

Appendix No. 3.

STATEMENTS SHOWING QUANTITIES OF WORK PERFORMED
AND COST OF NEW CONDUIT, AS PER FINAL ESTIMATES
TO CONTRACTORS, AND OTHER CHARGES AGAINST THE
ADDITIONAL WATER SUPPLY ACCOUNT.I. SUMMARY OF WORK PERFORMED BY VARIOUS PARTIES IN CONNECTION WITH THE
CONSTRUCTION OF THE NEW INTAKE WORKS AT HEMLOCK LAKE.

ITEMS.	AMOUNT.	TOTAL.
CARROLL-PORTER BOILER & TANK Co., Pittsburgh, Pa. 1,486.25 lin. ft. 60-inch steel intake pipe, made from 5-16 and 3-8 inch plates.....		\$ 15,683 90
CENTRAL BRIDGE & ENGINEERING Co., Peterborough, Ont. 15 ball and socket joints for said intake pipe, each joint being 4.25 ft. long.....	\$ 4,372 45	
Import duties on same.....	1,031 26	5,403 71
CHAMBERS & CASEY, Rochester, N. Y. Dredging a channel in lake bottom, 740 ft. long. for the intake pipe. 10,000 cu. yds. dredging, at 50c per cu. yd.....	5,000 00	
4,496 " " " 45c " " ".....	2,023 20	
360 hours extra work with dredge, re-filling over pipe and pulling piles, at \$3.00 per hour.....	1,080 00	8,103 20
Pile platforms, tramway, trestles, etc.; 10,814.8 lin. ft. piles, furnished and delivered, (mostly from 40 to 60 ft. long), at 14.6c per lin. ft.....		1,578 96
78,591 ft. B. M. hemlock lumber, at \$10.416 per M.....	818 59	
19,114 " white pine " " 23.875 " M.....	456 35	
35,241 " oak " " 15.487 " M.....	545 77	1,820 71
8,956 lbs. wrought and cast-iron work.....		236 15
4 special winches with triple blocks and capacity of 18 tons each, made by L. S. Graves & Son, for lowering 100-foot sections of the intake pipe.....		1,696 81
Miscellaneous material and all labor employed in laying 1,512 lin. ft. of intake pipe and appurtenances, including coffe- dam and excavation for second length of pipe, backfilling, superintendence, etc.....		14,845 16
Total cost of permanent intake works.....		\$ 49,368 60
Temporary intake works, with 16-inch cast-iron pipe.....	1,016 15	
Temporary buildings at gate house, overflow, etc.....	249 26	1,265 41
Measuring weir and pipes for future water-level registering devices in gate house.....		1,191 24
Total.....		\$ 51,825 25

II.—SUMMARY of work performed by W. H. Jones & Sons, in the construction of a Masonry Water Conduit, Tunnel, Gate House, Overflow Chamber, and the appurtenances thereto, commencing at the north-eastern corner of Hemlock Lake and terminating at a point on the Outlet of said Lake about 12,000 feet northerly, under their contract with the Executive Board, dated February 6, 1893, and known as "Contract No. 1, Additional Water Supply."

QUANTITY.	ITEMS.	PRICE.	AMOUNT.
For the entire work	Pumping, baling and draining		\$ 2,000 00
1.7 acres	Clearing and grubbing	\$ 25 00	42 50
2,581.0 cu. yds.	Earth excavation in roadway grading	0 50	1,290 50
718.4 cu. yds.	Rock excavation in roadway grading	1 50	1,077 80
25,924.4 cu. yds.	Earth excavation in open trenches and pits	0 70	18,147 08
1,712.7 cu. yds.	Rock excavation in open trenches and pits	2 00	3,425 40
413.9 cu. yds.	Earth excavation in shafts for tunnel	1 25	517 38
1,796.0 cu. yds.	Rock excavation in shafts for tunnel	4 00	7,184 00
453.2 cu. yds.	Earth excavation in tunnel	5 00	2,266 00
13,848.9 cu. yds.	Rock excavation in tunnel	7 00	96,942 30
80,737.0 cu. yds.	Hauling excavated material more than 1,000 feet, reduced to a basis of 100 feet over-haul	02	1,614 74
1,169.9 cu. yds.	Concrete masonry with natural cement, in structures built in open excavation	4 50	5,264 55
1,959.5 cu. yds.	Concrete masonry with natural cement, in the tunnel and shafts	5 50	10,777 25
83.7 cu. yds.	Concrete masonry, extra rich in Portland cement	8 50	711 45
1,085.3 cu. yds.	Brick masonry, laid with Portland cement mortar, in foundations of gate house and overflow chamber	12 00	13,023 60
2,155.8 cu. yds.	Brick masonry, laid with Portland cement mortar, in the conduit, culverts and other structures built in open excavation	12 00	25,869 60
3,494.0 cu. yds.	Brick masonry, laid with Portland cement mortar, in the tunnel and shafts	14 00	48,916 00
233.9 cu. yds.	Rubble masonry, laid with natural cement mortar, in open excavation	6 50	1,520 35
18.8 cu. yds.	Cut stone masonry and copings laid in Portland cement mortar	28 00	526 40
25.0 cu. yds.	Rip-rap in channels of water-courses	2 50	62 50
4.0 lin. ft.	20 in. vitrified earthenware pipe	1 75	7 00
72.0 lin. ft.	12 in. vitrified earthenware pipe	60	43 20
154.5 lin. ft.	6 in. wrought-iron well-tubing for tunnel ventilation holes	1 65	254 92
309.0 lin. ft.	Drilling 6 in. tunnel ventilation holes in rock	0 60	185 40
1,511.1 lin. ft.	Timber piles in gate house foundation, furnished and driven	90	1,359 99
18,970.0 ft. B. M.	Timber and planks in foundation of gate house	24 00	438 48
16,299.0 lbs.	Wrought-iron work furnished and set in place	06	977 94
91,523.0 lbs.	Cast-iron work furnished and set in place	05	4,576 15
200.0 lbs.	Bronze work in gate house and shafts	65	130 00
45,983.0 ft. B. M.	Sheeting and timbers left in place in the conduit trench in open excavation and in foundation of gate house, as per contract	14 00	643 76
1,583.0 cu. yds.	Rough rubble masonry backing of brick side-walls and arch, built in open excavation	5 50	8,706 50
7,236 lin. ft.	Concrete flooring of conduit in rock tunnel		7,236 00
168.5 cu. yds.	Additional volume of dry filling over crown of arch in rock tunnel, on account of extra excavation ordered by engineer		337 00

CONTRACT NO. 1—Continued.

QUANTITY.	ITEMS.	PRICE.	AMOUNT.
	For rent of land for air compressor, construction of plank road, extra work setting first section of intake pipe, cutting foot holes and weepers in masonry, backfilling temporary ventilation shaft, and additional cleaning of conduit.....		\$ 956 30
	Total.....		\$267,031 84
	Extra work in preparing foundations of gate house and setting the gates in same; also for puddle wall to cut off spring near the overflow chamber, timber platform for storing intake pipe, borings in lake bottom, etc.		1,592 46
	Total paid to Wm. H. Jones & Sons for new conduit, under Contract No. 1. Additional Water Supply		\$268,624 30

III.—SUMMARY of work performed by Whitmore, Rauber & Vicinus in the construction of a 38-inch Riveted Steel Pipe Conduit and all required appurtenances thereto, commencing near Hemlock Lake and terminating at Mt. Hope Reservoir, under their contract with the Executive Board, dated February 6, 1893, and known as "Contract No. 2, Additional Water Supply."

QUANTITY.	ITEMS.	PRICE.	AMOUNT.
12.48 acres	Clearing and grubbing	\$ 70 00	\$ 873 60
50,825 cubic yards ...	Earth excavation in roadway grading.....	35	20,938 75
2,251.27 cubic yards ...	Rock excavation in roadway grading.....	1 25	2,814 09
206,067 cubic yards..	Earth excavation in open trenches for the pipe conduit and other structures.....	75	154,550 25
1,247.18 cubic yards.	Rock excavation in open trenches for the pipe conduit and other structures.....	2 25	2,806 16
2,143.78 cubic yards.	Concrete masonry with natural cement, in structures built in open excavation. . .	7 00	15,006 46
30.91 cubic yards ...	Concrete masonry with Portland cement, in structures built in open excavation... .	8 00	247 28
712.72 cubic yards... .	Brick masonry laid with Portland cement mortar in structures built in open excavation.....	14 50	10,334 44
34.03 cubic yards....	Cut stone masonry and copings.....	35 00	1,191 05
122.68 cubic yards... .	Second class stone masonry laid with natural cement mortar..	15 00	1,840 20
637 cubic yards....	Third class stone masonry laid with natural cement mortar.....	12 00	7,644 00
684.25 cubic yards... .	Fourth class or common rubble masonry laid with natural cement mortar. . .	10 00	6,842 50
52.43 cubic yards....	Screened gravel in foundations.....	3 50	183 51
2.85 cubic yards ...	Slope wall laid dry.....	6 00	17 10
163.54 cubic yards..	Stone paving	5 00	817 70
120.58 cubic yards..	Rip-rap put in place.....	5 00	602 90
1,324.18 lineal feet..	36-inch cast-iron water pipe, furnished and laid.....	6 90	9,136 84
99.49 lineal feet....	30-inch cast-iron water pipe, furnished and laid.....	5 20	517 35

CONTRACT NO. 2—Continued.

QUANTITY.	ITEMS.	PRICE.	AMOUNT.
350.57 lineal feet.	24-inch cast-iron water pipe, furnished and laid.	\$ 3 80	\$ 1,332 17
305.60 lineal feet	16-inch cast-iron water pipe, furnished and laid.	2 00	791 20
349.60 lineal feet	8-inch cast-iron water pipe, furnished and laid.	85	297 16
733.70 lineal feet....	6-inch cast-iron water pipe, furnished and laid.	70	513 50
3,242 lineal feet. . .	Vitrified earthenware tile, from 24 to 6 inches in diameter, furnished and laid for drainage purposes, amounting in the aggregate to.		1,381 75
3,514.26 lineal feet..	Altering agricultural and other drains, and laying new drains where necessary.		259 49
1,749.50 lineal feet..	Timber piles in foundations, furnished and driven.	60	1,049 70
4,799.70 lineal feet..	Timber piles in bridges and trestles, furnished and driven.	50	2,399 85
62,796 feet B. M. . .	Timber and plank, furnished and put in place in foundations. This also includes temporary air-valve boxes, and box drains left in place.	30 00	1,883 88
97,854 feet B. M....	Oak timber and plank in bridge floors, gate vault covers, blow-off boxes and box drains.	45 00	4,403 43
19,461 feet B. M.....	White pine timber in bridges.	45 00	875 75
70,304 feet B. M.....	Plank and timber sheeting left in the conduit trench and other excavations, as per contract.	14 00	984 26
35,658.40 pounds.....	Wrought-iron work in place.	05	1,782 92
39,070.80 pounds.....	Cast-iron fittings in place.	05	1,953 54
207,703 pounds.....	Cast-iron specials in the conduit line and appurtenances.	04	8,308 12
137.....	Man-holes set in the conduit line.	60 00	8,220 00
32.....	36-inch stop-valves set.	25 00	800 00
5.....	30-inch stop-valves set.	22 00	110 00
2.....	24-inch stop-valves set.	18 00	36 00
2.....	16-inch stop-valves set.	15 00	30 00
1.....	Pair of 8-inch blow-off valves set.	6 00	6 00
66.....	Pairs of 6-inch blow-off valves and 6-inch air valves set.	4 00	264 00
28.....	1-inch air valves set.	3 00	84 00
34.....	3-inch air valves set.	3 00	102 00
207.56 tons.....	Hauling stop-valves and other material furnished by the Executive Board.	3 00	622 68
10 creek crossings..	Coffer-damming, balling and draining at creek crossings.	4,500 00	45,000 00
53,360.73 lineal feet.	38-inch steel conduit pipe, 1/4-inch plate, with single riveted straight seams, furnished and laid.	5 47	291,883 19
24,729.18 lineal feet.	38-inch steel conduit pipe, 1/4-inch plate, with double riveted straight seams, furnished and laid.	5 56	137,494 24
34,814.95 lineal feet.	38-inch steel conduit pipe, 5-16 inch plate, with double riveted straight seams, furnished and laid.	6 96	242,312 05
24,042.68 lineal feet..	38-inch steel conduit pipe, 3/8-inch plate, with double riveted straight seams, furnished and laid.	8 55	205,564 91
13,468 pounds.....	Old steel rails in covering gate vault near Mt. Hope reservoir.	01 1/2	202 02
123 cubic yards....	Gravel to raise grade of highway near Elmwood ave.	1 25	153 75
172.30 lineal feet...	6-inch wrought-iron pipe, laid for air inlets to air-valves in highways.	10	17 23
6,888 pounds.....	Reserve castings and bolts.		470 10
			\$ 1,197,953 16

CONTRACT NO. 2—Continued.

ITEMS.	AMOUNT.	TOTAL.
Amount brought forward.....		\$ 1,197,953 16
For various other items summarized as follows:		
Material and labor for temporary air-valves on conduit during construction.....	\$ 328 10	
104 days pumping from Hemlock Lake outlet to maintain flow of water in completed portion of conduit during winter of 1893-4.....	728 00	
Alterations in steel pipe on account of changes in line and grade at various places.....	153 43	
Use of land on east side of Pinnacle ave. during construction..	140 00	
Farm gates and fencing around air-valves, etc.....	682 61	
Temporary building at Mt. Hope Reservoir, boxing temporary inlet pipes at reservoirs, relaying old 24-inch conduit at Rush Reservoir, etc.....	798 87	
Amount.....		2,831 01
Total paid to Whitmore, Rauber & Vicinus for New Conduit under Contract No. 2, Additional Water Supply.....		1,200,784 17
Deduct amount charged to Water Distributing System Fund for work done at Mt. Hope Reservoir.....		3,778 34
Balance chargeable to New Conduit.....		\$ 1,197,005 83

IV.—SUMMARY of work performed by various parties in furnishing Stop-Valves, Air-Valves, Cast-Iron Valve Boxes and other Castings; also the Buildings for New Gate House at Rush Reservoir and Overflow Tower at West Bloomfield.

ITEMS.	AMOUNT.	TOTAL.
RENSSELAER MFG. CO., Troy, N. Y. Stop-valves and air-valves for conduit.....		\$18,952 35
GENESEE FOUNDRY CO., Rochester, N. Y. Sliding gates and appurtenances in Hemlock Lake gate house Cast-iron valve boxes and other castings for conduit.....	\$ 986 13 2,116 31	3,102 44
LAKE SHORE FOUNDRY, Cleveland, O. Reserve castings for conduit.....		426 45
SNOW WIRE WORKS, Rochester, N. Y. Screens for Hemlock Lake gate house and temporary intake work.....		489 16
WHITMORE, RAUBER & VICINUS, Rochester, N. Y. Construction of overflow tower at West Bloomfield..... Gate house at Rush reservoir.....	1,844 39 3,250 00	5,094 39
L. ERNST & SON, and others, Rochester, N. Y. Locks, stub-wrenches, small valves and other miscellaneous materials and labor.....		1,804 09
Total.....		\$29,868 88

V.—SUMMARY of payments for damages to mill-privileges, rights of way and legal expenses.

To owners of mill-privileges on outlet of Hemlock Lake and Honeoye Creek, for unlimited use of the remainder of all water in both Hemlock and Canadice lakes, in excess of 9,000,000 gallons per day.....	\$ 67,250 00
To owners of land for permanent rights of way for new conduit.....	46,047 50
For temporary land damages, and expense of agents in securing rights of way.....	8,064 76
Making abstracts of title and searches and recording documents.....	2,783 84
Legal expenses, including condemnation proceedings.....	4,676 20
Total	\$ 128,822 30

VI.—SUMMARY of payments for engineering, inspection, printing, advertising, etc.

Engineering and inspection	\$ 88,567 67
Office rent, stationery and supplies	4,635 81
Printing, advertising and expenses connected with the sale of bonds.....	4,464 07
Borings, test pits, etc., on preliminary surveys.....	3,097 75
Total	\$ 100,765 30

VII.—GENERAL SUMMARY OF COSTS OF NEW CONDUIT.

I. Intake works at Hemlock Lake.....	\$ 51,825 25
II. Masonry conduit and appurtenances.....	268,624 30
III. Steel pipe conduit and appurtenances	1,197,005 83
IV. Stop-valves, buildings, etc	29,868 88
V. Damage to mill privileges and lands, rights of way, and legal expenses.....	128,822 30
VI. Engineering, inspection, printing, etc.....	100,765 30
Total	\$ 1,776,911 86

VIII.—SUMMARY OF RECEIPTS CONSTITUTING FUND FOR ADDITIONAL WATER SUPPLY.

Amount of bonds authorized and sold.....	\$ 1,750,000 00
Premiums received on said bonds	16,606 33
Accrued interest on bonds prior to sale and on unexpended funds deposited in banks during construction.....	18,222 56
Miscellaneous receipts from sale of scow, timber, etc.....	106 17
Total receipts.....	\$ 1,784,935 06
Total expenditures.....	1,776,911 86
Balance in fund, Jan. 1, 1896.....	\$ 8,023 20