave. as shown on plan
- 27 Manholes and Drop Manholes
- 33 Basin Manholes (Reg)
- 2 Basin Manholes (Type 2)
- 30 46 Inlets
- 1,030 Linear Feet 12 inch Vitrified Pipe Basin Connections
- 690 Linear Feet 10 inch Vitrified Pipe Basin Connections
- 273 6 inch Spurs 24 inches long on Reinforced Concrete Sewers
- 558 Linear Feet 6 inch Vitrified Pipe House Connection Drains
- 40 Personal examination of work.

5. The foregoing Engineer's Estimate is *approximate only* and is not to be considered as a binding feature of the contract. Bidders are required to submit their bids upon the follow-

EXHIBIT C-204 (*continued*).

ing express conditions which apply to and become a part of every bid received. Bidders must satisfy themselves by personal examination of the location of the proposed work and surroundings thereof, and by such other means as they may prefer as to the accuracy of the foregoing estimate, and shall not at any time after submission of their bids, dispute or complain of such estimate of the Engineer, nor assert that there was any misunderstanding in regard to the quantity or kind of material to be furnished or work to be done.

Prices to be stated in writing in words, and in figures.

6. Any bid which fails to name a price, written both in words and in figures, per unit of measurement for each of the items for which quantities are given, will be held to be informal and will be rejected. In case of any discrepancy between the price in words and that in figures, the price in words will be considered as the bid.

Prices bid to cover.

7. The prices bid must cover the cost of furnishing *all necessary materials and labor for and the complete performance of all the work* set forth in this proposal, described in the form of agreement and specification annexed hereto, and indicated by the plan of the work on file in the office of the President, to all of which information the bidders are referred.

Rock excavation.

8. The attention of the bidders is particularly directed to the specifications relating to rock excavation.

Bids may be rejected.

9. Permission will not be given for the withdrawal of any bid within forty-five (45) days after receipt of bids and the right is expressly reserved by the President to reject all bids if he shall deem it to be in the public interest so to do. No bid will be accepted from, or contract awarded to, any person who is in arrears to The City of New York upon debt or contract or who is a defaulter, as surety or otherwise upon any obligation to The City of New York.

EXHIBIT C-204 (*continued*).

Times and places for commencing and prosecuting work to be determined by the President.

10 10. Bidders are especially notified that the President reserves the right to determine the times and places for commencing and prosecuting the work, and that postponement or delay on the whole, or any part thereof, occasioned by the precedence of other contracts, which may be either let or executed before the opening of the bids for this work, can constitute no claim for damages nor for a reduction of the damages fixed for delay in completing the work beyond the time allowed.

No extra compensation.

20 11. The Contractor will be required to complete the entire work to the satisfaction of the President and in accordance with the agreement, the specifications and the plan of the work. No extra compensation beyond the amount payable for the several classes of work herein before enumerated, which shall be actually furnished and performed at the prices bid therefor by the bidder to whom the contract is awarded, shall be due or payable for the entire materials and work.

Deposit to accompany bid.

30 12. No bid will be received or considered unless accompanied by either a certified check upon one of the National or State Banks or Trust Companies of The City of New York, or a check of such bank or trust company signed by a duly authorized officer thereof, drawn to the order of the Comptroller, or money or corporate stock or certificate of indebtedness of any nature issued by The City of New York, which the Comptroller shall approve as of equal value with the security required, to an amount of five per centum of the amount of the bond required for the faithful performance of the contract (as provided by Section 420 of The Greater New York Charter, as amended).
40 Such check or money or other form of security must not be inclosed in the sealed envelope containing the bid, but must be handed to the officer or clerk who has charge of the bidding, and no bid shall be deposited in the box provided for that purpose until such check or money or other forms of security has been examined by said officer or clerk and found to be correct. All such deposits, except those of the lowest three bidders, will be returned to the

EXHIBIT C-204 (*continued*).

persons making the same within ten days after the opening of the bids; within three days after the awarding of the contract, the remaining deposits, except that made by the bidder whose bid has been accepted, will be returned to the persons making the same. If the successful bidder shall refuse or neglect to execute the contract within five days after notice that it has been awarded to him, and that the adequacy and sufficiency of the security offered has been approved by the Comptroller, the amount of the deposit made by him shall be forfeited to and retained by The City of New York, but if he shall execute the contract and furnish the required security within the time aforesaid, the amount of his deposit will be returned to him.

Names of persons interested.

13. Bidders are required to state in their bids, under oath, their names and places of residence or business, the names of all persons interested with them therein, and if no other person be so interested, they shall distinctly state that fact; also, that it is made without any connection with any other person making any bid for the same purpose, and that it is in all respects fair and without collusion or fraud; and that no member of the Board of Aldermen, head of a department, chief of a bureau, deputy thereof or clerk therein or officer or employee of The City of New York is, shall be or become interested, directly or indirectly, as contracting party, partner, stockholder, surety or otherwise, in or in the performance of the contract or in the materials, work or business to which it relates, or in any portion of the profits thereof. Bidders must verify by oath, in writing, the several matters stated in their bids.

Sealed bids to be submitted.

14. Each bid must be delivered in a sealed envelope, endorsed with the *title* of the work for which the bid is made, with the name of the bidder, and the date of presentation to the President at his office, on or before the date and hour hereinbefore named, at which time and place the bids received will be publicly opened by the President and read and the award of the contract made according to law as soon thereafter as practicable. The person or persons to whom the contract may be awarded will be required to attend at said office with the sureties offered by him or them and execute the contract within five days from the date of the service of a notice to the effect that the contract

EXHIBIT C-204 (*continued*).

has been so awarded and the surety accepted; and in case of failure or neglect so to do he or they will be considered as having abandoned the contract and as being in default to The City.

Bidders shall use blank forms to be furnished by the President.

10 15. Bidders shall made their bids upon the forms prepared by the President, a copy of which with the proper envelope in which to enclose the same can be obtained upon application therefor at the office of the President, Queens Subway Building, Long Island City, where the plans can be seen, as also the form of contract, including the specifications in the form approved by the Corporation Counsel.

MAURICE E. CONNOLLY,

20

President of the Borough of Queens.

The City of New York,....., 192...

30

40

EXHIBIT C-204 (continued).

THE CITY OF NEW YORK

Office of

THE PRESIDENT OF THE BOROUGH OF QUEENS

10

BUREAU OF SEWERS.

20 CONTRACT FOR the construction of a sewer and appurtenances in BROADWAY from St. James Pl. to Elmhurst Avenue; ELMHURST AVENUE from Broadway to Roosevelt Avenue; ROOSEVELT AVENUE from Elmhurst Avenue to 35th St., Second Ward, Borough of Queens; together with all the work incidental thereto.

Parties.

30 THIS AGREEMENT, made and entered into this 15th day of Nov., in the year one thousand nine hundred and twenty four, by and between The City of New York, party of the first part, by the President of the Borough of Queens, and Angelo Paino of 32 Court Street, Brooklyn, N. Y., Contractor, party of the second part, pursuant to the provisions of The Greater New York Charter, and the resolution of the Board of Estimate and Apportionment adopted on the 27th day of June, 1924, of which resolution the following is a copy:

RESOLUTION

BOARD OF ESTIMATE AND APPORTIONMENT

40

CITY OF NEW YORK

(Cal. No. 128)

A copy of a resolution of the Local Board of the Newtown District, duly adopted by said Board on the 11th day of June, 1923, and approved by the Acting President of the Borough of

EXHIBIT C-204 (continued).

Queens on the 19th day of June, 1923, having been transmitted to the Board of Estimate and Apportionment, as follows, to wit:

“Resolved, That this Board does hereby initiate proceedings for the said local improvement, to wit:

10 “For the construction of a sewer and appurtenances in Broadway from St. James place to Elmhurst avenue; Elmhurst avenue from Broadway to Roosevelt avenue; Roosevelt avenue from Elmhurst avenue to 35th street, Second Ward, Borough of Queens.”

—and thereupon, on the 27th day of June, 1924, resolution having been adopted by the Board of Estimate and Apportionment authorizing the President of the Borough of Queens to prepare the necessary plans, specifications and an estimate of the cost of the proposed improvement based on actual survey and further
20 resolving that the Board of Estimate and Apportionment would consider the authorization of the construction of the proposed improvement after the President of the Borough of Queens had submitted certain statements as provided in the said resolutions, and the said resolutions having been duly complied with by the President of the Borough of Queens, as appears by papers and documents on the files of the Board of Estimate and Apportionment, and there having been presented to the Board of Estimate and Apportionment an estimate in writing in such detail as the
30 Board has directed that the cost of the proposed work or improvement, together with the preliminary expenses, will be the sum of \$224,300; and a statement of the assessed value according to the preceding tax roll of the real estate included within the probable area of assessment, to wit, the sum of \$12,620,900, having also been presented; it is

Resolved, That the said resolution of the Local Board be and the same is hereby approved and the construction of the local improvement therein provided for is hereby authorized.
40 This Board does hereby determine that no portion of the cost and expense thereof shall be borne and paid by The City of New York, but that the whole of such cost and expense, including the aforesaid preliminary expenses, shall be assessed upon the property deemed to be benefited by the said improvement.

A true copy of resolution adopted by the Board of Estimate and Apportionment, OCTOBER 17, 1924.

EXHIBIT C-204 (*continued*).

Covenant.

10 WITNESSETH, That the parties to these presents, each in consideration of the agreements on the part of the other herein contained, have mutually agreed, and hereby mutually agree, the party of the first part for itself and its successors, and the party of the second part for itself, himself or themselves, and its, his or their executors, administrators, successors and assigns, as follows:

Contract.

20 I. The contract for the hereinbefore entitled work shall include the following, which are hereby agreed upon as forming part and parcel thereof: the Proposal for Bids, the Bid, the Bond, this Agreement and the Specifications hereto annexed; also the Plan of the Work dated September 4th, 1924, filed in the office of the President of the Borough, entitled: Plans, Profiles, & Details for the construction of a sewer and appurtenances in BROADWAY from St. James Place to Elmhurst Avenue; ELMHURST AVENUE from Broadway to Roosevelt Avenue; ROOSEVELT AVENUE from Elmhurst Avenue to 35th Street, Second Ward, Borough of Queens and also Drawings of Standard Details pertinent thereto on file in the office of the Engineer.

Party of the first part.

30 II. Whenever the term "The City" or a word "President", or a pronoun in place of either, is used, it refers to and means The City of New York, the party of the first part hereto, or the President of the Borough of Queens, or his authorized representative.

Party of the second part.

40 Whenever the word "Contractor," or a pronoun in place thereof, is used, it refers to and means the party of the second part hereto.

Engineer described.

III. Whenever the word "Engineer." or a pronoun in place thereof, is used, it refers to and means the Engineer designated by the President, Borough of Queens, acting either directly or through assistants designated by him to act in the

EXHIBIT C-204 (*continued*).

premises, limited to the particular duties entrusted to them. In case said Engineer may not be able to act, then such Engineer as may be designated by the President shall act in his place.

Terms defined.

10 IV. Whenever the word "plan" is used, it refers to and means the plan of this work and the standard drawings pertinent thereto. Whenever it is provided that anything is "to be" or "to be done," "if," or "as," or "when," or "where approved," "required," "directed," "permitted," "ordered," "designated," or "deemed necessary," it shall be taken to mean approved, required, permitted, ordered, designated, or deemed necessary as the case may be by the Engineer. Whenever the words "desirable," "suitable," "sufficient," "satisfactory," or others of a similar purport are used, it is hereby agreed that the desirability, suitability, sufficiency, satisfactoriness or other denominated condition shall be as determined by the Engineer.

20

Contractor to furnish tools, proper appliances, etc.

V. The Contractor hereby agrees to furnish and provide all materials, labor and appliances necessary and proper for the purpose, to excavate for, build, complete and connect in a good substantial manner, to the satisfaction of the President, and in conformity with the contract, the hereinbefore entitled work and all the work incidental thereto, and the Contractor hereby agrees to receive and accept as and for his full compensation the following prices, which are the amounts or rates at which this contract was awarded to the Contractor at the public letting thereof:

30

Prices.

T Y P E "B"

40

8'-0" x 8'-0" Reinforced Concrete Sewer, per linear foot One hundred Dollars (\$100.00).

5'-6" Reinforced Concrete Pipe Sewer (Precast Type "B") per linear foot Forty five Dollars (\$45.00).

EXHIBIT C-204 (*continued*).

- 4'-6" Reinforced Concrete Pipe Sewer (Precast Type "B") per linear foot Thirty Dollars (\$30.00).
- 3'-9" Reinforced Concrete Pipe Sewer (Precast Type "B") per linear foot Thirty Dollars (\$30.00).
- 10 3'-0" Reinforced Concrete Pipe Sewer (Precast Type "B") per linear foot Thirty Dollars (\$30.00).
- 2'-9" Reinforced Concrete Pipe Sewer (Precast Type "B") per linear foot Twenty Dollars (\$20.00).
- Chamber in Broadway at Kingsland Ave, complete, Two thousand Dollars (\$200.00).
- Chamber "A" in Broadway at Elmhurst Ave. complete Two thousand Dollars (\$200.00).
- 20 Chamber "B" in Broadway at Elmhurst Ave. complete Two thousand Dollars (\$200.00).
- Chamber "C" in Broadway at Elmhurst Ave. complete Two thousand Dollars (\$200.00).
- Chamber in Elmhurst Ave. at Forley St. complete Two thousand Dollars (\$200.00).
- 30 Chamber in Elmhurst Ave. at Roosevelt Ave. complete Two thousand Dollars (\$200.00).
- For altering the invert of existing chamber in Broadway at St. James Ave. as shown on plan; the sum of One thousand Dollars (\$1,000.00).
- Manholes & Drop Manholes, complete, each Two hundred Dollars (\$200.00).
- 40 Basin Manholes (Reg) complete, each, Two hundred Dollars (\$200.00).
- Basin Manholes (Type 2) complete, each, Two hundred Dollars (\$200.00).
- Inlets, complete, each, One hundred Dollars (\$100.00).

EXHIBIT C-204 (continued).

- 12 inch Vitrified Pipe Basin Connection, per linear foot, One Cent (\$0.01).
- 10 inch Vitrified Pipe Basin Connection, per linear foot, One Cent (\$0.01).
- 10 Six-inch Spurs, 24 inches long on Reinforced Concrete Sewer, each, One Cent (\$0.01).
- 6-inch Vitrified Pipe House Connection Drains, per linear foot, Eight Dollars (\$8.00).

Quantities are approximate only.

No extra compensation.

- 20 VI. The Contractor admits that the quantities of materials to be furnished and the amount of work to be done, as stated in the proposal for bids for the work, are approximate only. The Contractor agrees that The City is not to be held responsible that any of said quantities and amounts shall obtain in the construction of the work, as he has judged for himself as to such quantities and amounts and each of them, and as to the other circumstances affecting the cost of the performance of this contract; and that he will not at any time dispute or complain of such statement nor assert that there was any misunderstanding
- 30 in regard to the character, size or depth of the excavations to be made or the kind or amount of the materials to be furnished or work to be done. The Contractor hereby agrees that he will not ask, demand, sue for, nor seek to recover for the entire work any extra compensation beyond the amount payable for the several classes of work and kinds of materials in this contract enumerated, which shall be actually performed and furnished, at the prices therefor herein agreed upon and fixed.

- 40 Sewers, etc., to be built as shown on the plan.

VII. The sewer and appurtenances will be built on the lines, at the depths and at the grades and in the manner shown on the plan of the work as the same will be designated on the ground by the Engineer.

EXHIBIT C-204 (*continued*).

Line may be changed.

10 The President may change the line of the sewer or the location of the manholes or other sewer appurtenances provided such changes do not materially affect either the character or the amount of the work to be done, or the conditions under which it is to be performed, and the Contractor hereby agrees to make no claim for damages or extra compensation on account thereof.

Preservation of points, stakes, etc.

20 The Contractor will safeguard all points, stakes, grade marks, monuments and bench marks made or established on or near the line of work, and he agrees to accept responsibility for and to remedy at his cost any mistakes that may be caused by the unauthorized disturbance or removal of such points, stakes, grade marks, monuments and bench marks.

Written order for extra work.

30 VIII. No claim for additional work or materials shall be made by or allowed to the Contractor, unless before the performance of such additional work the President shall have first authorized the same, in writing, and the same shall have been done or furnished under a written order from the President, given before the performance of such additional work or the furnishing of such additional materials. The aggregate price to be paid for additional work or materials so authorized or ordered shall not exceed five (5) per cent. of the contract price or the total cost of the work and materials.

Contract may be modified.

40 This contract may be modified and changed from time to time as may previously be agreed to, in writing, between the parties hereto, in a manner not materially affecting the substances thereof or increasing the contract price thereunder, in order to carry out and complete more fully and perfectly the work herein agreed to be done and performed.

Limit to extras.

All claims for additional work or materials in any month shall be made to the Engineer, in writing, before the 15th day

EXHIBIT C-204 (continued).

of the following month, and failing to make such claim within the time required, the rights of the Contractor to additional pay for such additional work or materials shall be deemed to have been waived and forfeited.

Inspection.

- 10 Work or materials may be condemned at any time.

IX. The Engineer shall inspect the materials furnished and the work done and see that the same correspond with the specifications. The Engineer is hereby authorized and empowered to reject and refuse all labor and material or method of application, or any part thereof, offered under or in fulfillment of this contract, that do not comply in kind, quality or quantity with the terms thereof. Any material delivered or offered to be
20 delivered under this contract, which shall be rejected by the Engineer as not conforming to the terms thereof, will be forthwith removed by the Contractor, and material which does so conform will be forthwith furnished and delivered to him in place thereof. The Contractor hereby agrees not to use any material which has not been inspected and accepted, nor to perform any work except under inspection, to which end he further agrees to notify the Engineer when lines, grades or inspection are required to that the Engineer may have time to provide for the same. No inspection, approval or acceptance of any part of
30 the work herein contracted for or of the materials used therein, or any payment on account thereof, shall prevent the President from refusing to accept the work or materials at any time thereafter.

Engineer to be final arbiter.

X. To prevent all disputes and litigation, it is hereby agreed that the Engineer shall, in all cases, determine the amount and the quality of the several kinds of work and materials which
40 are to be paid for under this contract, and he shall determine all questions in relation to the work and materials and the construction thereof, and he shall in all cases decide every question which may arise relative to the execution of this contract on the part of the Contractor, and his decision will be final and conclusive upon the Contractor; and such decision, in case any question shall arise, shall be a condition precedent to the right of the Contractor to receive any money under this contract.

EXHIBIT C-204 (*continued*).

Any doubt as to the meaning of this contract and the specifications thereof, or any obscurity as to the wording of them, or any discrepancy between them and the plan will be explained by the Engineer, and his explanation will be accepted by the Contractor, who hereby agrees to execute the work in accordance with such explanation, and to make no change or claim for any extra work or damage on account thereof.

10

Work and materials must agree with specifications.

XI. The work will be performed in the best manner, and all materials of which the work is composed will be of the best kind, and a sufficient number of persons will be at all times employed to execute the work with due dispatch, the whole to be done to the satisfaction of the Engineer, and any materials furnished or work done not satisfactory to the Engineer will be immediately removed and satisfactorily replaced by the Contractor at his own expense; or if he shall neglect or refuse to remove and replace the same when notified so to do by a written notice to be served upon him, then the President may remove, or cause the same to be removed and satisfactorily replaced, by contract or otherwise, as he may deem expedient, and charge the expense thereof to the Contractor; and the expense so charged shall be deducted and paid by The City out of such moneys as are or may become due under this contract.

20

30 Examinations.

During the progress or after the completion of the work, should the Engineer require it, for the purpose of examining the same, the Contractor will make such openings, and to such extent through such part or parts of the work as the Engineer may direct, and the Contractor will satisfactorily restore the work so disturbed. Should the openings disclose defects in the work, such defects shall be remedied in accordance with the provisions of the first paragraph of this section.

40

Use of patented articles.

XII. Wherever an article or any kind of material is specified by a trade name or by the name of a patentee, manufacturer or dealer, or by reference to the catalogue of a manufacturer or dealer, it shall be taken as intending to mean and specify the article or kind of material designated, or any other

EXHIBIT C-204 (continued).

10 equal thereto in quality, finish and durability, and equally serviceable for the purposes for which it is or they are intended. Nothing on the plan or in the specifications shall be interpreted or taken to violate the provisions of Section 1554 of The Greater New York Charter, which provides that "except for repairs, no patented pavement shall be laid, and no patented article shall be advertised for, contracted for or purchased, except under such circumstances that there can be a fair and reasonable opportunity for competition, the conditions to secure which shall be prescribed by the Board of Estimate and Apportionment."

Claims for infringement.

20 The Contractor will be responsible for any claims made against The City for any infringement of patents, by the use of patented articles or processes in the construction and completion of the work, and he will save harmless and indemnify The City against all costs, expenses and damages caused by reason of any infringement of patents used in the construction and completion of the work.

Commencement and completion.

30 XIII. The Contractor will begin the work herein agreed to be performed on such date as the President shall notify him to begin, on and from which date the time hereinafter fixed for the completion of the work shall begin to run. The place where the work is to be begun will be either stated in said notice or designated on the ground by the Engineer. The commencement of work by the Contractor without notice shall be deemed and taken to be a waiver on his part of notice to begin work, in which case the time for the completion of the work will begin to run on and from the date the work was commenced.

Time of performance.

40 XIV. The Contractor will carry on the work with such force and in such manner and order and at such places, times and seasons, including freezing weather, as may be directed by the Engineer, and will execute all the work in every respect in a thorough and workmanlike manner; and he will fully and entirely perform this contract on his part before the expiration of One hundred, seventy-five (175) CONSECUTIVE WORKING DAYS.

EXHIBIT C-204 (*continued*).

Time important.

10 It is hereby agreed that the time designated for the performance of all the work under this contract is of the essence of this agreement, in view whereof it is hereby further agreed that a rate of progress will be maintained so that the work performed up to any time will be at least the same percentage of the total work to be performed under this contract as the net elapsed time at such time is of the total time allowed for the performance of all the work under this contract.

20 In this computation of the number of consecutive working days, the time during which the completion of the work has been delayed in consequence of the condition of the weather, or tides, or by any act or omission of the party of the first part, or during such period as the work has been suspended by written order of the President, or delays for which the Contractor is not responsible (all of which will be determined by the President, who shall certify to the same in writing, and whose determination and certificate thereof shall be binding and conclusive upon the Contractor), will be allowed to the Contractor and will be deducted in computation. Sundays, and also holidays on which no work is done, will also be excluded from said computation. In case a larger amount of rock excavation than is set forth in the Engineer's Estimate shall be necessary, an allowance of one day will be made for each 25 cubic yards of such excess of rock excavated and removed in accordance with the measurement of rock
30 allowed by the specifications. If the completion of the work to be done under this contract shall require work or materials or both in greater amounts than those set forth in the Engineer's Estimate of Quantities, or if unforeseen obstacles are encountered in the prosecution of said work, then the time which the Contractor is delayed on account thereof will be determined and allowed by the President at the completion of the work, upon the receipt by him of a written application from the Contractor for such determination and allowance. No demand by the Contractor
40 that the President determine and certify the matters aforesaid shall be of any effect whatsoever unless the same be made in writing and duly served upon the President prior to the filing in the office of the Comptroller of The City of the final certificate of the completion and acceptance of the work.

EXHIBIT C-204 (continued).

End of time period.

The time shall run against this contract until all work called for in this contract is completed to the satisfaction of the Engineer.

10 Liquidated damages.

XV. In case the Contractor shall fail to complete the work hereunder in accordance with the contract within the time aforesaid, he agrees to pay to The City the sum of Ten Dollars (\$10.00) for each and every day the time consumed in said performance and completion exceeds the time hereinbefore allowed for that purpose; which said sum, in view of the difficulty of ascertaining the loss which The City will suffer by reason or delay in the performance of the work hereunder, is hereby agreed upon, fixed and determined by the parties hereto as the 20 liquidated damages that The City will suffer by reason of said delay and default, and not as a penalty; and The City shall and may deduct and retain the amount of such liquidated damages out of the moneys which may be due or become due under this contract.

Work not provided for in contract.

XVI. If, before the commencement or completion of the 30 work contemplated herein, it shall become necessary to do any other or further work on or near the line thereof than is provided for in this contract, the Contractor will not in any way interfere with or molest such person or persons as the President may employ to do such work, and will carry on the work under this contract in such manner as may be ordered so as to afford all reasonable facilities for doing such other or further work; and no damage or claim by the Contractor shall be allowed therefor, except such allowance of time for delay as the President may deem reasonable.

40 President's right to suspend work.

XVII. The President is hereby authorized to suspend the whole or any part of the work herein contracted to be done, if he shall deem it for the interest of The City so to do. During such suspension the trenches shall be backfilled, if required, and the roadways and pavements over the same satisfactorily restor-

EXHIBIT C-204 (*continued*).

ed, and all materials upon the work shall be neatly piled so as not to obstruct public travel, or shall be removed from the line of work, if directed.

No damages to be claimed for delay due to other contracts.

10 XVIII. Should postponement or delay be occasioned by the precedence of paving or other contracts, which may have been either let or executed before the opening of the bids for this contract, the Contractor will make no claim for damages therefor nor for any damages in consequence of the street or the adjoining sewers not being in the condition contemplated by the parties at the time of making the contract; if, however, the Contractor shall be delayed in performance of his work by reason of the street or the adjoining sewers not being in such condition, or by reason of the work or any part thereof being suspended as hereinbefore provided, such allowance of time on account thereof as the President shall deem reasonable will be made.

20

If the work be suspended or delayed by any act or omission of The City, or for the reason that The City does not own or has not obtained possession of, or the right to enter upon the land upon which the work is to be performed, or because of any act or omission of any employee or agent of The City or any other Contractor performing work for The City, the President or whoever is directed by this contract, to make the certificate in reference to time, shall make such allowance of time for the completion of the work as the Engineer shall certify that the work has been delayed. No allowance whatever as damages will be made to the Contractor because of any such suspension or delays, and no claims shall be made by the Contractor on account thereof.

30

Allowance of time for delays.

XIX. No allowances of time for delays under the provisions of this contract nor the delivery and acceptance of any articles or materials called for by this contract, shall be deemed to be a waiver by the President of the right to abrogate this contract for abandonment or delay in the manner hereinafter provided.

40

Right to construct sewers, etc.
Permits for connections.

XX. Prior to the commencement of and during the progress of the work under this contract the President shall have

EXHIBIT C-204 (*continued*).

10. the right to undertake, and to grant permits for any construction, reconstruction, and repairing of any pipes, sewers, basins, subway ducts and railway tracks, and any appurtenances thereof located on and adjoining the line of the work, and for any connections with and additions to such pipes, etc., and for such purposes, the President is hereby authorized to suspend work on any part of this contract, in accordance with Section XVII, and the Contractor will not interfere with nor place any obstructions in the way of any person or persons who may be engaged upon such work. The President is hereby authorized to connect, by contract or otherwise, any sewers and drains with the work built under this contract and to grant permits to any person or persons to make connections therewith at any time before it is completed; and the Contractor will not interfere with nor place obstructions in the way of such persons as may be employed in building such sewers and drains, or in making such connections, and the flow from such sewers, drains and connections will be permitted by the Contractor to discharge into the work built under this contract and the Contractor agrees to make no claim for compensation, damages or delay on account thereof. The issuance of such permits shall not be considered as an acceptance by The City of that part of the sewer into which such connections empty or flow, nor shall the Contractor on account thereof be relieved from the cleaning of the sewer prior to the final examination of the work. No new connections or drains will be allowed to be made or joined to the work built under this contract unless a permit therefor has been duly issued by the President, which permit shall be shown in all cases to the Inspector of the Work.

Flow of sewers and drains, etc.

Drains, etc., interrupted.

Sewers, etc., to be kept clean.

40 XXI. The Contractor will provide at his own cost for the flow of the sewers, drains and water courses interrupted during the progress of the work, and will immediately cart away and remove all offensive matter. The flow throughout the entire length of such sewers and appurtenances as are to be replaced by the work to be done under this contract will be maintained by the Contractor. The Contractor will remove at his own cost and expense all such bulkheads as may be directed from the

EXHIBIT C-204 (*continued*).

sewers with which the work under this contract will be connected. When the permanent removal of any existing pipe sewers and appurtenances and pipe drains is necessitated by the work to be done under this contract, such of the materials of such structures as may directed shall be carefully taken up, piled and left at the disposal of The City, and shall not be used in the work, and the remainder shall be removed from the work and disposed of by the Contractor. Wherever the work to be built under this contract, or the trenches in which it is to be constructed, follow the line, and occupy the place of or intercept the Fire Alarm Telegraph System of The City, or any existing sewers, drains, culverts, basin connections or house connections for which permits may have been granted prior to the opening of the bids for this contract, the Contractor will make the same good, and will rebuild the Fire Alarm Telegraph System of The City and also sewers, drains, culverts, and connections, or connect the same with the sewer built under this contract, whichever he may be directed to do, at his own cost and expense. All sewers, drains, culverts, basins and basin connections rendered unnecessary by the construction of the work herein contemplated, shall be thoroughly broken up, except as otherwise hereinbefore provided, and satisfactorily filled in by the Contractor at his own cost and expense, as shall also all portions of water courses in, through or across any street that may be rendered unnecessary by the construction of this work. During the progress of the work, and until the completion and acceptance thereof, the sewers, drains, basins, culverts and connections built under this contract shall be kept thoroughly cleaned throughout, and shall be left clean.

Sale of sand or earth.

XXII. The Contractor will not sell, nor permit to be removed from the line of the work, before the trench shall have been backfilled, any building sand or earth thrown up, except upon written permission, and then only so much as shall remain after reserving a sufficient quantity to backfill the trench and complete the paving; and the Contractor will, in all cases, backfill the trench with the same material thrown out, provided it be suitable under the provisions of the Specifications hereof; but if it be unsuitable, then, the same shall be removed from the line of work, and suitable material procured, and used for backfilling the trench, and when required, sand of proper quality and depth shall be spread on the surface to receive the pavement.

EXHIBIT C-204 (*continued*).

10 The Contractor hereby agrees that all excavated material and materials of construction placed by him or for him upon private property, unless by written permission of the owners or lessees thereof, will be removed by him and all damage to said property remedied by him at his own cost and expense. Unless such materials are removed and such damage remedied by the Contractor within 48 hours after the receipt by him of a written notice so to do, he agrees that the President shall be and is hereby authorized to dispose of such materials, and to remedy such damage and to deduct the expense thereof from the moneys due or to become due under this contract.

Contractor to give personal attention to work.

Not to assign or sublet.

20 XXIII. The Contractor will give his personal attention constantly to the faithful prosecution of the work; he will not assign, transfer, convey, sublet or otherwise dispose of this contract, or his right, title or interest in or to the same, or any part thereof, without the previous consent, in writing, of the President, indorsed hereon or hereto attached; and he will not assign, by power of attorney or otherwise, any of the moneys to become due and payable under this contract, unless by and with the like consent, signified in like manner. If the Contractor shall, without such previous written consent, assign, transfer, convey, sublet or otherwise dispose of this contract, or of his right, title or interest therein, or any of the moneys due or to become due under this contract, to any other person, company or other corporation, 30 this contract may, at the option of the President, be revoked and annulled, and The City shall thereupon be relieved and discharged from any and all liability and obligations growing out of the same to the Contractor, and to his assignee or transferee; provided that nothing herein contained shall be construed to hinder, prevent or affect an assignment by the Contractor for the benefit of his creditors, made pursuant to the statutes of the State of New York: and no right under this contract, or to any 40 money to become due hereunder, shall be asserted against The City, in law or in equity, by reason of any so-called assignment of this contract, or any part thereof, or of any moneys due or to become due hereunder, unless authorized as aforesaid by the written consent of the President.

EXHIBIT C-204 (*continued*).

When Contractor is absent.

Disorderly workmen.

Contractor to provide assistance.

10 XXIV. Whenever the Contractor is not present on any
part of the work, where it may be necessary to give directions,
orders will be given by the Engineer to and shall be received and
obeyed by the superintendent and foremen who may have im-
mediate charge of the men employed on the particular work in
relation to which the order may be given; and at any time, if a
foreman or workman employed by the Contractor shall be de-
clared by the Engineer to be disobedient, incompetent or dis-
respectful, the Contractor, on receiving written notice to that
effect, will forthwith dismiss such person, and will not again
employ him on any part of the work. The Contractor will provide
20 all necessary assistance for the Engineer when required, without
charge or expense to The City or Engineer.

Contractor to plank and bridge for traffic.

30 XXV. The Contractor will observe the law and all
ordinance of The City in relation to obstructing the streets,
keeping open passageways and protecting the same where they
are exposed and would be dangerous to the public travel, and
such passageways shall, as may be required, be planked or
bridged by the Contractor, at his own expense.

Guards and lights.

Indemnification of City.

40 XXVI. During the performance of the work herein set
forth the Contractor will place proper guards upon and around
the same for the prevention of accidents, and at night will put
up and keep suitable and sufficient lights, and he will indemnify
and save harmless The City against and from all claims, suits
and actions, of every name and description, brought against it,
and all costs and damages to which it may be put on account or
by reason of any injury or alleged injury to the person or prop-
erty of another, resulting from the prosecution of the work, or
from negligence or carelessness in the performance of the work,
or in guarding the same, or from any improper materials used
in its prosecution, or by or on account of any act or omission

EXHIBIT C-204 (*continued*).

of the Contractor, or his agents; and the Contractor agrees that the whole or so much of the moneys due to the Contractor under and by virtue of this contract, as shall or may be considered necessary by the Comptroller of The City, may at its option, be retained by The City until all such suits and claims for damages as aforesaid shall have been settled, and evidence to that effect furnished to the satisfaction of the Comptroller.

10

Contractor to make repairs.

XXVII. In case any injury is done to property along the line of the work, or to any sidewalk, in consequence of any act or omission on the part of the Contractor or his employees or agents in carrying out any of the provisions or requirements of this contract, the Contractor will make such repairs as are necessary in consequence thereof, at his own expense and to the satisfaction of the President, and in case of failure on the part of the Contractor to promptly make such repairs, they may be made by the President, and the expense thereof will be deducted out of the moneys due or to become due under this contract.

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Loss or damage to be assumed by Contractor.

XXVIII. The Contractor agrees to assume, and to make no claim on account of, any and all loss or damages arising out of the nature of the work to be done under this contract, or from any unforeseen obstructions or difficulties which may be encountered in the prosecution of the same, or from the action of the elements, or from incumbrances on or near the line of the work, or from the breaking of water mains, sewers and gas mains, on or near the line of the work.

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Claims for labor, etc.

XXIX. The Contractor will pay promptly, and in cash, for all labor employed upon and all materials furnished and used in the work, and if at any time before or within thirty days after the whole work herein agreed to be performed has been completed and accepted by The City, any person or persons claiming to have performed any labor or furnished any materials toward the performance and completion of the contract, shall file with the President and with the Comptroller of The City any such notice as is described in the Lien Law or any act of the Legislature of the State of New York, then, and in every

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EXHIBIT C-204 (*continued*).

10 such case, The City shall retain — anything herein contained to the contrary thereof notwithstanding — from the moneys under its control, and due or to become due under this contract, so much of the moneys as shall be sufficient to pay off, satisfy and discharge the amount in such notice alleged or claimed to be due to the person or persons filing such notice, together with the reasonable cost of any action or actions brought to enforce such claim or the lien created by the filing of such notice. The money so retained shall be retained by The City until the lien thereon created by the said act and the filing of said notice shall be discharged, pursuant to the provisions of the said act.

Contractor will prevent filing of liens, etc.

20 XXX. The Contractor will not, at any time, suffer or permit any lien, attachment, or other incumbrances, under the law of this State or otherwise, by any person or persons whomsoever, to remain on file in the Finance Department or at the office of the City Department having supervision of the work against any money due or to become due for any work done or materials furnished under this contract, or by reason of any other claim or demand against the Contractor; and any such lien, attachment, or other incumbrance, until it is removed, shall preclude any and all claim or demand for any payment whatsoever under or by virtue of this contract.

30 Evidences of satisfaction of liens, etc.

40 The Contractor further agrees that he will present to the party of the first part satisfactory evidence that all just liens, claims and demands of his employees, or of parties from whom materials used in the construction of the work may have been purchased or procured are fully satisfied and that the materials furnished and work done under this contract are fully released from all such liens, claims and demands before said party of the second part will demand or shall receive the sums due on final payment under this contract.

Notice to gas companies, etc.

Not to hinder other companies.

XXXI. At least twenty-four hours before breaking ground for the work under this contract the Contractor will give notice in writing to all gas, railroad and other companies owning or

EXHIBIT C-204 (continued).

controlling any pipe, tracks or other structures which during the progress of the work may be affected by the prosecution of the same so that said companies may protect or remove their structures and he will not cause any hindrance to, or interference with, any such gas company or other company or companies in protecting their said pipes, tracks or other structures, nor in removing or otherwise protecting and replacing the main and service pipes, lamp-posts, lamps, tracks or other structures where necessary, but the Contractor will suffer the said company or companies to take all such measures as are requisite for the purpose aforesaid. But if said gas, railroad, or other companies, within five days after receipt of such notice, fail to support, remove or otherwise protect their structures the Contractor will, upon the approval of the President, protect or remove the same, it being expressly understood that the cost thereof shall not be a charge against The City, but shall be a matter for adjustment between the Contractor and the company or companies concerned.

Pipes, conduits, etc., of private companies.

XXXII. It is hereby agreed that The City is not responsible or liable for the support, protection or reconstruction of such gas pipes, conduits, water pipes, tracks or structures owned by private companies enjoying special franchises or occupying any portion of the street or way on or below the surface in its streets or ways, as the Contractor admits that he has carefully examined the location of work, has made special inquiry at the offices of the companies owning, controlling or operating said pipes, conduits, tracks and structures, and he has determined to his satisfaction the character, size, location and length of such pipes, conduits, tracks and structures; that he has inspected the public records of the various City Departments having cognizance and control of pipes, conduits and other sub-surface structures, and of The City's water pipes, conduits, and sewers, and he has made such further personal inspection and investigation as he deemed proper to determine the correctness of the information so obtained; and he clearly understands that The City does not insure the accuracy of such reports or information, and agrees that he will not make any claim against The City for damages or extra work caused or occasioned by his relying upon such records, reports or information furnished by any City Department or any companies, either as a whole or in part.

EXHIBIT C-204 (*continued*).

Protection and restoration of pipes, etc.,
of private companies.

10 XXXIII. The Contractor agrees to confer with and to make to or entertain an offer from such private companies as own the said pipes, conduits, tracks or structures, and the Contractor further agrees to enter into an agreement with said companies by what terms and at what prices the support, protection, removal and reconstruction of the pipes, conduits, tracks and structures will be undertaken and accomplished, and in the event of the failure to make such an agreement with said companies, he will not complain nor make any demand on The City for additional compensation or pay for supporting, protecting, removing or restoring the said pipes, conduits, tracks or other structures.

20 XXXIII-A. If the paving between and for a distance of two (2) feet in width outside the tracks of any Street Railroad Company is disturbed by the work of this contract, the Contractor shall restore at his expense, the said pavement, and replace same in good condition to the satisfaction of the Engineer, notwithstanding anything hereinbefore, or hereinafter mentioned in these specifications.

Contractor to notify Department of Water Supply,

30 Gas and Electricity.

XXXIV. At least twenty-four hours before breaking ground, for the purpose of constructing the work of this contract, the Contractor agrees to give notice thereof in writing to the Department of Water Supply, Gas and Electricity.

City's water pipes, etc.

40 XXXV. If, upon excavating, it shall be found that any existing water pipes or appurtenances owned or controlled or operated by the City follow the lines, or occupy the place, of the sewer, or sewers and appurtenances, to be laid or built, as shown on the plan, such existing water pipes and appurtenances will be removed and relaid, or rebuilt, by and at the cost of the Department of Water Supply, Gas and Electricity of The City of New York; if, however, in order to facilitate the work to be done under this contract, it be found desirable to temporarily

EXHIBIT C-204 (continued).

remove any water pipes or appurtenances owned or controlled or operated by The City, the removal and replacing in their original positions of such water pipes and appurtenances will be done by the Department of Water Supply, Gas and Electricity for the Contractor at his cost and expense.

10 Protection of City's water pipes, etc.

XXXVI. The Contractor agrees to protect all water mains and service water pipes owned, controlled or operated by The City which may be affected in any manner by the work done under this contract, except as hereinbefore provided, and to protect all such water and service pipes from freezing, and if he fails to do so, the Commissioner of Water Supply, Gas and Electricity is hereby authorized to protect such main and service pipes, or in the event of their having suffered injury to replace such pipes, and recalk and repair the same immediately, as the work progresses, and the cost thereof shall be charged to the Contractor; the cost so charged shall be deducted from any sum or sums due or to become due to the Contractor under this contract, and in case such sum or sums shall be insufficient to cover such cost, the Contractor will be liable for the balance.

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Protection of gas and water mains and pipes, etc.

XXXVII. The Contractor agrees to sustain in their places and protect all water or gas mains, conduits, subways or service pipes, steam pipes and pneumatic pipes that may be adjacent to his work, but entirely outside of the lines of the excavations as required by the specifications, and all sidewalks, curbs, stoops, areas, and all other property in the vicinity of his work, from direct or indirect injury by caving or otherwise, and he hereby assumes all expenses for direct or indirect damage which may be occasioned by injury to any of them, and he agrees said pipes, conduits, subways, lamp-posts and lamps and other necessary materials and appliances on the ground, and will use the same, as required, for bracing and sheeting the sides and ends of excavations, and for sustaining and supporting any and all pipes, conduits, subways, lamp-posts and lamps or other structures that are undermined, weakened, endangered or threatened; and in case any damage or injury shall or may result to said pipes, conduits, subways, lamp-posts and lamps and other works or structures of any gas, electric, railroad or other com-

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EXHIBIT C-204 (*continued*).

pany whatsoever, or to any private property, through or by reason of any negligence, wilfulness, carelessness or want of skill on the part of the Contractor, his agents or servants, the Contractor hereby agrees to pay such amount as may be sufficient to cover the expense and damages occasioned by such negligence, wilfulness, carelessness or unskillfulness, and that such amount shall be charged against him; and the President is hereby authorized to deduct and retain from any moneys which may be due, or which shall become due, under this contract, a sum sufficient, in his judgment, to cover the cost of making good any such damages, expense or loss, and to apply said sum so deducted and retained to the requisite repairs or renewals, or to reimburse the parties damaged or injured.

Old water and gas pipes.

XXXVIII. All iron, water and gas pipes which it becomes necessary to remove shall be considered the property of The City and will be piled by the Contractor in such part or parts of the streets as may be directed, unless notice to the contrary is given him in writing, in which case he will remove the same at his own expense.

Change of grade.

XXXIX. In case the grade of the street shall be changed during the progress of the work, the Contractor will conform to the altered grade at the contract prices, as far as they are applicable; and for any work, for which there is no contract price, the provisions in relation to work not provided for in this contract shall apply.

Measurement of work and material.

XL. All quantities of work and materials to be paid for will be measured and determined, according to the plan and the working lines that may be given, and the specifications, when the work conforms thereto. No allowance will be made on any part of the work for any excess above the quantities required by such plan, lines and specifications. Should the dimensions of any part of the work, or of the materials, be less than those required by the plan, the actual quantities only will be allowed in measurement.

EXHIBIT C-204 (continued).

Payment on acceptance of work.

10 XLI. The Contractor will not be entitled to demand or receive payment for any portion of the work or materials unless the same has been fully completed in the manner set forth in this contract, and such completion duly certified by the Engineer, and until each and every one of the stipulations hereinbefore
20 mentioned is complied with, and the work completed to the satisfaction of the President and accepted by him, and the final certificate of completion and acceptance thereof, signed by the President and said Engineer, filed with the Comptroller. The City will pay to the Contractor on or before the expiration of thirty days from the filing of said final certificate of completion and acceptance in the office of the Comptroller, the whole of the moneys accruing to the Contractor, under this contract, except such sum or sums of money as shall be retained under any of the provisions herein contained for that purpose, or in any law of the State, or under any ordinance of The City passed prior to the date of this contract and now in force.

Moneys to be retained, for repairs to unpaved streets.

30 It is hereby further agreed that The City shall be and is hereby authorized to retain out of the moneys payable to the Contractor, during a period of six months from the date of the final completion and the acceptance by the President of the work done under this contract, the sum of \$0.06 for each linear foot of sewer, basin connection, and house connection constructed under this contract within unpaved streets, and the sum of \$0.75 for each linear foot constructed within streets repaired by the Contractor. And should the Contractor fail to make such repairs to the street surface as may become necessary by reason of the work done under this contract within two days of the date of service of notice upon him so to do, then the President may expend such sum or any part thereof in making such repairs.

40 Payment of retained moneys to be made after six months.

It is hereby further agreed that The City upon the expiration of the said period of six months, will pay to the said party of the second part the whole or such part of the moneys retained as may remain after the expenses of making such repairs, in the manner aforesaid, shall have been paid therefrom.

EXHIBIT C-204 (*continued*).

Termination of six month's period.

10 It is hereby further agreed that if the termination of the said period of six months after the completion and acceptance of the work done under this contract shall fall within the months of December, January, February or March, then and in that case the said months of December, January, February and March, or such part thereof as the President may determine, will not be included in the computation of said period of six months.

Final certificate to control.

20 XLII. The action of the Engineer, by which the Contractor is to be bound and concluded according to the terms of this contract, shall be that evidenced by said Engineer's final certificate, all prior certificates upon which eighty-five per centum (85%) payments may have been made being merely estimates, and subject to the corrections of such final certificate, which may be made without notice to the Contractor thereof, or of the measurements upon which the same is based.

85 per cent. payments.

30 XLIII. In case the amount of this contract, based on the Engineer's estimate and the contract prices, shall be five thousand dollars (\$5,000.00) or over the Engineer shall from time to time, as the work progresses, but not oftener than once a month, make in writing an estimate, such as in his opinion shall be just and fair, of the amount of the work done and material installed by the Contractor in the performance of this contract on his part, and of the value thereof under and according to the terms of this contract. No allowance will be made in these estimates for materials furnished and delivered until such materials shall have been permanently incorporated in the work, except as hereinafter stated. The first such estimate will be of the amount of work done and materials furnished and installed since the
40 Contractor commenced the performance of this contract on his part, and every subsequent estimate, except the final one, will be of the amount of work done and materials furnished and installed since the last preceding estimate was made. In the estimates allowances will be made for Reinforcing Steel, Structural Steel, Pumps & Electric Motors, Valves, Cast Iron Pipe, Salt Glazed Tile Pipe 12 inches in diameter and larger sizes, Precast Concrete Pipe 24 inches in diameter and larger sizes,

EXHIBIT C-204 (*continued*).

Stationary Screens, Mechanically Driven Screens, Cast Iron Tunnel Lining and Precast Concrete Blocks for Tunnel Lining, prior to their installation, which are owned by the Contractor and free from all liens or claims, and which have been delivered at locations where work is to be performed under this contract. Such allowances will be calculated at Eight (80) per cent. of the cost price for said materials. But no allowances will be made for those materials delivered which are in excess of the quantities permitted under the specifications to be distributed along the lines of the work. The Contractor will be required to furnish, prior to the certification for payment, written evidence satisfactory to the Borough President that the Contractor is the owner of the materials upon which payment is to be certified, and that such materials are free from liens or claims. Before certifying for payment for materials aforesaid, the Contractor shall execute or have executed and delivered to The City any and all instruments required to vest in The City title to such materials free from claims or liens. Title to materials certified for payment shall vest in The City upon certification of the same for payment. The Contractor, however, agrees to and does assume responsibility for the safety, care and protection of all such materials until they have been finally installed in the work and the completed work accepted by the City, and further agrees at his own cost to replace any such materials that may be lost or damaged. The aforesaid estimates of amount and quantity will not be required to be made by strict measurement, but they may be made by measurement or by estimation, or partly by one and partly by the other, and it shall be sufficient if they are approximate only and estimates strictly so called. Upon each such estimate, made prior to the time of the completion of all work of laying all the sewers and appurtenances and the backfilling of trenches, said estimate being certified in writing by the Borough President and Engineer and filed with the Comptroller, The City will pay to the Contractor eighty-five per centum of the amount stated in such estimate to be the value of the work therein certified to have been done and materials certified therein to have been furnished and installed, and eighty-five per cent. of eight per cent. of the cost not exceeding the contract value of materials not installed hereinabove specified; except that subsequent to the completion of all the work of laying all the sewers and appurtenances and the backfilling of the trenches, The City will pay to the Contractor eighty-five per centum of the value of the work done and materials furnished under the

EXHIBIT C-204 (*continued*).

contract as certified by the Engineer, less the sums theretofore paid to the Contractor. No payment however, will be made unless the value of the work done and materials furnished, certified in each such estimate, shall amount to more than fifteen hundred dollars (\$1500.) and provided, that The City may at all times reserve and retain out of said instalments, or any of them, such sum or sums as by the terms hereof, or of any act of the Legislature of the State of New York, or of any ordinance of The City passed prior to the date hereof, it is or may be authorized to reserve or retain; and provided that where the Contractor, although the lowest bidder in the gross calculation, is to receive unusual or extraordinary prices for any of the different items of the work when considered separately, nothing herein contained shall be construed to affect the right of the President to determine the amount that may be due from time to time, not necessarily by the prices agreed upon in this contract, but by causing an estimate to be made of the value of the work done, taking as a basis of the calculations the whole amount of money that will have become due, according to the terms of this contract, when the whole work shall be completed.

If abandoned, etc.

Contract may be declared abandoned.

Completion of work to be undertaken by President.

30 XLIV. The Contractor hereby agrees that if the work to be done under this contract shall be abandoned by him, or if this contract shall be assigned or the work sublet by him otherwise than is provided by the terms hereof, or if at any time the Engineer shall be of the opinion, and shall so certify, in writing, to the President that the performance of the contract unnecessarily or unreasonably delayed, as evidenced by its actual rate of progress compared with the required progress (See Section XIV); or that the Contractor is wilfully violating any of the conditions or covenants of this contract or the specifications thereof, or is executing the same in bad faith, or not in accordance with the terms thereof, or that the work is not fully completed within the time designated in this contract for its completion, the President may declare this contract or any part thereof abandoned and notify the Contractor to discontinue all work or any part thereof under this contract, by a written notice to be served upon the Contractor either personally, or by leaving said notice at his residence, or with his agent in charge of the work.

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EXHIBIT C-204 (continued).

or in the manner provided in Section XLV, or with any employee found on the work, and the Contractor agrees to thereupon discontinue said work or such part thereof, and he further agrees that the President shall thereupon have the power to contract for the completion of the contract in the manner prescribed by law, or to place such and so many persons as he may deem advisable, by contract or otherwise, to work at and complete the work declared abandoned, and to use such plant and materials as he may find upon the line of work, and to procure other plants and materials for the completion of the same, and to charge the expense of said plant, labor and materials to the Contractor; and it is further agreed that the expense so charged shall be deducted and also liquidated damages for delay in the completion of the work, as provided in Clause XV, shall be deducted and retained by The City out of such moneys as would have been payable to the Contractor if he had completed the work. And in case such expense and liquidated damages shall exceed the sum which would have been payable under this contract, if the same had been completed by the Contractor, he shall and will pay the amount of such excess to The City; and in case such expense and liquidated damages shall be less than the sum which would be payable to the Contractor, if the Contractor had completed the contract, he shall be entitled to the difference, subject to all the other terms, covenants and conditions of this contract. Upon the President signing the aforesaid written notice to the Contractor to discontinue all or any part of the work, he shall have the right to take immediate possession on behalf of The City of the plant and materials upon the line of work, without notice to the Contractor, for the purpose hereinbefore specified, and no such plant or materials shall be removed so long as the same may be wanted for the work. In the computation of liquidated damages for delay in completion of the work, the time taken by The City or given to the new Contractor to whom the contract for the completion of this contract may be awarded, as well as the time taken in advertising and awarding such contract, shall be added to the time consumed by the Contractor under this contract up to the date when The City shall take the action provided in this clause, and from such total there shall be deducted the time allowed to the Contractor for completing the work under this contract. When any particular part of the work shall be carried on by The City by contract or otherwise under the provisions of this clause of the contract, the Contractor agrees to continue the remainder of the work in conformity with the terms of this contract and in such manner as in nowise to hinder or

EXHIBIT C-204 (*continued*).

interfere with the persons or workmen employed, as above provided by The City by contract or otherwise to do any part of the work, or to complete the same under the provisions of this clause of the contract. In the event of the President undertaking to have performed the work or any part thereof under this clause of the contract, his certificate as to the amount of work done, cost, and of the excess cost, if any, of completing the work called for by this contract shall be binding and conclusive upon the Contractor, his assignees and his sureties.

Notice to Contractor.

XLV. It is agreed that the residence or place of business, given in the bid upon which this contract is founded, is hereby designated as the place where all notices, letters and other communications shall be served, mailed or delivered. It is further agreed that any notice, letter or other communication addressed to the Contractor and delivered at the abovenamed place, or deposited in a postpaid wrapper in any post-office box regularly maintained by the post-office, shall be deemed sufficient service thereof upon the Contractor. It is also further agreed that the place named may be changed at any time by an instrument in writing, executed and acknowledged by the Contractor and delivered to the President. It is also further agreed that nothing herein contained shall be deemed to preclude or render inoperative the service of any notice, letter or other communication upon the Contractor personally.

Labor Law.

XLVI. The Contractor agrees that he will comply with the provisions of "The Labor Law". He further agrees that no laborer, workman or mechanic in the employ of the Contractor, sub-contractor or other person doing or contracting to the whole or a part of the work contemplated by the contract, shall be permitted or required to work more than eight hours in any one calendar day, except in cases of extraordinary emergency, caused by fire, flood or danger to life or property; that the wages to be paid for a legal day's work or upon any material to be used thereon shall not be less than the prevailing rate for a day's work in the same trade or occupation in the locality where such public work is being constructed. Each such laborer, workman or mechanic shall receive the prevailing rate of wages. This contract shall be void and of no effect unless the person or corpora-

EXHIBIT C-204 (*continued*).

tion, making or performing the same shall comply with the provisions of section 222 of the Labor Law.

No-estoppel.

10 XLVII. The City shall not, nor shall any Department or officer thereof be precluded or estopped by any return or certificate made or given by the President, any Engineer or other officer, agent or appointee of The City under any provision of this contract from at any time (either before or after the final completion or acceptance of the work and payment therefor pursuant to any such return or certificate), showing the true and correct amount, quality and character of the work done and materials furnished by the Contractor, or any other person under this contract, or from showing at any time that any such return or certificate is untrue and incorrect or improperly made in any particular, or that the work and materials, or any part thereof do not in fact conform to the contract; and The City shall not be precluded or estopped, notwithstanding any such return or certificate or payment in accordance therewith, from demanding and recovering from the Contractor such damages as it may sustain by reason of his failure to comply with the contract.

Understanding of plans and specifications.

30 XLVIII. The Contractor hereby distinctly and expressly declares and acknowledges that, before the signing of this contract, he has carefully read the same, and the whole thereof, together with and in connection with the plan and specifications, and that he has made such examination of this contract and of said plan and specifications, and the location where the said work is to be done, and such investigation of the work required to be done, and in regard to the material required to be furnished, as to enable him to thoroughly understand the intention of the same, and the requirements, covenants, agreements, stipulations and restrictions contained in this contract and in said plan and specifications; and distinctly agrees that he will not hereafter make any claim or demand upon The City, based upon or arising out of any alleged misunderstanding or misconception on his part of the said requirements, covenants, stipulations and restrictions; and that any information given to the Contractor by the Engineer or others as to the quantities in the work, prior to, or during the progress of the work shall have no bearing or effect whatsoever, upon the total amount of work to be paid for, in the final settlement.

EXHIBIT C-204 (*continued*).

Substitution of sureties.

10 XLIX. Should the Comptroller at any time deem the sureties under the contract to be unsatisfactory, he shall notify the Contractor to that effect and the Contractor shall, when so notified, forthwith submit in substitution new sureties acceptable to the Comptroller. No further payments shall be deemed due or shall be made until the new sureties shall qualify and be accepted by the Comptroller.

[Chapter 478, Law 1916.]

20 L. This contract shall be void and of no effect unless the person or corporation making or performing the same shall secure compensation for the benefit of, and keep insured during the life of this contract, the employees engaged thereon, in compliance with the provisions of Chapter 41 of the Laws of 1914, known as the Workmen's Compensation Law, and acts amendatory thereof.

IN WITNESS WHEREOF, The President of the Borough of Queens, for and on behalf of The City of New York, and Contractor have executed this agreement in triplicate, one part of which is to remain with the President, one other to be filed with the Comptroller of The City of New York, and the third to be delivered to the Contractor.

30

THE CITY OF NEW YORK

By MICHAEL J. SHUGRUE,

Acting President of the Borough of Queens.

ANGELO PAINO,

40

Contractor.

EXHIBIT C-204 (*continued*).

The City and State of New York,
County of Queens, ss.:

10 On this 25th day of November, 1924, before me personally came Michael J. Shugrue, to me known and known to me to be the Acting President of the Borough of Queens, of the City of New York, the person described as such in and who as such executed the foregoing instrument, and he acknowledged to me that he executed the same as said Acting President for the purposes therein mentioned.

JEFFERSON J. REILLY,
Commissioner of Deeds, New York City.

20

The City and State of New York, ss. :
County of Queens,

30 On this 15th day of November, 1924, before me personally came Angelo Paino, to me known and known to me to be the same person described in and who executed the foregoing instrument, and he acknowledged to me that he executed the same for the purposes therein mentioned.

JEFFERSON J. REILLY,
Commissioner of Deeds, New York City.

40

EXHIBIT C-204 (*continued*).

KNOW ALL MEN BY THESE PRESENTS, That we, ANGELO PAINO, hereinafter called the "Contractor," and United States Fidelity and Guaranty Company and Fidelity and Deposit Co. of M'd hereinafter called the "Sureties", are held and firmly bound unto The City of New York, in the sum of One hundred thousand DOLLARS, lawful money of the United States of America, to be paid unto THE CITY OF NEW YORK, or to its certain attorneys, successors or assigns; for which payment, well and truly to be made, we and each of us do bind ourselves, and our several and respective heirs, executors, administrators and assigns, jointly and severally, firmly by these presents.

Signed, sealed and dated this 15th day of Nov., 1924.

WHEREAS, The above bounden Contractor, by an instrument in writing, signed by said Contractor and bearing even date with these presents, one part whereof is hereto annexed, has contracted with The City of New York, by the President of the Borough of Queens, to furnish all the labor and materials, and to excavate for, build, construct and in all respects complete sewer, etc., in Broadway, from St. James Place to Elmhurst Ave., etc., Second Ward, together with all the work incidental thereto, as is fully and at large set forth and described in the contract aforesaid.

NOW, THEREFORE, The condition of the above obligation is such that if the said above bounden Contractor and its, his or their heirs, executors, administrators and assigns, or any or either of them, shall well and truly, and in a good, sufficient and workmanlike manner, perform or cause to be performed the said contract, and each and every of the covenants, promises, agreements and provisions therein contained to be performed by said Contractor, and complete the same within the period therein stipulated, and in each and every respect comply with the conditions therein contained, then this obligation to be void; otherwise, to remain in full force and virtue.

ANGELO PAINO [L. S.]

Contractor.

United States Fidelity and Guaranty Company [L. S.]

By C. D. MARSAC,

Attorney-in-Fact.

EXHIBIT C-204 (*continued*).

Attest. WILLIAM H. EASTWICK,
Attorney-in-Fact.

Fidelity and Deposit Company of Maryland [L. S.]

10

By LOUIS C. FIELDS,
Attorney-in-Fact.

Attest: HELEN PETERSEN,
Attorney-in-Fact.

#277328-24

20

The City and State of New York,
County of New York, ss.:

On this 15th day of November, 1924, before me personally came ANGELO PAINO, to me personally known and known to me to be the same person described in and who executed the foregoing bond or obligation, and severally acknowledged that he executed the same.

30

JEFFERSON J. REILLY,
Commissioner of Deeds, City of New York.

40

EXHIBIT C-204 (continued).

F U N D S

10

PRESIDENT'S CERTIFICATE.

Funds O.K.R.

20 It is hereby certified that the estimated cost of the work and materials required by the within contract is Two hundred five thousand four hundred thirty eight 93/100 DOLLARS (\$205,438.93), and is chargeable to the Street Improvement Fund of The City of New York.

MICHAEL J. SHUGRUE,

Acting President of the Borough of Queens.

The City of New Work, November 26, 1924.

30

40

EXHIBIT C-204 (continued).

SPECIFICATIONS

TRENCHES.

10

Length of trench.

1. Unless otherwise directed or permitted not more than 200 feet of any trench in advance of the end of the built sewer shall be open at any time; and unless written permission to the contrary is given, the trench shall be excavated to its full depth for a distance of at least 20 feet more than the minimum length of sewer permitted to be laid in it. (See paragraphs 127 and 154.)
- 20 Trenches for house connection drains shall not be open on both sides of the street at the same time, unless permission has previously been given to close the street. Unless otherwise directed each trench for house connection drains shall be fully excavated for its entire length before any pipes are laid therein.

Sheeting and bracing.

2. Where necessary, the sides of the trenches and excavation sheeting may be used only where shown on the plan or directed. 30 sheeting shall be supported by adequate sheeting and bracing. Steel sheeting and bracing will be paid for only when left in place by written order, in which event the amount left in place will be paid for at the contract price for such material, unless specially permitted, sheeting against which concrete is placed shall not be removed and will not be paid for. The Contractor will be held accountable and responsible for the sufficiency of all sheeting and bracing used, and for all damage to persons or property resulting from the improper quality, strength, placing, maintaining or removing of the same.
- 40

Sheeting in soft material.

3. Where the material to be excavated is of such a character as to render it necessary, the sheeting shall be closely driven and to such depth below the bottom of the sewer as may be directed.

EXHIBIT C-204 (continued).

Tunneling.

4. All work shall be done in open trenches or excavations; no tunneling shall be done except with the consent of the Engineer.

10 Trees and stumps.

5. The Contractor shall grub and clear the surface over the trenches and excavations of all trees and stumps and remove the same from the work.

Materials to be disinfected.

20 6. If required, any or all of the excavated material shall be satisfactorily disinfected or deodoried or immediately removed from the work.

Roadway, sidewalks, etc., to be kept clear.

30 7. The excavated material and materials of construction shall be so deposited, and the work shall be so conducted as to leave open and free for traffic all crosswalks, a space on each sidewalk not less than one-third the width of such sidewalk and unless permission is given to the contrary a roadway not less than 8 feet wide for the free passage of vehicles. Street hydrants, water gates, fire alarm boxes and letter boxes shall be kept accessible for use. During the progress of the work the Contractor shall maintain such crosswalks, sidewalks and roadways in satisfactory condition, and the work shall at all times be so conducted as to cause a minimum of inconvenience to public travel, and permit of safe and convenient access to private and public property along the line of work.

Surplus material.

40 8. If all of the excavated material cannot be stored on the street in such a manner as to maintain the traffic conditions hereinbefore specified, the surplus shall be removed from the work and stored. After the construction of the sewer so much of this material as is of satisfactory quality and necessary for the purpose shall be brought back and used for backfilling the trench.

EXHIBIT C-204 (continued).

Fence.

9. Where necessary a suitable fence shall be placed along the sides of the trenches to keep the streets safe for traffic.

Temporary bridges.

- 10 10. Where any crosswalk is intersected by the trench, it shall be temporarily replaced by a substantial timber bridge not less than 3 feet wide, with side railings. Where required, suitable temporary bridges for vehicles shall be provided and maintained across the trench.

Disposal of water from trenches.

- 20 11. The Contractor shall at all times during the progress of the work keep the trench and excavations free from water. The water from the trenches and excavations shall be disposed of in such a manner as will not cause injury to the public health, nor to public or private property, nor to the work completed or in progress, nor to the surface of the streets, nor cause any interferences with the use of the same by the public.

Cost to be covered.

- 30 12. The cost of all labor required to be done and all materials required to be furnished in the performance of all the work specified in paragraphs 1 to 11 inclusive, except as otherwise provided, shall be covered by all the contract prices for all the items for which there are contract prices.

EARTH EXCAVATION.

- 40 13. Earth excavations shall include the removal of all material other than ledge rock.

Width of trench for sewers, etc.

14. The minimum widths of trenches in earth for pipe sewers, house connections and other drains not over 18 inches in diameter, shall be such as to give a clearance inside the sheeting of 8 inches on each side of the pipe, and for those of larger

EXHIBIT C-204 (*continued*).

diameter 10 inches on each side of the pipe, exclusive of spurs and hubs. The minimum widths of trenches in earth, inside the sheeting, for other sewers shall be the greatest external width of the structures, including the necessary forms, to be built therein.

- 10 15. Where a manhole or other appurtenance or the foundation therefor extends beyond the exterior line of the sewer or its foundation, the minimum excavation in earth required for the same shall be that contained in a prism with vertical sides and a horizontal section equal to the smallest rectangle which will enclose such appurtenance and its foundation.

Excavation for basin manholes, etc.

- 20 16. The minimum dimensions of the excavation in earth, for brick basin manholes and inlets shall be such as to give a clearance inside the sheeting of 1 foot on all sides, above the foundation, but in any cases the excavation shall be large enough to include the foundations for such structures shown on the plan. The excavation for concrete basin manholes, and inlets shall be of such dimensions as to permit the proper placing and removal of the necessary forms.

Depth of trenches.

- 30 17. The trenches shall be excavated to the depths required for the foundations of the sewers and appurtenances shown on the plan, and where the conditions are such as to make it necessary, to such additional depths as may be directed. Where pipe is laid without a cradle, the bottom of trenches shall be excavated to fit the lower third of the pipe, and excavations shall be made to receive the hubs. All irregularities in the bottoms of the trenches shall be filled up to the required grade with suitable material.

- 40 Cost to be covered.

18. The cost of all labor required to be done and all materials required to be furnished in the performance of all the work specified in paragraphs 15 to 17 inclusive, except as otherwise provided, shall be covered by all the contract prices for all the items for which there are contract prices.

EXHIBIT C-204 (continued).

BACKFILLING.

Backfilling around sewers, etc.

- 10 29. Unless otherwise specified or directed, all trenches and excavations shall be backfilled immediately after the structures are built therein. For a depth of at least 2 feet over the top of the sewers, house connection or other drain, the material for backfilling trenches as excavated shall be clean earth, sand or rock dust. It shall be carefully deposited in uniform layers not exceeding 6 inches in depth, and unless otherwise permitted, each layer shall be carefully and solidly tamped with appropriate tools in such a manner as to avoid injuring or disturbing the completed work.

20 Backfilling for remainder of trench.

30. Backfilling for the remainder of the trenches as excavated shall be approved material free from organic matter and containing no stones over 10 inches in their largest dimensions. Any stones shall be so distributed through the mass that all interstices are filled with the fine material. This backfilling shall be deposited as directed, and unless otherwise permitted shall be spread in layers and solidly tamped.

30 Backfilling around basin manholes, etc.

31. Backfilling within 2 feet of manholes, house connection drains, and other structures shall be of the same quality as that specified in paragraph 29. It shall be uniformly deposited on all sides and unless otherwise permitted, solidly tamped in such a manner as to avoid injuring the structures or producing unequal pressures thereon.

Puddling.

40

32. Backfilling shall, if required, be flooded or puddled with water as the work progresses, instead of being tamped.

33. When sheeting is drawn, all cavities remaining in or adjoining the trench shall be solidly filled. When sheeting is left in place, all cavities behind such sheeting shall be solidly filled as directed.

EXHIBIT C-204 (*continued*).

Deficiency of filling.

10 34. Unless otherwise shown on the plan, the trenches shall be backfilled to the height of the surface of the ground as it existed at the commencement of the work. Should there be a deficiency of proper material for the purpose, the Contractor shall furnish and place such additional material as may be required.

Temporary bulkheads.

35. For retaining the backfilling only temporary bulkheads will be allowed over sewers, basin connections and drains. Such bulkheads shall be of stone, and they shall be removed as the trenches are backfilled.

20 Curves, branches, etc., not to be covered.

36. Basin connections, house and sewer connections and intersections, ends of sewers and branches shall not be covered until the Engineer shall have inspected, measured and located the same, and given permission to backfill the trenches over them.

Removal of surplus material.

30 37. As the trenches are backfilled, the Contractor shall remove all surplus material and regrade and leave free, clear and in good order all roadways and sidewalks. During the progress of and until the final acceptance of the work, he shall maintain in good and safe condition the surface of the street over all the trenches, and promptly fill all depressions over and adjoining the trenches caused by settlement of the backfilling. In case of failure or neglect on the part of the Contractor to comply with the requirements of this paragraph within 24 hours after the service upon him of a written notice so to do, the President may furnish all materials and do all work required, and the
40 cost thereof will be charged to the Contractor and deducted from any moneys due or to become due him under this contract. All surplus material or any part thereof shall, if required, be deposited as directed on the streets and avenues within the limits of this contract, where the same are below grade, and in such a manner as to leave the surfaces of the filled material even.

EXHIBIT C-204 (*continued*).

Cost covered.

10 38. The cost of all labor required to be done and all materials required to be furnished in the performance of all the work specified in paragraphs 30 to 37 inclusive, shall be covered by all the contract prices for all the items for which there are contract prices.

CEMENT.

20 39. All cement used in the work shall be a high grade Portland cement of a well-established and approved brand. It shall be the product obtained by finely pulverizing clinker produced by calcining to incipient fusion, an intimate mixture of properly proportioned argillaceous and calcareous substances, with only such additions subsequent to calcining as may be necessary to control certain properties. Such additions shall not exceed 3 per cent. by weight, of the calcined product.

Specific gravity; weight.

30 40. The cement shall have a specific gravity of not less than 3.10 after being thoroughly dried at 212° F. It shall weigh not less than 380 pounds net, to the barrel, 4 bags of 95 pounds each being considered equivalent to a barrel.

Fineness.

41. The cement shall be dry, finely ground, of uniform color and free from lumps. It shall leave a residue of not more than 8 per cent. by weight, when passed through a No. 100 sieve, and not more than 25 per cent. when passed through a No. 200 sieve.

40 Tensile strength.

42. Standard briquettes shall develop within the periods specified, tensile strength not less than that shown in the following table:

EXHIBIT C-204 (continued).

	Lbs. per sq. in.
Neat Cement:	
24 hours	175 pounds per sq. in.
7 days (1 day in moist air, 6 days in water)	500 pounds per sq. in.
28 days (1 day in moist air, 27 days in water)	600 pounds per sq. in.
10 Mortar consisting of 1 part cement and 3 parts of Standard Ottawa Sand, by weight:	
7 days (1 day in moist air, 6 days in water)	180 pounds per sq. in.
28 days (1 day in moist air, 27 days in water)	225 pounds per sq. in.

20 The average of the tensile strenghts developed at each age by the briquettes in any set made from one sample will be considered the strength of the sample at that age, excluding any results that are manifestly faulty. The average strength of briquettes at 28 days shall be greater than the average strength at 7 days, and if tests are made after 28 days the strength shall be not less than that at 28 days.

Soundness.

30 43. Pats of neat cement when tested for constancy of volume or soundness shall remain firm and hard and show no sign of checking, cracking, distortion or disintegration.

Setting.

40 44. Unless otherwise required, the cement shall not develop initial set in less than 30 minutes, and shall develop final set in not less than 1 hour nor more than 10 hours. Quick-seeting cement of an approved brand shall, if required, be kept on the work in sufficient quantity to provide for any contingency requiring the use of the same.

Testing.

45. The cement will be subjected to such tests as the Engineer may deem necessary, and such test will be made in accordance with the methods recommended by the Committe on Uniform Tests of Cement of the American Society of Civil En-

EXHIBIT C-204 (continued).

gineers, except that the time of setting will usually be determined by means of the Gillmore needless. In case of dispute as to the time of setting, this test will be made by means of the Vicat needle.

Retesting.

- 10 46. Any cement which shall have been kept in storage after testing for a sufficient time to warrant it, shall be retested. Any prior acceptance shall be considered void and the acceptance or rejection of the cement shall depend upon the results of the latest tests.

Approval of brand may be rescinded.

- 20 47. The Engineer may at any time rescind the approval of any brand of cement that develops objectionable qualities.

Samples.

- 30 48. The Contractor shall notify the Engineer of the arrival of cement on the work, and furnish such facilities as may be required for obtaining samples for testing. Samples will be taken so as to fairly represent the material. The number of packages sampled and the quantity to be taken from each will depend upon the importance of the work and the number of tests to be made.

Delivery and storing.

- 40 49. Cement shall be delivered on the work in barrels or approved bags of uniform size, with the brand and name of the manufacturer plainly marked thereon; it shall be immediately stored in a dry place and carefully protected from the weather. A sufficient stock of cement shall be kept on the work in advance of the necessity for its use to permit of the making of the required seven day tests. Except by written permission, no cement shall be used before it had been tested and accepted, and any concrete or masonry which may have been made under such permission with cement that is subsequently rejected, shall be removed and replaced by the Contractor, at his own expense, with concrete or masonry made of accepted cement.

EXHIBIT C-204 (*continued*).

Cost to be covered.

50. The cost of furnishing, storing and incorporating cement in the work, and the cost of samples required for testing, shall be covered by the contract prices for the structures or classes of work in connection with which the cement is used.

10

MORTAR.

51. All mortar used in the work, unless otherwise specified, shall be composed of 1 volume of cement, as in the original package, and $2\frac{1}{2}$ volumes of sand. Where required, mortar of cement and sand in other proportions or mortar of neat cement shall be used as directed.

20 Sand.

52. Sand shall be composed of grains of clean sharp quartz, not softer than hard limestone. It shall be moderately coarse and preferably made up of grains of varying size not exceeding one-quarter ($\frac{1}{4}$) inch producing a mass with low percentage of voids. It shall not contain, in all, more than five (5) per cent. by volume of clay, loam, mica, scales, silt, or other objectionable inorganic matter, nor more than one (1) per cent. of organic matter.

30

Tests may also be made of the cement and sand used in the proportions of one (1) part cement to three (3) parts sand, and these tests must show at least 70 per cent. of the strength of the mortar made with the cement and standard sand, or the sand may be rejected.

Mixing.

40

53. Mortar shall be mixed in a suitable box or on a tight platform, and never upon the pavement or ground. The cement and sand shall be thoroughly mixed dry, until the mixture has a uniform color. Clean, fresh water shall then be added and the mass worked until a mortar, which is uniform and of the required consistency is produced. The mortar shall be mixed in no greater quantity than is required for the work in hand, and any that has set sufficiently to require retempering shall not be used.

EXHIBIT C-204 (*continued*).

Freezing weather.

54. The mixing and use of mortar in freezing weather shall be subject to the same requirements as hereinafter specified for mixing and placing concrete under similar conditions.

Cost covered.

10

55. The cost of all labor and materials required to furnish and place the mortar in the work, as specified, shall be covered by the contract price for the structure or class of work in connection with which the mortar is used.

CONCRETE.

Class A concrete.

20

56. Class A concrete shall be made of 1 part of cement, 2 parts of sand and 4 parts of broken stone or gravel.

Broken stone or gravel.

30

57. Broken stone for Class A concrete shall be approved trap rock, dense fine-grained blue limestone or granite broken into roughly cubical or pyramidal fragments. Broken stone which contains dust, loam, clay, organic matter or other improper substances shall not be used. Broken stone for Class A concrete shall be the run of the crusher that will pass through a screen with circular openings $1\frac{1}{4}$ inches in diameter and shall be retained on a screen with openings $\frac{1}{8}$ -inch in diameter. Gravel shall be equal in quality to North Shore Long Island gravel, shall be clean and sound, and shall be of the sizes herein specified for broken stone.

Measuring ingredients.

40

58. For the purpose of determining the proportions of the materials for concrete, each bag of cement will be considered as containing $\frac{9}{10}$ cubic foot, and the other ingredients shall be measured by an approved method.

Water.

59. Only clean fresh water shall be used for concrete.

EXHIBIT C-204 (*continued*).

Mixing.

60. Unless permitted to be mixed by hand, concrete shall be mixed in approved mechanical batch mixers, so constructed and operated that the ingredients of the concrete may be accurately measured and thoroughly mixed. Enough water shall be added during the mixing to bring the concrete to the required consistency, which generally shall be such that the concrete may be poured into place without causing the separation of the stones from the mortar. When concrete is mixed by hand the broken stone or gravel shall be spread on a tight platform in a bed about 6 inches deep and shall be thoroughly wetted. The cement and sand shall be mixed dry on a suitable platform, until the mixture has a uniform color. This mixture shall be spread evenly on the bed or wet stone, water added, and the entire mass turned until each piece of stone is entirely coated with mortar and a concrete produced which is uniform and of the consistency herein specified for machine mixed concrete. When a comparatively dry concrete is required it shall be mixed to such consistency as may be directed.

Placing concrete.

61. Concrete shall be mixed only in such quantity as is required for the work in hand, and any that has set sufficiently to require retempering shall not be used. Any concrete in which the water has separated from the solid matter shall be satisfactorily remixed before being placed. The concrete shall be so deposited in the work as to prevent the separation of the stone from the mortar. It shall be deposited in as nearly a continuous operation as practicable and shall be tamped or spaded with suitable tools to expel air bubbles and produce a dense and compact mass. When the operation of placing concrete is interrupted the concrete in the work shall, if required, be confined by suitable temporary forms or bulkheads. When concrete is to surround reinforcing metal, structural steel, or wire netting, it shall be so deposited as to work closely around such material. When a comparatively dry concrete is used it shall be deposited in horizontal layers not exceeding 6 inches in depth and solidly tamped.

Joining old and new concrete.

62. When fresh concrete is to be laid on or adjoining concrete already set, the surface of the latter shall be thoroughly

EXHIBIT C-204 (*continued*).

cleaned, washed, and roughened, and coated with a grout of neat cement before the fresh concrete is deposited.

Forms and centers.

10 63. The Contractor shall provide all necessary forms and centres for shaping concrete wherever used. They shall be true to the required shapes and sizes, strong enough and so secured in place as to withstand all operations incidental to placing the concrete, and watertight, and the faces against which the concrete is to be placed shall be satisfactorily smooth and clean. Timber used in forms and centres for exposed faces of concrete shall be seasoned stock. Unless otherwise permitted, those surfaces of formes and centres which will be in contact with concrete shall be coated as directed with an approved lubricant; when no lubricant is required such surfaces shall be thoroughly
20 wetted just before the concrete is placed.

Removal of forms and centers.

64. The forms and centres shall be left in place until the concrete has set sufficiently to permit their removal without danger to the structure, and until so much of the backfilling or embankment as may be directed has been put in place. No forms or centres shall be struck or removed until permission to do so has been given.

30 Exposed surfaces.

65. Special care shall be used to secure a smooth and uniform finish to the surfaces of concrete which will be exposed in the completed structure. Immediately after the removal of the forms, such surfaces, if uneven, shall be rubbed smooth to a uniform and satisfactory finish. All exposed edges of concrete shall be neatly rounded as directed, and if any voids, projections or other imperfections be found, such defects shall at once be
40 corrected by tooling, cutting out and filling with mortar, or otherwise, as directed.

Depositing concrete under water.

66. Whenever it becomes necessary to place concrete under water, it shall be deposited by means of drop-bottom buckets or other approved method. Concrete so deposited shall be carefully spread without tamping.

EXHIBIT C-204 (*continued*).

Freezing weather.

67. In freezing weather, until the temperature falls to 24° F. the water used for concrete shall, if directed, be heated to an approved temperature, and if directed, 1 per cent. by weight of salt shall be added to the water for each degree Fahrenheit that the temperature of the air is below 32° F. The other materials for the concrete shall be heated sufficiently to remove all frost and ice. No concrete shall be laid when the temperature of the air is below 20° F.

Protection.

68. Concrete shall be allowed to set for such time as may be directed before being worked or walked upon, or before filling, backfilling or other material is placed upon or against it. It shall not be flooded with water until it has sufficiently set. Concrete shall be carefully protected from injury, from freezing and from the drying effects of the sun and wind by covering it with canvas, bagging, hay or other suitable and approved materials. Such protection shall be placed as soon as the concrete is in condition to receive it, and except in freezing weather, the covering as well as the concrete shall be kept wet for such time as may be directed.

Prices to cover.

69. The cost of all concrete and the requirements specified in connection therewith shall be covered by the contract price for the structure in connection with which it is used.

BRICK MASONRY.

Quality of bricks.

70. All bricks used in the work shall be sound and hard burned throughout, and of uniform size and quality. If required the bricks shall be culled immediately after they are brought on the work and all bricks which are wrapped, craked or of improper quality shall be at once removed. The proportion of bats permitted will be determined according to the character and location of the work in which they are to be used.

EXHIBIT C-204 (*continued*).

How laid.

71. Bricks shall be satisfactorily wet when being laid and each brick shall be laid in mortar so as to form full bed, end and side joints in one operation. The joints shall be not wider than $\frac{3}{8}$ inch, except when the bricks are laid radially, in which case the narrowest part of the joint shall not exceed $\frac{1}{4}$ inch. The
10 bricks shall be laid in a workmanlike manner, true to line, and wherever practicable the joints shall be carefully struck and pointed on the inside. Brickwork shall be laid with a satisfactory bond, and as it progresses shall be racked back in courses, unless otherwise permitted.

BRICKWORK.

20 Protection.

72. All fresh brickwork shall be carefully protected from freezing and from the drying effects of the sun and wind, and if required, it shall be sprinkled with water at such intervals and for such a time as may be directed. Brickwork shall be protected from injuries of all sorts, and all portions which may become damaged or may be found defective shall be repaired, or if directed, be removed and rebuilt.

30 Freezing weather.

73. In freezing weather bricks shall be heated sufficiently to remove all ice and frost.

Cost of brick masonry.

74. The cost of all brick masonry and the requirements specified in connection therewith shall be covered by the contract price for the structure in connection with which it is used.
40

STRUCTURAL STEEL.

Quality.

75. Structural steel shall be medium steel and rivet steel made by the open hearth process and shall conform to the latest

EXHIBIT C-204 (*continued*).

revised Standard Specifications for Structural Steel for Buildings adopted by the American Society for Testing Materials, and such tests as may be required shall be made in accordance therewith and at the places hereinafter specified. The chemical and physical properties of the steel shall be as follows:

10	Properties Considered	Medium Steel	Rivet Steel
	Phosphorus (maximum)	0.06 per cent.	0.06 per cent.
	Ultimate strength, lbs. per sq. in.	55,000-65,000	48,000-58,000
	Yield point (minimum), lbs. per sq. in.	$\frac{1}{2}$ ult. tens. str.	$\frac{1}{2}$ ult. tens. str.
	Elongation, per cent. in 8 in. (minimum)	1,400,000	1,400,000
20		ult. tens. str.	ult. tens. str.
	Character of fracture	Silky	Silky
	Cold bend without fracture . . .	180° to diam. of 1 thickness	180° flat

Finish.

30 76. All finished material shall be free from injurious seams, flaws and cracks, and have a workmanlike finish.

Variation in weight.

40 77. When steel is inspected at the mill or shop all pieces (except plates), which vary in weight more than $2\frac{1}{2}$ per cent. from that specified shall be rejected; when steel is not inspected until it is delivered on the work such variation in weight will be sufficient cause for rejection when, in the judgment of the Engineer, the safety of the work will be impaired thereby.

Workmanship.

78. All structural steel shall be in accordance with the plan and approved shop drawings. All details not shown on the plan, and all workmanship and finish shall be equal to the best current practice in similar work for buildings.

EXHIBIT C-204 (continued).

Anchor bolts.

79. Anchor bolts and expansion bolts shall be furnished where required and set in place as directed. When holes are drilled in masonry or concrete for such bolts, the holes shall be washed clean and the bolts shall be firmly embedded in a mortar composed of equal parts of cement and sand, unless other material is shown on the plan.

Melt numbers.

80. Test specimens and every finished piece of steel shall be stamped with melt or blow number, except that small pieces may be shipped in bundles securely wired together, with the melt or blow number on a metal tag attached.

Tests and inspections.

81. The required tests and inspections of structural steel shall, if directed, be made at the mills and shops by the City's authorized inspector. The Contractor shall notify the City as to the mills and shops which are to supply the steel sufficiently in advance to enable the City to arrange for such tests and inspections and the mills and shops shall afford every facility for making the same.

Mill certificates.

82. If it is decided not to make the City's tests and inspections at the mills, then mill certificates showing the properties of each melt of which the steel is made will be accepted for consideration.

Shipping invoices.

83. The Contractor will be required to furnish complete copies of shipping invoices with each shipment of steel.

Certificates, etc., for information only.

84. Steel will not be accepted until the required inspector's reports or mill certificates are received. All tests, inspections, reports and certificates are for the information of the Engineer, and he shall not be precluded on account thereof from

EXHIBIT C-204 (*continued*).

requiring or making any further tests which he may deem necessary.

Shop drawings.

85. The Contractor shall prepare complete and accurate shop drawings of all steel work, and no shop work shall be done until such drawings shall have been approved. The Contractor shall furnish the Engineer with 3 complete sets of prints of the approved shop drawings.

Painting.

86. All steel shall be thoroughly cleaned of scale, rust, oil and dirt, and unless otherwise directed, those parts which are not to be bedded in concrete shall be painted with a priming coat of the best red lead and linseed oil or such other paint of equivalent value as may be directed. After erection the metal which will be exposed in the finished work shall be evenly painted with 2 coats of approved paint. No painting shall be done on wet surfaces.

Measurement.

87. The amount of structural steel paid for as such will be all structural steel placed in the work in accordance with the plan or directions, except any excess greater than $2\frac{1}{2}$ per cent. above the weight required, and except such structural steel shown on the plan as being part of structures for which there are contract prices, and the cost of which is hereinafter specified to be covered by the contract prices for such structures. This paragraph does not apply to structural steel in screen house.

Price to cover.

88. The contract price for structural steel shall cover the cost of all labor and materials required to furnish, fabricate, erect and paint the same, to furnish all test pieces, to prepare and furnish prints of shop drawings, and to drill holes for and set anchor and expansion bolts, where required, all as specified.

STEEL REINFORCEMENT BARS.

Shape.

89. Steel bars for reinforcing concrete shall be of such shape as to afford an approved mechanical bond with the con-

EXHIBIT C-204 (continued).

crete at frequent intervals and to insure intimate contact between the steel and concrete.

Samples.

10 90. The Contractor shall indicate the type of bars proposed to be used, and if required shall furnish samples thereof, and he is cautioned not to place the order for the bars until the type has been approved.

Size.

91. Each bar shall have a net cross sectional area equivalent to that designated on the plan or required, or it shall be the commercial size of the approved type of bar having a net cross sectional area next larger than that designated or required.

Variation in weight.

20 92. Reinforcement bars will be rejected if their actual weight varies more than 5 per cent. from their theoretical weight as shown by the manufacturer's tables.

Quality.

30 93. All steel for reinforcement bars shall be made by the open hearth process and shall conform to the latest revised Standard Specifications for Steel Reinforcement Bars adopted by the American Society for Testing Materials, and such tests as may be required, shall be made in accordance therewith, and at the places hereinafter specified. The chemical and physical properties of the steel shall be as follows:

Properties Considered	Structural Steel Grade		Cold Twisted Bars
	Plain Bars	Deformed Bars	
Phosporus, max.			
Open Hearth	0.05	0.05	0.10
Bessemer	0.10	0.10	0.05
Ultimate Tensile Strength, pounds per sq. in.	55,000-70,000	55,000-70,000	Recorded only
Yield Point, minimum pounds per sq. in.	33,000	33,000	55,000
Elongation, minimum per cent. in 8 inches	1,400,000	1,250,000	5 per cent.
	tens. str.	tens. str.	
Cold bend without fracture:			
Bars under ¾ in. in diam. or thickness	180° to diam. of 1t.	180° to diam. of 1t.	180° to diam. of 2t.
thickness and over	180° to diam. of 1t.	180° to diam. of 2t.	180° to diam. of 3t.
	t : Nominal thickness or diameter of bar.		

EXHIBIT C-204 (*continued*).

94. Reinforcement bars shall be rolled from billets of new steel; they shall be straight and free from seams, flaws, cracks and imperfections of all kinds.

10 95. Test pieces 18 inches long may be cut from any of the bars delivered on the work, and the failure of any test piece to meet the specified requirements, or the failure of any bar when being bent will be sufficient cause for the rejection of all steel from the melt from which the test piece or bar was made.

96. Bending sheets for steel reinforcement shall be furnished, if required, in which case the reinforcement bars shall not be bent until such bending sheets have been approved.

Delivery and protection.

20 97. Bars shall be delivered in bundles, to each of which shall be securely wired a metal tag with the number of the melt from which the bars were made stamped thereon. The bars shall be protected at all times from mechanical injury and from the weather and when placed in the work they shall be free from dirt, scale-rust, paint and oil. Bars which are not to be embedded in concrete within a short time after being placed in the work shall, if directed, be immediately coated with a thin grout of equal parts of cement and sand.

30 Cutting and bending.

98. The bars shall be bent to the shapes shown on the plan and in conformity with approved templates. When bars are cut and bent on the work, the Contractor shall employ competent men and shall provide the necessary appliances for the purpose.

Placing.

40 99. All bars shall be as long as can be conveniently used, accurately bent, placed, spaced and jointed as shown or directed, and they shall be securely held in their required positions by approved devices until the concrete has been placed around them.

Cost covered.

100. The cost of all steel reinforcement bars and the requirements specified in connection therewith shall be covered by the contract price for the structure in connection with which it is used.

EXHIBIT C-204 (*continued*).

WROUGHT IRON.

Quality.

10 101. Wrought iron shall be double rolled, tough, fibrous and uniform in quality. It shall be thoroughly welded in rolling and be free from surface defects. It shall have an ultimate tensile strength of at least 48,000 pounds per square inch, an elongation of at least 20 per cent. in 8 inches, and a fracture wholly fibrous. Specimens shall bend cold, with the fiber, through 180 degrees around a diameter equal to the thickness of the piece tested. When nicked and bent the fracture shall be at least 90 per cent. fibrous.

20 Galvanizing.

102. Exposed wrought iron shall be thoroughly and uniformly galvanized.

Cost covered.

30 103. The cost of all wrought iron and the requirements specified in connection therewith shall be covered by the contract price for the structure in connection with which it is used.

IRON CASTINGS.

Quality.

40 104. Iron castings shall be of the best foundry pig iron, gray, tough and free from cold shuts, blow holes and other imperfections. The weight shall be conspicuously painted by the manufacturer with white oil paint on each casting. The castings shall be sound, clean and neatly finished. Where required, castings shall be thoroughly coated with coal tar pitch varnish.

Cost covered.

105. The cost of all labor and materials required to furnish coat and place the castings as specified, shall be covered by

EXHIBIT C-204 (*continued*).

the contract price for the structure or class of work in connection with which they are used.

TIMBER SHEETING.

10 Quality, placing, etc.

110. Timber sheeting and the rangers and braces for the same shall be of a satisfactory quality of timber and of sufficient size and strength to adequately support the sides of the trenches and excavations. Sheeting shall be driven in such a manner as to avoid cracking and splitting, and if required for the proper prosecution of the work, shall be tongued and grooved.

20 When paid for.

111. Timber sheeting will be paid for as such only when left in place by written order. When sheeting is left in, so much of it below the surface of the ground as may be directed shall be cut off.

Measurement.

30 112. The amount of timber sheeting to be paid for as such will be all timber sheeting, rangers and braces left in place by written order, and will not include sheeting, dangers and braces left in place without such order, not sheeting left in place because concrete is placed against it, nor that part of the sheeting that extended above the ground after having been driven, the cost of all of which shall be covered by all the contract prices for all the items for which there are contract prices. Inclined piling or planking at the bottom of a trench, if used to prevent the caving in of the excavation and in such a position that it cannot be drawn, shall be paid for at the price bid for sheet piling.

40 Price to cover.

113. The contract price for timber sheeting shall cover the cost of all labor and materials required to furnish, place and cut off the sheeting, rangers and braces as specified, and shall also cover the cost of all excavation necessary to place the same

EXHIBIT C-204 (*continued*).

CONCRETE SEWERS.

(Type "A" or Sewer Department Standard)

Inverts.

10

122. Inverts of concrete sewers shall be formed between transverse templets and shall be screeded. The templets shall be placed at such intervals as to divide the invert into sections of suitable size for convenient construction, and unless otherwise permitted, the concrete shall be deposited in alternate sections and allowed to set before the remaining sections are built. Unless otherwise shown on the plan, a layer of mortar not less than $\frac{1}{2}$ -inch thick shall be spread evenly and to a smoothly finished surface upon the concrete of the invert as soon as such concrete is in place. Where the radii of inverts are too short to permit screeding between templets, the inverts shall be shaped by means of suitable forms, which shall be removed as soon as the concrete has a sufficient set, and if required, the surfaces of inverts shall be floated or troweled to a smooth finish. The concrete for inverts shall be deposited continuously for their entire cross sections and for such longitudinal distances as may be convenient. Inverts shall be carefully protected from all injury during progress of the work.

20

30

Side walls.

123. Concrete in the side walls of sewers shall be deposited continuously to the height directed and for such longitudinal distances as may be convenient.

Roof.

40

124. Concrete in the roofs of sewers shall be deposited continuously for the full depths and widths of the roofs and for such longitudinal distances as may be convenient. The outer surfaces of roofs shall be finished with an excess of mortar and left true and smooth. They shall be covered and protected as specified in paragraph 68, and such covering shall remain thereon until the backfilling or embankment is placed.

EXHIBIT C-204 (*continued*).

Bulkheads.

- 10 125. While being deposited the concrete for sewers shall be confined by temporary, vertical bulkheads placed at such intervals longitudinally as may be required for convenient working. The bulkheads shall be so designed as to give an approved shape to the end of the section of concrete under construction, shall be satisfactorily secured in place before the concrete is deposited, and shall remain in place until the concrete has set sufficiently to hold its shape.

Reinforcement.

- 20 126. Where shown on the plan concrete sewers shall be reinforced with metal of the dimensions and shapes shown, and of the quality and in the manner hereinbefore specified.
- 20 Minimum length of invert.

127. Unless otherwise permitted or ordered, not less than 16 feet of foundation or invert for concrete sewer shall be built at one operation.

Connections.

- 30 128. Connections and branches for lateral sewers and receiving basins shall be built in where shown on the plan or where directed. Such connections and branches shall be closed with bulkheads of brick masonry 8 inches thick unless otherwise shown on the plan. All necessary openings and bulkheads for branch sewers shall be built in concrete sewers where shown on the plan or where directed.

Measurements.

- 40 129. The lengths of concrete sewers will be determined by horizontal measurements, along their centre lines. No deductions will be made on account of openings at branches and manholes. The measurement of a branch concrete sewer will be made from the inner surface of the wall of the main sewer through which it enters. A reducer will be paid for at the contract price for the sewer at the larger end thereof.

EXHIBIT C-204 (continued).

Price to cover.

10 130. The contract prices for concrete sewers shall cover the cost of all necessary excavation (except rock); of furnishing, maintaining and removing all forms, centres, templets and temporary bulkheads; of all openings and bulkheads; of all back-filling; and of all labor and materials required to construct concrete sewers as shown by the normal sections on the plan and as specified.

TYPE "B"

CEMENT CONCRETE PIPE WITH REINFORCEMENT

20 131. Reinforced cement concrete pipe used shall be circular in section with or without that base and shall conform in dimensions as shown in table.

General dimensions of pipes and minimum test load per lin. ft. of pipe.

	Size	Minimum thick-ness	Minimum length in feet	Minimum joint length inches	Minimum test load per lin ft. of pipe
30	24"	3 "	4'	3 "	3350 Lbs.
	27"	3 1/2"	4'	3 "	3700 "
	30"	3 1/2"	4'	3 "	4400 "
	33"	4 "	4'	3 "	4600 "
	36"	4 "	4'	4 "	4800 "
	39"	4 "	4'	4 "	5200 "
	42"	4 1/2"	4'	5 1/2"	5600 "
	45"	4 1/2"	4'	5 1/2"	6100 "
	48"	5 "	4'	5 1/2"	6600 "
	40	51"	5 "	4'	5 1/2"	7050 "
54"		5 1/2"	4'	5 1/2"	7500 "
57"		5 1/2"	4'	5 1/2"	7750 "
60"		6 "	4'	5 1/2"	8000 "
63"		6 "	4'	5 1/2"	8400 "
66"		6 1/2"	4'	5 1/2"	8800 "
72"		7 "	4'	5 1/2"	9400 "
78"		8 "	4'	5 1/2"	10400 "
	84"	8 "	4'	5 1/2"	11200 "

EXHIBIT C-204 (continued).

90"	8½"	4'	5½"	12000	"
96"	8½"	4'	5½"	12800	"
102"	9 "	4'	5½"	13600	"
108"	9 "	4'	5½"	14400	"

Testing pipe.

- 10 Reinforced concrete pipe shall not have less thickness of concrete, less length of pipe or joint than specified above, and two (2) pipes, for each size of sewer (reinforced concrete) shall be selected at random for a load test. These pipes shall be tested at the age of twenty-one (21) days and the total load specified per lineal foot shall be applied on the upper half of the sewer. The lower half of the pipe shall be supported in a cradle covering an arc 180 degrees. The pipe shall sustain these loads per lineal foot without hair-cracks of any kind whatsoever. Failure to fulfill the above requirements in the manner set forth will be sufficient cause for the rejection of the pipe. Testing of pipe shall be done by the contractor at his own expense and under the supervision and to the satisfaction of the Engineer-in-Charge of Engineering-Construction.
- 20

Material of pipe, cement, sand, stone or gravel.

132. Reinforced concrete pipe shall be constructed at the site of the work, in a shed if the whether requires, and the pipe shall be made by a manufacturer of established reputation, who shall have had previous experience in the manufacture of reinforced concrete pipe. The cement, sand, stone or gravel shall conform to the specifications of the Division of Sewers, Bureau of Engineering Construction. The forms shall be of steel and the reinforcing steel shall be held at all times against displacement in tamping. Concrete shall be an accurate 1—2—4 mix. Each pipe be stamped as made with date of manufacture.
- 30

Joints.

133. The pipe shall be of the bell and spigot type, the bell not to project beyond the body of the pipe, but to be flush with it. No pipe having a butt joint will be considered. No variation over one-half (½) per cent from the hereinbefore mentioned dimensions will be permitted.
- 40

EXHIBIT C-204 (*continued*).

Jointing.

10 134. All joints to be made of 1 : 2 Portland cement mortar. The mortar shall be thoroughly trowelled in the recess in the interior of the pipe up to the spring line making a continuous invert. After this has been done, steel forms especially designed for the purpose shall be placed over and around the entire joint, and the mortar for sealing the arch portion grouted or poured through an opening in the crown of the pipe. Joints must be water-tight.

Laying pipe.

20 135. No pipe not marked with date of manufacture shall be laid or accepted. No pipe shall be laid in the trench which has not been seasoned for twenty-one (21) days, unless otherwise specially ordered by the Engineer-in-Charge of Engineering-Construction.

Steel for reinforcement.

136. Reinforcing steel may be either expanded metal deformed bars, or wire mesh, such as American Steel & Wire Company's, or Clinton Wire Cloth. For all sizes of reinforced concrete pipe, reinforcing shall be at distances not less than one (1) inch from the surface.

30 Spurs.

137. Reinforced concrete pipe shall have openings to receive spur and branch connection wherever required by the plans. The openings shall be made in a manner satisfactory to the Engineer-in-Charge of Engineering-Construction.

Disposal of water from trenches.

40 138. The provisions of paragraph No. 11 of the specifications shall be in full force and effect, even through reinforced concrete pipe shall be furnished on this contract.

Rejection of defective pipe.

139. Pipe damaged from handling or any cause whatsoever, whether in or out of the trench, shall be replaced and removed from site of the work at the expense of the contractors.

EXHIBIT C-204 (continued).

Dept of cover.

139a. Where depth of cover on precast pipe sewer is sixteen feet (16') or over extra reinforcing steel shall be used in the pipe to take care of the increased stresses. The cost of such extra steel shall be included in the price bid for precast pipe sewers.

10

Measurement.

139b. Precast concrete pipe, Type "B", will be paid for from the inside face of all chambers.

VITRIFIED PIPE SEWERS.

20 Vitrified pipe.

140. Vitrified pipe sewers shall be built of shale or clay hub and spigot pipes with deep and wide sockets. They shall be thoroughly and perfectly burned, without warps, cracks or other imperfections, and shall be fully and smoothly salt-glazed over the entire inner and outer surfaces, except that the inside of the hub and the outside of the spigot may be unglazed for two-thirds the depth of the hub. On all other portions of the pipe the glazing shall completely cover and form an integral part of the pipe body. If not left unglazed the inside of the hub and the outside of the spigot shall be scored in 3 parallel lines extending completely around the circumference. When it is broken, vitrified pipe shall show dense and solid material, without serious cracks or laminations: it shall be of such toughness that it can be worked with a chisel and hammer, and when struck with a hammer, it shall have a metallic ring.

30

Identification marks.

40 141. Each pipe shall have clearly impressed on its outer surface the name of the manufacturer and of the factory in which it was made.

Shape and dimensions.

142. The sizes of the pipes are designated by their interior diameters. Each pipe shall be a cylinder with a circular section.

EXHIBIT C-204 (continued).

and shall have a uniform thickness. The minimum lengths, thicknesses, depths of hubs and annular spaces for the respective sizes of pipe shall be as follows:

	Size	Length	Thickness	Depth of Socket	Annular Space
10	6.....	2 feet	5/8 inch	2 1/2 inches	5/8 inch
	8.....	3 "	3/4 "	2 3/4 "	5/8 "
	10.....	3 "	7/8 "	2 3/4 "	5/8 "
	12.....	3 "	1 "	3 "	5/8 "
	15.....	3 "	1 1/4 "	3 "	5/8 "
	18.....	3 "	1 1/2 "	3 1/4 "	5/8 "
	20.....	3 "	1 2/3 "	3 1/2 "	5/8 "
	22.....	3 "	1 5/6 "	3 3/4 "	5/8 "
	24.....	3 "	2 inches	4 "	5/8 "

20 Curves, bends, etc.

143. Where curved pipes are required they shall be furnished in either one-eighth or one-quarter bends of their respective sizes. Curved pipe, bends, siphons, and special pipe of the sizes and forms shown on the plan shall be furnished and laid, and unless otherwise provided they will be paid for at the contract prices for the corresponding sizes of vitrified pipe sewers.

30 Samples for testing.

144. Any or all of the following tests may be applied to samples selected from the pipe delivered on the work. For the purposes of making such tests as may be required the Contractor shall furnish and deliver when and where directed one length of pipe for each 200 feet of pipe sewer to be laid.

Crushing tests.

40 145. When supported at the bottom upon a knife edge one inch in width in such manner that an even bearing is provided throughout the whole length, exclusive of the bell, and pressure is applied at the crown uniformly through a similar knife edge, the various sizes of pipe shall withstand the following pressures:

EXHIBIT C-204 (continued).

		Diameter	Pressure			
	6 inches	.....	900	lbs.	per	lin. ft.
	8 "	.....	900	"	"	" "
	10 "	.....	1,000	"	"	" "
	12 "	.....	1,050	"	"	" "
	15 "	.....	1,250	"	"	" "
10	18 "	.....	1,400	"	"	" "
	20 "	.....	1,550	"	"	" "
	22 "	.....	1,750	"	"	" "
	24 "	.....	1,950	"	"	" "

Drop weight test.

146. When supported on a dry sand bed 2 inches deep, all pipe shall withstand without cracking the impact from 2 blows of a cast iron ball weighing 8 pounds falling 18 inches. Spurs shall resist without fracture the impact from 2 blows of such a ball falling 6 inches and striking on the extreme end of the hub of the spur.

Hydrostatic test.

147. When subjected to an internal hydrostatic pressure of 8 pounds per square inch, vitrified pipe shall show no percolation.

30 Absorption test.

148. After having been thoroughly dried and then immersed in water for 24 hours, sample pieces of pipe with all broken edges shall not absorb more than 4 per cent. of their weight of water.

Factory rejection.

40 149. The entire product of any pipe factory may be rejected when, in the judgment of the Engineer, the methods of manufacture fail to guarantee uniform results, or where the materials used are such as produce inferior pipe, as indicated by repeated failure to comply with the tests herein specified.

Without cradle.

151. When the sewer is to be laid without a cradle the trench shall be excavated as specified in paragraph 17 and the

EXHIBIT C-204 (continued).

earth forming the bed carefully freed of stones. The pipe shall then be evenly bedded therein and the backfilling placed and firmly tamped in such a manner as to avoid disturbing the sewer.

How laid.

10 154. All pipes shall be laid with ends abutting and true to line and grade. The pipes shall be fitted together and matched so that when laid in the work they will form a sewer with a smooth and uniform invert. Unless otherwise permitted or directed, not less than 12 feet of pipe sewer shall be laid in one operation.

Gasket and mortar joints.

20 155. Unless otherwise shown on the plan, the joints of vitrified pipe sewers shall be made as hereinafter specified in paragraph 156.

30 156. Gasket and mortar joints shall be made in the following manner: A closely twisted hemp or oakum gasket of suitable diameter, in no case less than $\frac{3}{4}$ -inch, and in one piece of sufficient length to pass around the pipe and lap at the top, shall be solidly rammed into the annular space between the pipes with a suitable calking tool. Before being placed, the gasket shall, if desired, be saturated with neat cement grout. The remainder of the space shall then be completely filled with plastic mortar mixed 1 to $1\frac{1}{2}$, and the joint wiped inside and finished to a smooth bevel outside.

Inspection of joints.

40 157. Unless otherwise permitted, at least 4 finished joints shall be left exposed for inspection throughout the working day, and the necessary staging for the protection of the exposed sewers and for the handling of excavated material shall be provided. A suitable ladder affording easy access for such inspection shall be furnished at every trench open for the proposed sewer.

Subgrade to be tested.

158. No pipe shall be laid or placed until the subgrade of the trench shall have been tested and found correct.

EXHIBIT C-204 (*continued*).

Sewer to be kept clean.

159. The interior of the sewer shall, as the work progresses, be cleared of all dirt, cement and superfluous materials of every description.

Backfilling.

10

160. Immediately after the sewer is laid the trench shall be backfilled as provided in paragraphs 29 to 37 inclusive and 157. No walking on or working upon the completed sewer (except as may be necessary in tamping the backfilling) will be permitted until the trench has been backfilled to a height of at least 2 feet over the top of the sewer.

Temporary covers.

20

161. The exposed ends of pipe sewers shall be provided with approved temporary covers fitted to the pipe so as to exclude earth and other materials.

Branch pipes.

30

162. Branch pipes and connection pipes shall be of the same quality and dimensions, and laid in the same manner as specified for vitrified pipe sewers. Dead ends of pipes shall be closed with bulkheads of brick masonry 8 inches in thickness.

Connection with existing work.

40

163. Wherever the proposed sewer is to connect with an existing manhole in which there is a branch pipe which is damaged or of unsuitable size or in improper position, such pipe shall be removed and be replaced with a pipe of suitable size or be reset in the proper position. The pipe so substituted or reset will be paid for at the contract price, for the corresponding size of pipe sewer.

Pipes cut to fit masonry.

164. The ends of pipes which enter masonry shall be neatly cut to fit the face of the masonry. When directed, such cutting shall be done before the pipes are built in.

EXHIBIT C-204 (*continued*).

Measurement.

10 165. The length of pipe sewers to be paid for will be determined by horizontal measurements along their center lines, and no deductions will be made on account of openings at manholes, and the measurements will be made to the inside face of all chambers.

Prices to cover.

 166. The contract prices for vitrified pipe sewers shall cover the cost of all necessary excavation (except rock); of all necessary trimmings, fittings and building into masonry; of all bulkheads; of all backfilling; of all samples furnished; and of all labor and materials required to furnish and lay the sewers complete in place, as shown on the plan and as specified.

20

BASIN CONNECTIONS.

 177. The connections between inlets and basin manholes and between basin manholes and sewers or sewer manholes shall be of vitrified pipe of the size shown on the standard details on file in the Engineer's Office, Bureau of Engineering-Construction, Division of Sewers. The pipes shall be of the same quality and dimensions, and laid in the same manner as hereinbefore specified for vitrified pipe sewers.

30

Measurement.

 178. The lengths of basin connections to be paid for will be determined by measurements along their axes.

Prices to cover.

40 179. The contract price for basin connections shall cover the cost of all necessary excavation (except rock); of all necessary trimming, fitting and building into concrete, or masonry; of all backfilling; and of all labor and materials required to furnish and lay the basin connections complete in place as specified.

EXHIBIT C-204 (continued).

SPURS FOR HOUSE CONNECTIONS.

180. Spurs for house connections shall be of vitrified pipe 6 inches in diameter, equal in quality and dimensions to that specified for vitrified pipe sewers.

10

In concrete sewers.

181. In concrete sewers spurs shall be built in as shown on the plan or as directed. They shall be hub and spigot pipes with the spigot end molded or cut to fit flush with the inner surface of the sewer, and of sufficient length to reach the exterior of the sewer.

20

In pipe sewers.

182. Pipes having 6-inch spurs with hubs molded thereon shall be furnished and laid in pipe sewers where shown on the plan or directed. Such pipes will be paid for at the contract prices for vitrified pipe sewers, and the spurs will be paid for in addition at the contract price for spurs.

Covers.

30

183. The ends of all spurs not connected with drains shall be closed with approved covers. If required such covers shall be cemented in place, and when directed the covers shall be so cemented before the pipes are lowered into the trench.

Price to cover.

40

184. The contract price for spurs shall cover the cost of all labor and materials required to furnish and place the same as specified, and the cost of furnishing and cementing the covers for the same.

DRAINS FOR HOUSE CONNECTIONS.

185. Where shown on the plan or where directed, drains for house connections shall be built from the spurs in such a manner and for such distance as may be shown or directed.

EXHIBIT C-204 (*continued*).

Depth at curb.

186. House connections drains shall be laid with a minimum gradient of $\frac{1}{4}$ inch to a foot, and wherever possible the depth from curb grade to the inner bottom of the drain at curb line shall be at least 8 feet.

10 Material.

187. Unless otherwise shown on the plan, drains for house connections shall be of vitrified pipe of the quality and dimensions specified for vitrified pipe sewers. The ends of the drains shall be closed with approved covers.

How laid.

20 188. All the requirements, as hereinbefore specified, relating to excavation, laying and backfilling of vitrified pipe sewers shall apply, as far as they are applicable, to drains for house connections.

Measurement.

189. The lengths of pipe drains for house connections to be paid for will be determined by measurement along their axes.

30 Price to cover.

190. The contract price for drains for house connections shall cover the cost of all necessary excavation (except rock); the cost of all backfilling; the cost of all covers, bends and specials required; and the cost of all labor and materials required to furnish and lay the drains for house connections complete in place, as specified.

40

MANHOLES.

194. The masonry or concrete for manholes shall be built to within such distances of the existing surface of the ground as directed.

EXHIBIT C-204 (continued).

Brick manholes.

195. Brick manholes shall be formed by means of templets placed at top and bottom with not less than 8 lines drawn between them, and they shall be smoothly and evenly plastered on the outside with a layer of mortar $\frac{1}{2}$ inch thick.

10 Concrete manholes.

196. Concrete manholes shall be built of the materials, and to the sizes and dimensions shown on the plan.

Steps.

20 197. Galvanized wrought iron steps of the size and shape shown on the plan shall be firmly built into the manholes at vertical intervals of about 16 inches.

Head and cover.

30 198. The manhole head and cover shall be of cast iron, and unless otherwise shown on the plan, each head, exclusive of cover, shall weigh not less than 500 pounds and each cover shall weigh not less than 160 pounds. The weight of each head and cover shall be conspicuously painted thereon by the manufacturer with white oil paint. The head shall be set on the masonry or concrete in a full bed of stiff mortar.

Price to cover.

199. The contract price for manholes shall cover the cost of all necessary excavation (except rock); of all backfilling; of all plastering; of all bluestones; of all concrete slabs; of all steps; and of all labor and materials required to construct the same complete, in place, as shown on the plan and specified.

40

BASIN MANHOLES

Brick basin manholes.

200. Brick basin manholes shall be formed by means of templets placed at top and bottom with not less than 10 vertical lines drawn between them.

EXHIBIT C-204 (*continued*).

201. Where the walls of brick basin manholes are not built of two rings of brickwork with a mortar layer between; the inside of the brickwork shall be smoothly and even plastered with a layer of 1 — 2 Portland cement mortar $\frac{1}{2}$ inch thick.

10 202. Where the wall of the basin manhole consists of two rings of brickwork, with a mortar layer between, the outer ring shall be carried up not less than 1 foot in advance of the inner ring, and the inner surface of the former shall be plastered with two coats of mortar. The second coat of mortar shall be applied before the first is set, and the total thickness of the mortar layer shall be 1 inch.

Concrete basin manholes.

20 203. Concrete basin manholes shall, if required, be built in such a manner that the bottom and sidewalks shall be formed in one continuous operation. Concrete basins shall be coated with a grout of neat cement on the inside.

Concrete cover slabs.

204. Concrete cover slabs of basin manholes shall be built of Class "A" concrete, reinforced as shown on plan.

Head cover and trap.

30 205. The basin manhole head and cover shall be of cast iron, as shown on plan, and known as a Standard Sidewalk Manhole Head and Cover. Each head exclusive of cover shall weigh not less than 260 pounds and each cover shall weigh not less than 100 pounds. An iron hood or trap, of the size and dimensions shown on the plan, must be furnished by the Contractor for each basin manhole and is to be built into the basin manhole, as shown on plan.

40 Restoration of sidewalks, curbs, etc.

206. All sidewalk pavements and curbs, disturbed by the construction of basin manholes, shall be restored by the Contractor in accordance with the specifications for similar work of the Bureau of Highways.

EXHIBIT C-204 (continued).

Price to cover.

10 207. The contract price for basin manholes shall cover the cost of all necessary excavation (except rock); of all backfilling; of all sidewalk and curb restorations and of all labor and materials required to construct the basin manholes complete in place, as shown on the plan and specified.

INLETS.

208. Inlets and the heads therefor shall be of the materials, forms and dimensions shown on the plan. The specifications for brickwork and concrete shall be those hereinbefore specified for basin manholes.

20 Heads.

209. The head shall be of cast iron and shall conform in all respects to the specifications for iron castings. If required, the inlets shall be closed with bulkheads of brick masonry and such bulkheads shall be removed when directed.

Restoration of roadway pavements, etc.

30 210. All roadway pavements, sidewalk pavements and curbs, disturbed by the construction of inlets, shall be restored by the Contractor in accordance with the specifications of the Bureau of Highways for similar work or specifications hereafter attached. In unpaved streets and macadamized streets where the inlets are approximately at the surface of the street a space of two and one-half ($2\frac{1}{2}$) feet adjoining such inlets shall, if required, be paved with approved paving blocks.

Price to cover.

40 211. The contract price for inlets shall cover the cost of all necessary excavation (except rock); of all backfilling; of the temporary brick bulkheads in the mouths of the inlets, when required; of all roadway, sidewalk and curb restorations; of all labor and materials required to construct the inlets, complete in place, as shown on the plan and specified.

EXHIBIT C-204 (continued).

RESTORATION OF SURFACE AND CLEANING UP.

Restoration of unpaved roadways, sidewalks, etc.

- 10 219. At such time as may be directed, all unpaved roadways, gutters and sidewalks affected by the work done under this contract shall be restored by the Contractor to the same condition in which they were at the time of the opening of bids for this contract.

Pavements, etc., restored by Contractor.

- 20 220. If required by the plan, roadway and sidewalk pavements, crosswalks, curbs, etc., shall be satisfactorily restored and adjusted by the Contractor at such times as may be directed. Sidewalk pavements shall be restored in whole flags, squares or sections which shall correspond in quality and appearance with the original or adjoining flags, squares or sections. All work and materials used in such restoration and adjustment shall conform in all respects to the standard specifications now in use by the President for similar work and materials.

Pavements, etc., under guarantee.

- 30 221. All pavements, sidewalks, crosswalks, curbs, etc., existing at the time of the opening of the bids for this contract, and under guarantee for maintenance, shall be restored and adjusted by the parties responsible under such guarantee, and at the expense of the Contractor. If not so restored and adjusted during the progress of the work, the Contractor shall, when directed, pay to the President before the completion of the contract a sum of money sufficient to cover the cost of having the same restored and adjusted by the parties responsible under such guarantee, and at the charges for the restoration of the same, as set forth in their contracts relating thereto. Such sum shall be accompanied by certificates from the parties responsible for the maintenance of the pavements, sidewalks, crosswalks, curbs, etc., to the effect that such sum will be accepted by them as full payment for such restoration and adjustment.
- 40

EXHIBIT C-204 (*continued*).

Temporary restoration.

222. At such times as may be directed roadway and sidewalk pavements, crosswalks, curbs, etc., which have been removed, whether under guarantee or not, shall be temporarily restored by the Contractor to the satisfaction of the Engineer.

10 When new pavement is laid.

223. If pavement, sidewalks, crosswalks, curbs, etc., are laid where none existed at the time the bids for this contract were opened, the Contractor shall excavate and remove such portions of the pavements, sidewalks, crosswalks, curbs, etc., and their foundations as may be necessary for the prosecution of the work, but he will not be required to make a permanent restoration of them.

20 Trenches flooded.

224. Before laying any pavements, sidewalks, crosswalks, curbs, etc., the trenches shall, if required, be flooded with water, as directed, and all resulting holes or depressions shall be filled and tamped solid.

Cleaning up.

30 225. At such times as may be directed the Contractor shall remove from the streets, all materials which were placed thereon by him as a consequence of performing this work and which are not required by the contract to be left as part of the finished work. The entire work and portions of the streets affected thereby shall be left in a satisfactory condition. The sidewalks and crosswalks shall be swept clean of all material which may have come thereon by reason of the work under this contract, and if required, they shall be sprinkled with water during the sweeping.

40 Cost to be covered.

226. The cost of all the labor required to be done and all the materials required to be furnished in the performance of all the work specified in paragraphs 219 to 225 inclusive, shall be covered by all the contract prices for all the items for which there are contract prices.

EXHIBIT C-204 (continued).

The Asphaltic Pavement on Granite Foundation on Broadway disturbed by this contract is to be relaid by the Contractor in accordance with the specifications of the Bureau of Highways and to the satisfaction of the Engineer in charge of that Bureau. See note on plan.

10 The Asphalt Pavement on concrete on Broadway is under maintenance by the Trinidad Paving Co. wherein the contract prices for restoration are as follows:

20 For openings less than ten (10) square yards in area, three dollars and fifty cents (\$3.50) per square yard, and for openings measuring ten (10) square yards or more in area, three dollars (\$3.00) per square yard. These prices include the construction of an eight inch (8") concrete foundation. The character of pavement (kind, thickness of base, etc.), and manner of restoration shall be determined by and subject to approval by the Highway Department, Borough of Queens.

The Asphalt Pavement at the intersection of Elmhurst & Roosevelt Aves. is under maintenance by the Cleveland Trinidad Paving Co., wherein the contract prices for restoration are as follows:

30 For openings less than ten (10) square yards in area, three dollars and fifty cents (\$3.50) per square yard, and for openings measuring ten (10) square yards or more in area, three dollars (\$3.00) per square yard. These prices include the construction of an eight inch (8") concrete foundation. The character of pavement (kind, thickness of base, etc.), and manner of restoration shall be determined by and subject to approval by the Highway Department, Borough of Queens.

The Asphalt Pavement in Elmhurst Ave., is under maintenance by the W. P. McDonald Const. Co., wherein the contract prices for restoration are as follows:

40 For openings less than ten (10) square yards in area, three dollars and fifty cents (\$3.50) per square yard, and for openings measuring ten (10) square yards or more in area, three dollars (\$3.00) per square yard. These prices include the construction of an eight inch (8") concrete foundation. The character of pavement (kind, thickness of base, etc.), and manner of restoration shall be determined by and subject to approval by the Highway Department, Borough of Queens.

EXHIBIT C-204 (*continued*).

The concrete Roadway in Roosevelt Ave., is under maintenance by the H. V. Mullen Co., wherein the contract prices for restoration are as follows:

10 For openings less than ten (10) square yards in area, three dollars and fifty cents (\$3.50) per square yard, and for openings measuring ten (10) square yards or more in area, three dollars (\$3.00) per square yard. These prices include the construction of an eight inch (8") concrete foundation. The character of pavement (kind, thickness of base, etc.), and manner of restoration shall be determined by and subject to approval by the Highway Department, Borough of Queens.

The concrete wings on Roosevelt Ave., is under maintenance by the Kennedy & Smith Co., wherein the contract prices for restoration are as follows:

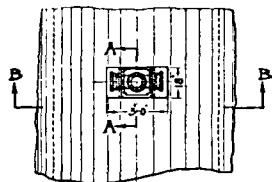
20 For openings less than ten (10) square yards in area, three dollars and fifty cents (\$3.50) per square yard, and for openings measuring ten (10) square yards or more in area, three dollars (\$3.00) per square yard. These prices include the construction of an eight inch (8") concrete foundation. The character of pavement (kind, thickness of base, etc.), and manner of restoration shall be determined by and subject to approval by the Highway Department, Borough of Queens.

30

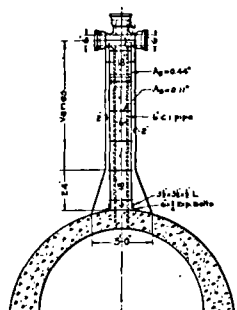
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EXHIBIT C-3

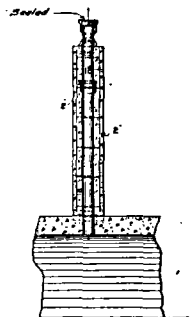
(Sheet No. 1 of Plan of 150th st., December 8th, 1924.)



Plan of Riser



Section B-B



Section A-A

CITY OF NEW YORK BOROUGH OF QUEENS
 OFFICE OF THE PRESIDENT OF THE BOROUGH
 BUREAU OF ENGINEERING CONSTRUCTION
 DIVISION OF SEWERS

PLAN PROFILE & DETAILS
 FOR THE CONSTRUCTION OF A SANITARY SEWER AND APPURTENANCES IN
150TH AVENUE
 FROM PUMPING STATION AT 134TH STREET TO JUDITH STREET AND
JUDITH STREET
 FROM 150TH AVENUE TO FARMERS BOULEVARD
 FOURTH WARD BOROUGH OF QUEENS

Dated, Dec. 8th, 1924

Tudor S. ...
Asst Engineer Division of Sewers

Eng in Charge of Engineering Construction

J. ...
Engineer of Sewers

Commissioner of Public Works

Wm. ...
President of the Borough

NOTES

It is intended to lay six inch house connection drains from the sewer to the curb line in front of improved property only. House connection drains shall be laid at right angles to the line of the sewer by inserting an eight band.

All vitrified pipe sewers and drains shall be laid with greatest and proper joints in accordance with paragraph 156 of the specifications.

The location of sub-surface structures is approximate only and bidders are referred to sections XXXI to XXXVIII, inclusive of the contract.

The contractor shall restore the roadways, pavements, etc. affected by the work on this contract in accordance with paragraphs 218 and 222 of the specifications, and specifications attached to page 63 thereof.

Any modification of these plans must be submitted to the Engineer-in-Charge, Engineering-construction, for his examination and approval.

Where the present surface is above the established grade the standard collar manhole shall be built.

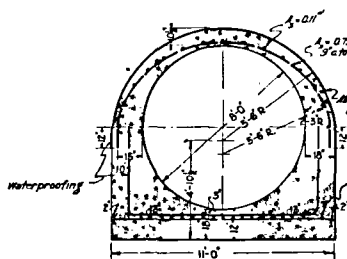
Where precast concrete or vitrified pipe is used, pavement will be made to the inside face of all chambers. All concrete to be 1:1:2 mix.

No waterproofing to be placed until concrete in invert and side walls has been set seven days and thoroughly dry. Waterproofing to be placed in separate layers.

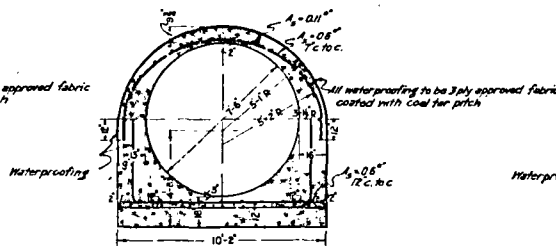
Fabric and cold tar-pitch to be approved before placing. Arch forms to be kept in place 21 days.

Sheeting not to be used for outside forms.

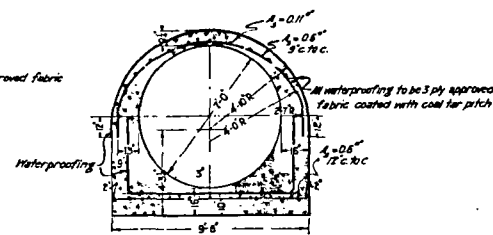
Invert to be constructed in forty (40) ft. length.



Type A 6-0 Monolithic Sewer Section



Type A 7-6 Monolithic Sewer Section



Type A 7-0 Monolithic Sewer Section

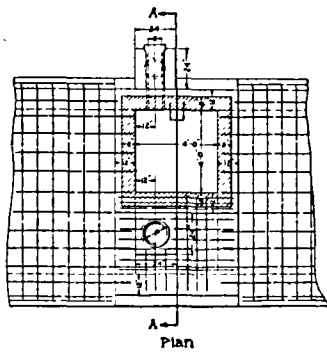
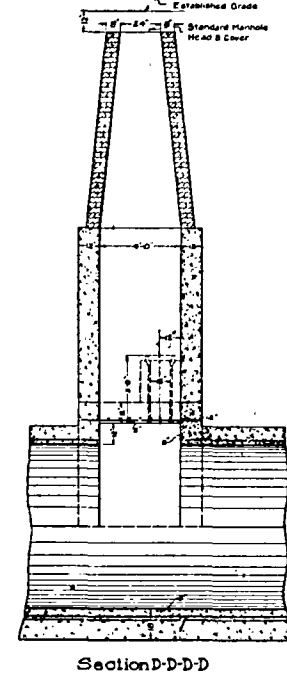
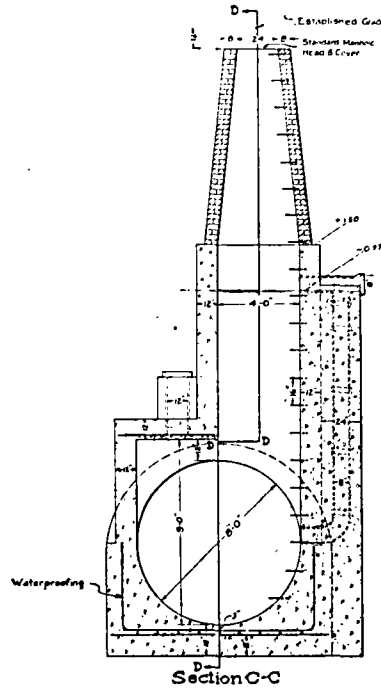
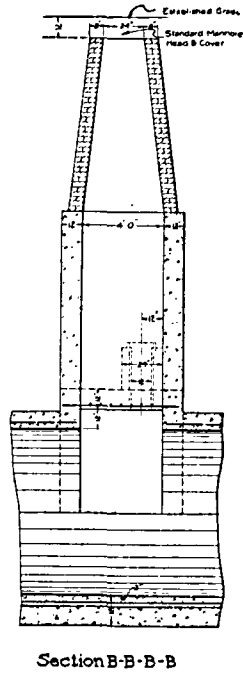
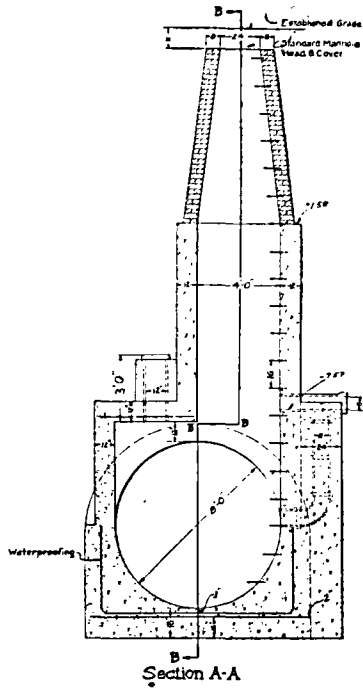
79-2019

Designed by G.M.
Drawn by J.W.
Checked by J.W.

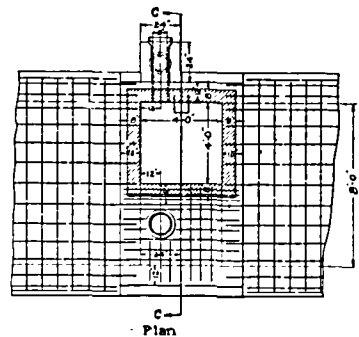
11 SHEETS
SHEET No 1

EXHIBIT C-4

(Sheet No. 5 of Plan of 150th St., December 8th, 1924.)



TYPICAL MANHOLE ON 8'-0" SEWER This one in 150th Ave. at 148th St.



TYPICAL MANHOLE ON 8'-0" SEWER This one in 150th Ave. at 148th St.

All Waterproofing to be 3 Ply Approved Fabric Coated With Coal Tar Pitch

Scale 1/2"=1'

CITY OF NEW YORK - BOROUGH OF QUEENS
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 PLAN PROFILE & DETAILS
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 FROM PUMPING STATION AT 148th STREET - JUDITH STREET