

Council Chamber, Ann Arbor, Mich.,
Feb. 3, 1919. Regular session.

Meeting called to order by the president. Present: Ald. Sugden, Huss, Mayer, Henderson, Prochnow, Markey, Donnelly, Hauser, Spathelf, Freeman, MacGregor, Lutz, Pres. Reichert, 13. Absent: Ald. Heusel, Sink, 2. Minutes of previous meeting approved.

Notice of suit by Lorenzo D. Thomas received and referred to City Attorney.

Communication from Mr. F. G. Barnard, relative to action taken by municipalities in the matter of petition filed by the Michigan State Telephone Company with the Michigan Railroad Commission, received and referred to City Attorney.

Petition of Ernst M. Wurster, et al., for grading and paving on N. Fourth ave., between Ann and Kingsley sts., and on Detroit st. between Ann and Catherine sts, and on Catherine st. between Main st. and Fifth ave., received and referred to City Engineer.

Representatives of the Michigan Central Railroad requested Council to appoint a committee to meet with officials of the railroad relative to removal of stock yards, and the matter was referred to Railway committee.

Committee Reports.

Finance Report.

Contingent Fund.

I. G. Reynolds, salary and clerk hire	\$166.66
Ross Granger, salary and clerk hire	160.00
Herbert W. Crippen, salary	125.00
Geo. H. Sandenburgh, salary	166.66
Alfred J. Paul, salary	150.00
F. Leslie Feiner, salary	125.00
Julius Lohrke, salary	90.00
Frank B. Devine, salary	83.33
R. M. Caughey, salary	80.00
M. E. Easterly, salary	65.00
John A. Wessinger, salary	50.00
Douglas Bycraft, salary	70.00
Ura G. Richert, salary	50.00
John F. Blinn, salary	25.00
M. C. Ryan salary, half month	51.23
Total salaries for January	\$1,457.88

Fire Fund

Chas. Andrews, salary	\$ 66.66
Eugene Williams, salary	56.38
Ralph Edwards, salary	56.38
Henry McLaren, salary	53.48
Jacob Gwinner, salary	53.48
Harley Wise, salary	51.23
Martin Noll, salary	51.23
Frank Markey, salary	51.23
Herman Kruse, salary	51.23
Emil Dammin, salary	51.23
Mat. Heiminger, salary	51.23
Benj. Zahn, salary	51.23
Raymond Gillespie, salary	51.23
Floyd Naylor, salary	47.55
Earl Arnold, salary	47.55
Claud Cobb, salary	47.55
Fred Nordman, salary	47.55
Chas. Carroll, salary	33.69

Frank Kapp, salary 33.69

Fire fund total salaries, half month,
January \$953.80

Police Fund.

Thos. O'Brien, salary	\$ 66.66
Wm. Aprill, salary	51.23
Gustave Meyer, salary	51.23
Ed. Blumhardt, salary	51.23
Emanuel Sodt, salary	51.23
Marland Howard, salary	51.23
Robert Clark, salary	51.23
Henry Harden, salary	51.23
Fred Sodt, salary	51.25
Joseph Gast, salary	47.55
Frank Marz, salary	47.55
Chas. Splitt, salary	34.87

Police fund total salaries, half month,
January \$603.47

Poor Fund.

John H. Shafford, salary \$ 35.00

Cemetery Fund.

David Staebler, salary \$ 70.00

Park Fund.

Ray E. Bassett, salary \$125.00

Water Works Fund.

Geo. S. Vandawarker, salary	\$166.66
R. Stokes, salary	166.66
Dr. H. Emerson, salary	50.00
A. W. Cochran, salary	10.00
Geo Mann, salary	20.00
John Lindenschmitt, salary	20.00
Wirt Cornwell, salary	20.00

Total monthly salaries \$453.32

Harry Willsber, salary \$45.00

Leslie Bush, salary 45.00

Robert Rowe, salary 42.50

Harry Warren, salary 37.50

Henry Linde, salary 45.00

John Volland, salary 37.50

John Schwikart, salary 37.50

A. E. Hawkes, salary 42.50

Cliff Shetterly, salary 50.00

Louise Malloy, salary 42.50

Russell Pryce, salary 32.50

Total semi-monthly salaries \$457.50

Water Works fund, total salaries... \$910.82

Contingent Fund.

Engineer Department—

G. W. Francis, services \$ 11.20

W. B. Russell, services 36.00

Martin Walsh, services 21.35

E. R. Weber, services 5.60

H. M. Woodward, services 33.25

Total Engineer Dept. \$107.40

Henry H. Wagoner, collecting garbage \$500.00

Emily Zeeb, services 12.00

W. H. Butler, insurance 225.91

R. L. Polk & Co., directories 55.00

The Richmond & Backus Co., supplies 22.12

The Mayer-Schairer Co., supplies .. 48.80

Geo. Wahr, supplies 4.80

The Athens Press, printing..... 18.65

The Times News Co., printing..... 230.65

Burroughs Adding Machine Co., attention to machine 5.20

The Ann Arbor Garage, auto repairs .. 75

C. E. Godfrey, cartage 5.00

John A. Wessinger, expenses paid.. 6.75

Hutzel & Co., engine house repairs.	502.97
Total supplies, etc.	\$1,638.60
Contingent fund total, including salaries	\$3,203.88

Fire Fund

The Detroit Edison Co., light	\$ 5.40
Henry Nevroth, substitute	12.68
Washtenaw Gas Co., light 2 mo.	18.63
R. G. McKenzie, services	24.00
St. Joseph's Sanitarium, board and care	43.50
White Swan Laundry Co., laundry	15.78
Ottmar H. Lutz, repairs	1.50
American-LaFrance Fire Engine Co., supplies	34.71
Jno. C. Fischer Co., supplies	25.87
The Newton & Haggerty Ladder Co., supplies	2.25
Schumacher Hardware Co., supplies	15.05
John A. Tice, supplies	.50

Total supplies, etc.	\$199.87
Fire fund total, including salaries,	\$1,153.67

Police Fund

Mich. State Tel. Co., tolls	\$ 7.50
Mrs. Joseph Gagel, services	5.00
Standard Oil Co., coupon book	10.00
City Garage, supplies	3.00
E. G. Hoag, supplies	2.40
Schumacher Hardware Co., supplies	10.20
Independent Taxi & Transfer Line, taxi service	3.85
Henry S. Platt, auto repairs	4.70
A. C. Marquardt Garage, auto repairs	21.03
Stanger Furniture Co., auto repairs	6.40
Thos. O'Brien, supplies paid	.50

Total supplies, etc.	\$ 74.58
Police fund total, including salaries,	\$681.05

Poor Fund

Mrs. Mabel R. Lloyd, treas. Old Ladies' Home	\$ 12.00
D. C. Prochnow, supplies	16.04
Dan Haas, supplies	16.36
Herrick & Bohnet, supplies	7.84

Total supplies	\$ 52.24
Poor fund total, including salary	\$ 87.24

Water Works Fund

Electro Bleaching Gas Co., supplies	\$ 4.37
Detroit Edison Co., light and power	1,031.73
C. E. Godfrey, cartage	5.25
Water Works Dept., expenses	1.71

Total supplies	\$1,043.06
Water Works Fund total, including salaries	\$1,953.88

Special Water Works Fund

Ann Arbor Railroad Co., freight	\$126.89
U. S. Cast Iron Pipe & Foundry Co., supplies	2555.96
A. R. Cole Co., contract	1119.61
C. J. Synder & Son, contract	108.63
Mutual Electric Co., supplies	204.62
S. C. Andres, contract	1944.00
C. E. Godfrey, cartage	14.49
Cole & Huss, insurance	18.70
Holland, Ackerman & Holland, contract	585.00

Special Water Works fund total,	\$6,677.90
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Street Fund

L. G. Bird, labor	\$ 3.60
Sam. Kaimbach, labor	6.89
Matt. Koch, labor	3.60

James Mason, labor	34.20
W. H. Romig, labor	11.88
Adam Schlecht, labor	16.34
John Wendland, labor	14.88
Geo. Zeifle, labor	8.00
W. J. Grayer, team	15.56
Fred G. Hanselman, team	56.00
John E. Herrst, team	38.89
John Miller, team	10.89
Carl Rehberg, team	23.33
Claud Young, team	24.11

Total labor	\$268.17
H. D. Edwards & Co., supplies	\$ 5.03
Elgin Street Sweeper Co., supplies	3.06
Water Works Dept., water	30.36
Wm. J. Clancy, street sprinkling	76.50
The Cadillac Garage Co., supplies	1.50
Jno. C. Fischer Co., supplies	1.00
Albert Lutz, supplies	4.75
Wm. H. L. Rohde, supplies	3.58
Schumacher Hardware Co., supplies	4.63
Geo. Wahr, supplies	.50
Hertler Bros., horse feed	4.80
Michael F. Finkbeiner, repairs	22.50
Hutzel & Co., repairs	2.55
The Machine Specialty Co., repairs	10.25
Henry S. Platt, auto repairs	31.65
A. J. Paul, express, etc., paid	7.60

Total supplies, etc.	\$210.26
Street fund total	\$478.43

Recapitulation

Contingent fund	\$ 3,203.88
Fire fund	1,153.67
Police fund	681.05
Poor fund	87.24
Cemetery fund	70.00
Park fund	125.00
Water Works fund	1,953.88
Special Water Works fund	6,677.90
Street fund	478.43

Total City funds	\$14,431.05
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Ann Arbor, Mich., Feb. 3, 1919.

To the Finance committee of the Common Council: Gentlemen—I have examined the foregoing accounts against the city of Ann Arbor, and I hereby certify that they are correct to the best of my knowledge.

ISAAC G. REYNOLDS, City Clerk.

To the Honorable, the Common Council: Gentlemen—Your Finance committee has reviewed the foregoing report. Warrants for salaries were drawn Feb. 1, 1919. We recommend that same be approved and that warrants be ordered drawn for the foregoing accounts.

GEO. LUTZ, JOHN MACGREGOR, O. R. MAYER, Finance Committee.

Ald. Lutz moved the adoption of report, which was adopted by the following vote: Yeas, Ald. Sugden, Huss, Mayer, Henderson, Prochnow, Markey, Donnelly, Hauser, Spathelf, Freeman, MacGregor, Lutz, Pres. Reichert, 13. Nays, none.

Water Committee Report.

To the Honorable, the Common Council: Gentlemen—Your Water committee respectfully recommends that the Board of Water Commissioners be authorized to sell the house and barn on city property, known as the

Steere Farm, and the proceeds of such sale to be credited to the Special Waters Works fund.

Respectfully submitted, Wm. L. Henderson, Geo. Lutz, O. R. Mayer, Water Committee.

Ald. Henderson moved the adoption of report, which was adopted by the following vote: Yeas, Ald. Sugden, Huss, Mayer, Henderson, Prochnow, Markey, Donnelly, Hauser, Spathelf, Freeman, MacGregor, Lutz, Pres. Reichert, 13. Nays, none.

Special Committee Report.

Ald. Lutz presented the following report:

To the Honorable, the Common Council: Gentlemen—Your committee, to whom was referred, with power to act, the matter of providing additional booths for the Seventh ward and making such changes and repairs at the polling places as they deem necessary, respectfully report that the Board of Education has given permission to the City to use a room in the basement of the Eberbach school for the purpose of holding elections and registrations in the second precinct of said ward; and your committee advertised for proposals for finishing said room for such purpose and bids were received Feb. 1, 1919, as follows: L. F. Zells, \$319.00; E. R. Schaefer, \$299.70; Thos. Hanseman, \$298.00. Mr. Thos. Hanselman, being the lowest bidder, was awarded the contract.

Respectfully submitted, Geo. Lutz, Isaac G. Reynolds, committee.

Officers' Reports.

Annual Report of Board of Public Works.

January 22, 1919.

To the Board of Public Works, Ann Arbor, Michigan:

Sirs—I submit the following report of work done, under my direction, in your Engineer's Department, during the year ending December 31, 1918.

Respectfully submitted, Geo. H. Sandenburgh, City Engineer.

PAVING.

Alley in Block 2 S., R. 3 E.: The plans and specifications for this pavement were submitted to you in October, 1917. Due to the lateness of the season, the work was postponed until the summer of 1918. This is a two course concrete pavement, seven inches thick. The base is five inches thick of one-two and one-half-five concrete. The wearing course is two inches thick of one-two cement mortar. The total cost of this pavement was \$839.29, distributed, as follows:

Engineering and superintendence	\$ 54.26
Materials and supplies	785.03

Total	\$839.29
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Unit cost for removing cobble stone pavement, 15c per sq. yd.

Excavation, 78c per sq. yd.

Concrete pavement, \$1.59 per sq. yd.

Only one bid was received for this job. This bid was considerable higher than the estimate. On recommendation of the Board, the bid was rejected and the work ordered done under the direction of the Street Commissioner and Engineer. The construction was under the immediate direction of the Street Commissioner.

Resurfacing North Division Street:

This year, it was necessary to resurface two blocks of the asphaltic concrete pavement on North Division street, between Kingsley and Lawrence, and Ann and Catherine, laid in 1915. This work was done by the W. B. Chalmers Company, of Grand Rapids, Michigan, under the supervision of your Street Commissioner and Engineer. The pavement was found to be in very bad condition; cracks and holes in the wearing surface were numerous. Most of the wearing surface torn up was found to be hardly an inch in thickness instead of the required two inches. The whole wearing surface was torn up and the concrete foundation swept clean. A new asphaltic concrete wearing surface was laid according to the original specifications, at a cost of \$1.30 per square yard. The cost of removing the old wearing surface was 50c per square yard. The total cost of repair was distributed as follows:

2,050 square yards of asphaltic removed at 50c.....	\$1,025.00
2,050 square yards of asphaltic concrete relaid at \$1.30	2,665.00
Engineering and inspection..	30.47

Total	\$3,720.47
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The cost of these repairs was paid for by the city, but will be collected either from the Good Roads Construction Company, the contractors, or the Chicago Bonding & Surety Company, their sureties, who are under bond to maintain the pavement for a period for five from the date of acceptance by the city.

Jackson Avenue Pavement: An estimate was prepared for the cost of pavement on Jackson avenue, from Huron street to the city limits, at a

cost of \$6.01. At present, we hope to receive federal aid on this street, in which case, all plans and specifications and superintendence will be furnished by the State Highway Department for approval by the Board of Public Works.

Maintenance: All repairs and maintenance of pavements was done under the direction of the Street Department, with the exception of North Division street.

General: With the general consent of the Board of Public Works and the Common Council, the pavement program for the year of 1918 was discontinued, owing to the government request that only essential improvement be made. The Department of Labor has made a request that all municipalities proceed during the coming year with our normal amount of improvement.

GRADING, OPENING AND MAINTAINING STREETS.

Street Lines: The total cost for all work done in connection with the running profiles, establishing grades, setting stakes, and care of street monuments, including the survey of North Main street and Beakes street has been \$345.38.

Street Maintenance: Street maintenance has been done under the supervision of the Street Commissioner. A road roller with a scarifier attached, was purchased from the Buffalo, Springfield Roller Company for \$4,100, and the old eighteen ton steam roller owned by the city. A 4 cubic foot batch concrete mixer was purchased from the Foot Manufacturing Company at a cost of \$680.00. This mixer has been a great aid to the Street Commissioner in building and repairing culverts. The amount saved over the contract price in paving the alley in block 2 S., R. 3 E., was nearly enough to pay for the mixer.

Oiling Roadways: This year, it was impossible to obtain oil for use on streets as a dust preventative. Calcium chloride was used on several streets, including Washtenaw avenue, South Main street, and Broadway. The total amount spent by this department in preparing estimates, etc., has been \$21.93. The price of the calcium chloride was \$22.00 per ton, car lots, F. O. B., Ann Arbor, Michigan.

SANITARY SEWERS.

As in other public improvements, the building of sanitary sewers was greatly curtailed during the year of

1918, only sewers of immediate necessity being constructed. Two new sewer districts were established. All sewer work was let to contractors under our standard specifications.

District No. 86, West Hoover Avenue: This is an eight inch vitrified pipe sewer, extending 450 feet west from the South Main street sewer and emptying into the eight inch vitrified pipe sewer on South Main street. The contract for this sewer was awarded to J. C. Stewart on July 15, 1918, and completed so that the final estimate was awarded on September 24, 1918. The cost has been divided as follows:

Contract cost	\$936.10
Engineering	18.13
Inspection	36.43

Total	\$990.66

Five percent of the above contract cost has been retained for one year, out of which deductions will be made for any repairs to the sewer or street that may become apparent within one year. The balance will be due Mr. J. C. Stewart on September 24, 1919. The cost of engineering and clerical work amounted to 1.94 percent of the contract cost. The cost of inspection amounted to 3.9 percent of the contract cost.

Sanitary tees with four inch openings were left in the sewer for connections from each building and each vacant lot. The total cost of this sewer is distributed as follows:

City share	\$ 55.97
Property share	934.69

Total	\$990.66

District No. 87, Ninth Street: This is an eight inch vitrified pipe sewer emptying into the eight inch vitrified pipe sewer on Huron street. The contract for this sewer was awarded to Wm. Eddy & Son on July 15, 1918, and completed so that a final estimate was awarded on August 21, 1918. The cost has been divided as follows:

Contract cost	\$292.50
Inspection	11.55
Engineering	5.09

Total

\$309.14
Five percent of the above contract cost, or \$14.63 has been retained for one year, out of which to make deductions for any repairs to the sewer or street made necessary by the construction of the sewer and which may become apparent within one year from the date of the final estimate. The

balance of the five percent will be due Wm. Eddy & Son on October 21, 1919. The cost of engineering and clerical work was 1.75 percent of the contract cost. The cost of inspection was 4 percent of the contract cost. Sanitary tees with four inch openings were left in the line of the sewer, for connections from each building and each building site. The total cost of this sewer was distributed as follows:

City share	\$ 24.44
Property share	284.70
Total	\$309.14

Plans and specifications were prepared for sanitary sewers on Wildt street, East Hoover avenue, Dexter avenue, and Berkshire and Orchard roads, but the sewers were not constructed. The total cost of preparing the plans and specifications was \$43.92.

Abandoned Contracts of Tom Joyce: A settlement was reached with Mr. Joyce's sureties, the Chicago Bonding & Surety Company, on April 12, 1918, and a judgement of \$5,920.80 was received and paid in full.

SANITARY SEWER RECORDS FOR THE STATE SANITARY ENGINEER:

Plans and profiles of the entire sanitary sewer system of the city of Ann Arbor were completed in June, 1918. Two complete copies of the records were forwarded to the State Sanitary Engineer at Lansing. The plans were approved as submitted; one copy was kept to be placed on file in the State Sanitary Engineer's office at Lansing, and the other copy returned to us and is on file in this office. This record consists of three hundred and fifty tracings, size 23x35 inches, which are filed away. For everyday reference, we have blue prints bound in book form. These records are a great help in our office and should have been

made even though they had not been requested by the State Sanitary Engineer. The total cost of making these records was \$1578.15, of which amount, \$88.34 was spent in 1916, \$680.42 in 1917, and \$809.39 spent in 1918.

Sanitary Sewer Maintenance: The care and maintenance of existing sanitary sewers during the year of 1918 has cost \$1,568.59. This includes the cost of labor, material, supplies, and tools. This is \$208.44 less than the amount spent in 1917. The work this year, consisted of building manholes, raising and lowering manhole castings, flushings and cleaning sewers. A cleaning tool was drawn through the main sanitary sewer from the outlet to Fourth avenue.

Sanitary Sewer Relief: For some time, it has been evident that storm water was getting into the sanitary sewer on Church street and on East University avenue. Upon investigation, I found that the roof water from the Engineering Building and the Surveying Buildings of the University of Michigan, is conducted to the sanitary sewer on East University avenue. The University authorities have been requested to discontinue the connection and run the roof water to a storm sewer. This will relieve the condition on Church street and Forest avenue, with which we were troubled last spring.

Tapping Sanitary Sewers: According to your ruling made July, 1914, all tapping of sanitary sewers has been done by a city employee. The cost for such work during the year of 1918 has been \$8.56.

Payment of Five Percent Retained: The following is a tabulated list of the amounts paid to the contractors during the year of 1918 on work completed in 1917. The amount is five percent of the contract cost which was retained for one year:

Dist. No.	Location.	Paid to Contractor.	Contractor.
72.	Hamilton, Rose & Sheehan addition	\$682.93	Ray D. Baker.
75.	Hill, Onondaga and Birkshire road	114.55	Wm. Eddy & Son.
76.	Washington street	21.00	Hochrein & Co.
80.	Seventh street	54.53	Hochrein & Co.
81.	Wells street	22.00	Wm. Eddy & Son.
82.	Packard and Brooklyn	201.60	Wm. Eddy & Son.
83.	Eighth street	15.95	Hochrein & Co.
84.	Killin's Heights addition	350.83	Wm. Eddy & Son.
85.	Eber White & Soule boulevards	96.26	Hochrein & Co.

Summary of Sanitary Sewer Districts: A tabulated summary of sewer districts Nos. 86 and 87, is given below with all information in regard to same.

SUMMARY OF SANITARY SEWERS BUILT DURING 1918

Streets and Limits	District	No. of house connections	Total length house con.	Length of main	Manholes	Flushtanks	Lightholes	Total cost	City to pay	Property to pay	Amount of contract	% retained on contract	When Due	Contractors
E. Hoover, Main St. West.....	86	16	0	447	4	0	0	990.66	55.97	934.69	936.10	46.81	Oct. 9, 1919	J. C. Stewart
Ninth, Huron St. South.....	87	8	0	216	0	1	0	309.14	24.44	284.70	292.50	14.63	Aug. 20, 1919	Wm. Eddy & Son
Totals		24		663	4	1		1299.80	80.41	1219.39	1228.60	61.44		

Storm and Sanitary Sewer on Glen Avenue: This sewer was completed in 1916. Before paying the five percent retained for one year, it was decided to inspect the sewer from time to time. The sewer was found to be in good condition from the out-fall to Huron street. It was impossible to inspect it from Huron street to Washington street, due to the vapor formed by the waste water from the boilers in the University of Michigan power house, which is allowed to flow into this sewer. Several attempts were made to inspect this part of the sewer, but it was impossible for a man to see, on account of the vapor. As the sewer apparently was in good condition, and as the five percent retained was over a year past due, I recommended that it be paid to Wm. Eddy & Son, the contractors. This recommendation was approved and the amount, \$618.77, paid.

STORM SEWERS.

Gott Street Storm Sewer: In April, 1918, the Common Council ordered the construction of a storm sewer on Gott street, from Miller avenue to Summit street. Bids were received on July, 1918, and the contract awarded to Wm. Eddy & Son. This sewer is thirty inch segment block from Miller avenue to Felch street, and twenty-four inch vitrified pipe from Felch street to Summit street, and empties into thirty inch segment block storm sewer on Miller avenue. Work on this contract was completed so that the final estimate was awarded on September 18, 1918. The cost was distributed as follows:

Contract cost	\$5,543.50
Engineering	31.63
Inspection	88.60

Total

Of the above contract cost, five percent, or \$270.77, has been retained for one year, out of which to make deductions for repairs to the sewer or street which may become apparent in one year. After deductions are made, the balance will be paid to Wm. Eddy & Son, on September 18, 1919. The cost of engineering and clerical work on this job amounts to .57 percent of the contract cost. The cost of inspection amounts to 1.73 percent of the contract cost.

East Washington Street Storm Sewer: This sewer is built of thirty inch segment block and twenty-four inch vitrified pipe. The construction was ordered by the Common Council in

April, 1918, and the contract was awarded to A. W. Baldwin on July 15, 1918. The work was completed so that the final estimate was awarded on October 9, 1918. The cost was distributed as follows:

Contract cost	\$3,767.10
Engineering	38.93
Inspection	107.25

Total

Of the contract cost, five percent, or \$184.63, has been retained for one year, out of which to make deductions for any repairs for sewer or street, which may become apparent in one year. After deductions are made, the balance will be paid to Mr. Baldwin on October 9, 1919. The cost of all engineering and clerical work on the contract amounts to 1.03 percent of the contract cost. The cost of inspection amounts to 2.85 percent of the contract cost.

Catherine Street and East Hoover Avenue Storm Sewer: Catherine street storm sewer is a twenty-four inch vitrified pipe sewer connecting into the existing storm sewer at Main street and extends to the alley between Main street and Fourth avenue. East Hoover avenue storm sewer is a fifteen inch vitrified pipe sewer, extending from Allen's creek to a point opposite the office of the Hoover Steel Ball Company. Hoover avenue, at this point, was without drainage and a very bad condition existed after every rain. This storm sewer was built to relieve this bad condition. The contract for the construction of these sewers was awarded to Wm. Eddy & Son, on September 16, 1918, and completed so that a final estimate was awarded on November 6, 1918. The cost is distributed as follows:

Contract cost	\$1,349.05
Engineering	20.03
Inspection	48.00

Totals

Five percent of the contract cost, or \$67.45, has been retained for one year as a fund from which to make deductions for any repairs to sewer or street which may become apparent in one year. The balance of this five percent will be due to Wm. Eddy & Son, November 6, 1919. The cost of all engineering and clerical work has been 1.25 percent of the contract cost. Total cost of inspection amounts to 2.01 percent of contract cost.

Care of Storm Water, General: During the year of 1918, this department

has spent \$200.72 for care of storm water. This amount was spent on miscellaneous work around the city. The greater amount being spent on Granger avenue, across Packard, and on North Main street, from the Ann Arbor railroad transfer track.

Storm Sewer Maintenance: For the maintenance and cleaning of storm

sewers, cleaning inlets, etc., during the year of 1918, this department has spent \$393.37. Of this amount, \$294.74 was for labor and \$26.32 for material.

Five Percent Retained: The five percent retained for one year on storm sewers completed during the year of 1917, and paid during 1918, is listed below:

Location.	Paid to Contractors.	Contractors.
West Jefferson street	\$ 91.98	Hochrein & Co.
West Madison street	131.34	Hochrein & Co.
Arch street	31.98	Wm. Eddy & Son.
State, from Edwin to Dewey, and Dewey from State to Packard	589.47.	Wm. Eddy & Son.
South University avenue	71.58	Wm. Eddy & Son.
Cambridge and Baldwin	196.01	Wm. Eddy & Son.

Storm Sewer Survey: During the past year I found that the records of existing storm sewers in the city were very incomplete, in fact, we had no records in our office of storm sewers built previous to 1912. During November and December of the past year, we made a complete survey of all existing storm sewers. We now have on file in the Engineer's office, complete plans and profiles of every storm sewer in the city. These plans and profiles show the location and depth of all storm sewers, manholes, inlets, catch-basins. This work has been done at a total cost of \$212.56.

Roof Water From the University Buildings: By your order, an investigation to determine if possible, where the storm water came from, that was causing trouble in Church street and Forest ave. sanitary sewers was made. Our investigation revealed the fact that the roof water from the Engineering building, and Surveying buildings, was conducted to the sanitary sewer on East University avenue.

Summary: A summary of storm sewers completed during 1918, and a summary of all storm sewers will be found on the following pages:

SUMMARY OF STORM SEWERS BUILT DURING 1918

Street and Limits	Length of main	Length of inlet con.	Inlets			Manholes	Total Cost	Amount of Contract	5% retained on contract	When Due	Contractors
			Regular	Alley	Special						
E. Washington and 14th St.....	824	320	10			5	3913.58	3692.70	184.63	Oct. 10, 1919	A. W. Baldwin
Gott St., Miller to Summit.....	1224	514	14			5	5663.73	5415.47	270.77	Sept. 9, 1919	Wm. Eddy & Son
Catherine, Main to Alley.....	119	13	1			2	713.01	683.60	34.18	Oct. 23, 1919	Wm. Eddy & Son
E. Hoover at Hoover Ball Co.....	191	84	3			1	694.07	665.45	32.27	Oct. 23, 1919	Wm. Eddy & Son
Totals	2358	931	28			13	10984.39	10457.22	521.85		

Summary of Sewers and Pavements: The total cost of sewers and pavements built up to, and including 1918, is divided as follows:

Pavements	\$391,862.68
Sanitary sewers	260,589.60
Storm sewers	134,487.25

Total\$786,939.53

The total cost of new pavements and sewers completed in Ann Arbor to date, is listed below, according to the year of completion:

Prior to 1900	\$176,616.21
1900	28,372.81
1901	3,704.93
1902	36,850.85
1903	34,229.39
1904	5,024.40
1905	18,744.79
1906	12,986.96
1907	34,931.94
1908	10,489.40
1909	11,867.36
1910	24,166.12
1911	82,549.47
1912	20,022.21
1913	54,369.77
1914	51,218.16
1915	51,153.83
1916	57,588.48
1917	58,919.23
1918	13,123.18

Total\$786,939.53

The total cost of repaving streets is divided as follows, according to the year of completion:

1914, State street, William to Liberty	\$ 4,572.98
1916, Liberty street, Fourth avenue to Fifth avenue..	5,104.62
1917, East Huron street Fourth avenue to Fifth avenue	7,812.93
1918, North Division street, Kingsley to Lawrence, and Catherine to Ann street..	3,720.47

Total\$21,211.00

BRIDGES AND OTHER IMPROVEMENTS.

Broadway Bridge: The contract for the construction of Broadway bridge was awarded to Mr. J. P. Rusche, of Grand Rapids, Michigan, in February, 1917. The work was commenced early in May, 1917, and the bridge was completed so that a final estimate was awarded to Mr. Rusche on September 4, 1918. The bridge is a two span reinforced concrete arch bridge, over the Huron river on Broadway. The entire work of design and superintendence

of construction was done through your Engineer's office. The bridge is designed to carry the heaviest street and interurban cars. The total cost is divided as follows:

Payments to contractor	\$51,608.28
Engineering	1,061.16
Inspection	552.43
Work done by Engineering Department	24.55

Total cost\$53,246.42

The amount spent for engineering during 1916 and 1917 was \$901.54, leaving \$159.62 as the amount spent during 1918. The amount spent for inspection during 1917 was \$471.07, leaving \$81.36 as the amount spent for inspection during 1918. The amount paid to the contractor during 1918 was \$20,875.84. The total cost of engineering amounts to 2.2 percent of the contract cost. The total cost of inspection amounts to 1.07 percent of the contract cost.

Bridge at Island Park: On August 6 1917, this department was authorized by the Common Council to proceed with the construction of this bridge by city force account. Reinforced steel was not received until late in November, 1917, too late to begin construction that year. The work was started during the early part of May, 1918, and the bridge was completed during July. The total cost of the bridge was as follows:

Steel	\$ 105.41
Labor	996.46
Team	118.51
Cartage	26.21
Lumber	277.84
Coal	5.64
Supplies	44.33
Repairs	12.65
85 barrels of cement	192.33

Total\$1,779.38

The total cost of the bridge has been \$479.38 more than the amount appropriated. This is due to the increased cost of labor, cement, lumber, and all materials used. Another difficulty was experienced in getting a man familiar with bridge construction. It was impossible to get a man of this type for such a short job, consequently, we were forced to hire a house carpenter who was not familiar with bridge work. The cost of labor is thus higher than it should have been. Considering everything, the cost of the bridge is about 25 percent higher than the appropriation made nearly two years ago. This is consistent with the

advance in the cost of building construction in general.

Bridge and Viaduct Maintenance: The viaduct on Broadway, between the Broadway bridge and the Michigan Central railroad overhead bridge, was painted with a cement mortar wash. Wall Street bridge was given the same treatment. The iron pipe railing on the Broadway viaduct was painted with one coat of asphaltic paint. The total cost of this work including labor and materials was \$52.88.

Heating Plant at Fire Station No. 1: The heating system installed in this station in 1916 and 1917 did not operate successfully during the winter of 1918; there has been difficulty in heating the building, and the furnace needed constant attention. It was apparent that the old system needed overhauling, in order to put it in proper working condition. The Board of Public Works was authorized by the Council, to proceed with the work of making the necessary repairs. The repair work was done by Huizel & Co. under your direction, at a cost of \$502.97; repairs to plumbing by G. A. Raiser at a cost of \$185.19, work on scales at a cost of \$507.61, making a total of \$1,195.77, spent at the Fire Station, during 1918.

Sidewalk and Curb Grades: During the past year, this department has furnished lines and grades for 1 $\frac{3}{4}$ miles of sidewalks, which were built by the city contractors. Beside this, the department has furnished lines and grades for all walks built by property owners. The total cost of sidewalks built by the city was \$6,104.82. The total cost for sidewalks and curb grades during 1918, has been as follows:

Sidewalk grades	\$461.53
Curb grades	33 12
Total	\$499.65

Summary of Yearly Cost of All New Public Works: The cost of all new public improvements completed this year, for which payments have been made through this office, is as follows:

Cost of sewers and pavements	\$13,123.18
Resurfacing Division street	3,720.47
Broadway bridge	53,246.42
Heating plant for Fire Station No. 1	1,195.77
Total	\$71,285.84
Of the above amount, \$32,105.05 was	

spent in 1917 on work not completed until 1918. This leaves a net amount paid out through this department for public works, during the past year, of \$39,180.39. This is about half of the amount expended during the year of 1917.

GENERAL.

Steere Farm Maintenance: The survey of the Steere Farm, which was started in December, 1917, was completed during the past year at a total cost of \$158.67, of which \$66.00 was spent in 1917. Deeds were prepared, and a trade made with Mr. Steere in order to equalize the trade with Mr. Steere, the southeast quarter of the southeast quarter of section 17, town 3 S., R. 6 E., Washtenaw county, was deeded back to him. This description embraces forty and a fraction acres. In return, Mr. Steere deeded to the city, that part of the southeast quarter of the northeast quarter of section 17, T. 35 S., R. 6 E., Washtenaw county, formerly owned by Mr. Steere. This parcel of land embraces twenty-six and a fraction acres. Thus Mr. Steere received from the city, forty and a fraction acres and deeded to the city, twenty-six and a fraction acres of land. This thirteen acres is returned to Mr. Steere, owing to the fact that in the original transaction, he was paid for thirteen acres less than the amount actually received by the city. Mr. Steere has contended for some time, that the city had received thirteen acres more than they paid for. Our survey verifies Mr. Steere's statement, consequently we were ordered by the Common Council to make the proper survey and prepare deeds for a trade with Mr. Steere, whereby he would receive thirteen acres of land.

Tools, Machinery and Supplies: A sixteen hundred gallon per hour capacity centrifugal pump was purchased for \$360.00, also one four and one-half cubic foot batch concrete mixer for \$680.00, and one road roller with scarifier attached for \$4100.00.

Work for Other Departments: For the Street Department, work to the amount of \$118.30 was done by employees of the Engineering Department. This includes unloading tank car of tarvia and firing boiler. For the Park Department, \$195.26 was spent in connection with the Island Park bridge and other miscellaneous work. For the Water Department, \$1.75 was spent by this department.

Automobile: In April, 1918, you recommended to the Common Council

that they trade in the Ford car belonging to the city, in use by this department. This was concurred in and a new car was purchased early in April. The total cost of repairs and supplies on the new car from April to December 31 was \$86.25. This, I think, is a very remarkably low cost for repairs. The amount spent for tire repairs since May first, has been \$4.50. This is very low indeed. The total cost of running the car for the past year has been as follows:

General repairs	\$210.82
Tire repairs and new tires	21.50
Cleaning, repairing and oiling by Engineering Department.	25.74
Gasoline and oil	160.00
Operating cost	\$418.06
Cost of new car	\$300.00
Total cost of car for year...	\$718.06
The operating cost is \$71.28 less than the operating cost for 1917.	

SUMMARY OF EXPENDITURES OF ENGINEERING DEPARTMENT.

Engineering	\$3,974.73
Sewer work	2,101.50
Clerical	746.64
Inspection	353.15
Total labor	\$7,176.02
Office supplies and equipment	\$ 384.91
Surveying supplies and equipment.....	105.71
Automobile, supplies and repairs	592.71
Sewers, supplies and equipment.....	451.07
Bridge and viaduct maintenance	12.55
Gasoline and oil from city tanks.....	125.35
Miscellaneous items	29.13
Total materials	\$1,701.43
	\$7,877.45

SUMMARY OF MONTHLY LABOR REPORTS.

Job. No.		
1.	Accounts	\$ 49.73
2.	Records	833.34
3.	Correspondence	118.08
4.	Reports, monthly and annual.....	145.67
5.	Council, board and committee meetings	64.13
6.	Inspecting plumbing, and laying tile .....	.71
7.	Numbering houses	1.75
8.	Information given to public.....	280.51
9.	Information received from others for city	32.43
10.	Sanitary sewer maintenance.....	1,205.97
11.	Storm sewer maintenance	294.74
12.	Engineer's office, cleaning and arranging	19.08
13.	City yards and shed, cleaning and arranging	9.13
14.	Supplies, Engineer's office	4.41
15.	Equipment, Engineer's office.....	6.95
17.	Equipment, surveying	4.41
18.	Bids, quotations, and discount on material for general purposes	6.95
19.	Work for Water Department.....	5.72
20.	Work for Park	15.60
22.	Sidewalk grades	461.53
23.	Curb grades	38.12
24.	Street lines and grades	345.38
25.	Preliminary estimates .....	.74
56.	Steere Farm, survey of	92.67
57.	Claims	1.72
58.	Tapping sanitary sewer	8.56
59.	Sickness and vacations	200.08
60.	Automobile	25.74
65.	Bridge and viaduct maintenance	40.33
66.	Directing work of department.....	433.94
67.	Oiling roadways	21.93
75.	Care of storm water—general.....	184.40

85.	Paving on Miller avenue .....	.72
86.	Broadway bridge plans and specifications	265.53
87.	Heating plant for City Buildings and repairs for Fire Station No. 1	4.08
91.	Sanitary sewer records for State Sanitary Engineer	809.39
92.	Work for Street Department	118.30
95.	Ninth street sanitary sewer, Washington to Huron street....	16.63
100.	Assessor's plats for city	43.17
103.	Onondaga and Hill street sanitary sewer .....	.75
106.	Bridge at Island Park	180.66
108.	Sanitary sewer on Wells street, Baldwin to Ferdon road ....	.75
110.	Arch street storm sewer, Packard to Oakland .....	.75
115.	Killen's Heights sanitary sewer	1.60
125.	Paving alley in block 2 S., R. 3 E.	23.32
126.	Improvement to City property—Fourth avenue .....	.75
127.	Storm sewer on East Washington and 14th, to Belser	146.18
128.	Storm sewer on Gott, Miller avenue to Summit	120.23
129.	Sanitary sewer on West Hoover avenue	69.21
130.	Sanitary sewer on Berkshire road and Orchard street	19.34
131.	Municipal Garage	25.72
132.	Sanitary sewer on East Hoover	8.42
133.	Sanitary sewer on East Hoover avenue	13.65
134.	Storm sewer on William street, from First to Fourth street.	8.41
135.	Storm sewer on East Catherine and East Hoover avenue....	68.03
136.	Repairing Division street pavement	21.23
137.	Storm sewer survey	212.56
138.	Dexter avenue sanitary sewer	12.51
139.	Tool house at Fair View cemetery	2.57
141.	Investigation of roof water from University buildings	40.37
142.	Jackson avenue pavement	6.01
Total		\$7,176.02

SUMMARY OF EXPENDITURES FOR EQUIPMENT AND SUPPLIES.

Job. No.		
10.	Sanitary sewer construction supplies	\$ 356.67
11.	Storm sewer maintenance supplies	26.32
75.	Storm sewer construction supplies	62.16
14.	Supplies for Engineer's office	302.61
15.	Equipment for Engineer's office	82.30
16.	Surveying supplies	68.01
17.	Surveying equipment	37.70
119.	Cartage, Dewey avenue sanitary sewer	5.92
60.	Cost of new car	\$300.00
	Repairs, cleaning and oiling	232.32
	Gasoline and oil	160.00
		<hr/>
		\$ 692.32
65.	Bridge and viaduct supplies	12.55
86.	Broadway bridge supplies	5.95
	Miscellaneous	23.18
		<hr/>
		\$1,675.69
Total labor		\$7,176.02
Total equipment and supplies		1,675.69
		<hr/>
Total expenditures		\$8,851.71

Engineer's Office: The amount chargeable directly to your Engineer's office, including all equipment, supplies, and all the time devoted to running the office by myself and employees, has been distributed as follows:

Job No.		
1.	Office accounts	\$ 49.73
2.	Office records	521.59
3.	Office correspondence	118.08
4.	Reports, monthly and annual	145.67
5.	Council, Board and Committee meeting	64.13
6.	Inspecting plumbing .....	.71

SUMMARY OF SANITARY SEWERS IN THE CITY OF ANN ARBOR

District No	Street	Date	Total length of Main	No. Manholes	No. Flush-tanks	No. Lightholes	8-in. Tile	10-in. Tile	No. of House Connections	Length of House Conn.	Flushtank changed to Manhole	Total Cost
	Main sewer	1893					(No Record)					\$ 41,252.83
1	Liberty, E. of main sewer	1894					(No Record)					3,954.44
2	Washington, E. of main sewer	1894					(No Record)					6,831.08
3	Hill st., district E. of main sewer.....	1895					(No Record)					27,912.80
4	Huron, E. of main sewer	1895					(No Record)					4,303.19
5	William, E. of main sewer	1895					(No Record)					8,454.98
6	Detroit	1897					(No Record)					12,587.00
7	W. Liberty, to near Seventh	1897	1804	5	1	5	1804		66	998		1,887.84
8	E. Catherine, Division to State	1900	631	1	1	1	631		22	256		527.43
9	Ann, Huron, 13th and 14th	1901	1370	4	2		1370		50	988		2,163.46
10	14th and Volland	1901	1266	3	1		1266		35	630		1,541.47
11	First, Madison to Jefferson	1903	918	3	1		613	305	27	508		1,169.51
12	W. William st.	1903	1527	4	1		583	544	40	678		2,083.02
13	Beakes, 4th av., 5th av., Kingsley.....	1904	4204	8	7		2706	1498	137	2316		5,024.40
14	N. Main, main sewer to Catherine.....	1905	1393	3	2		1393		69	1444		2,322.48
15	Cambridge, Washtenaw, Vinewood, Ferdon	1905	1487	4	2		1487		28	707		1,735.64
16	W. Liberty, extension to city limits.....	1906	1352	3	1		1352		40	726		1,265.68
17	3rd, William to Jefferson	1905	602	1	1		602		19	328		590.84
18	W. Huron	1906	3509	8	1		2942	567	102	2066		4,111.52
19	Church	1906	444	1	1		444		22	376		574.76
20	Miller av.	1906	2224	9	1		1737	487	57	987		2,147.27
21	Spring, Miller to Hiscock	1907	1252	4			688	564	* 32			1,070.92
22	W. Washington and 3rd	1907	2834	8	2		2834		* 88			2,369.03
23	S. Division—(note)	1906	200	1	1		200		8	160		250.00
24	Geddes ave., Hill and Oswego.....	1907	1730	5	2		1730		* 30			1,530.50
25	State and Dewey av.	1907	3134	3	2		2882	242	* 88			2,186.57
26	Broadway and Wall st.	1907	5682	20	2		3571	2111	*143			4,989.01
27	Second Ward	1908	11470	24	13		3540	1930	*337			8,035.98
28	Belser, Observatory, Volland	1907	2380	4	3		2380		* 39			1,895.50
29	Spring st. extension	1908	896	3	1		896		* 26			632.32
30	E. Catherine and Clark	1908	1498	3	2		1498		* 38			1,148.36
31	Fuller and Elizabeth	1907	1080	2	2		1080		* 22			943.60
32	S. Main, Mosley, Ashley	1909	3679	8	3		3108	571	* 98			2,229.03
33	Arch, White, McKinley	1909	1458	3				1458	* 58			513.49
34	Packard, Granger, Ferdon	1909	10128	27	7		7030	3098	*376			6,300.06
35	Second, William to Liberty	1909	321	1	1		321		* 12			240.69
36	N. 5th av. and E. Summit	1910	891	2	2		891		* 27			741.30
37	Cambridge, Washtenaw to Hill.....	1910	1200	3	2		1200		* 34			911.39
38	Hill Division to Main	1910	1320	3	1		1320		* 40			1,037.00
39	Fuller, Glen to State	1910	1197	3	1		1197		* 19			815.93
40	Ashley, Kingsley to Ann	1910	771	2	1		771		* 30			667.77
41	Felch, Fountain, Hiscock, Chapin and Cherry	1910	4070	8	6	4	3328	742	*122			3,229.79
42	N. Main, Summit to A. A. R. R.....	1911	651	2	1		651		* 17	230		680.14
43	4th av., Beakes to Summit	1911	869	2	1		869		* 31			646.55
44	Depot, 4th av. to Main	1911	335	1	1		335		* 9			204.26

45	White and McKinley	1911	323	1	1		323						241.52		
46	Olivia av. and Minerva rd.	1911	733	2	1		733					*	29	538.53	
47	E. Ann, Glen to Ingalls	1911	655	1	1		655					*	28	532.71	
48	Murray av., Washington to Liberty	1912	724	4	1	1	738						27	1,009.62	
49	Olivia av., N. of Minerva rd.	1912	157	1	1	1	166						8	301.02	
50	Myrtle, Oswego to city limits	1912	651	1	1	1	668						17	1,795.69	
51	Summit st., Main to Spring	1914	1295	5	1	1	1302					*	41	1,158.57	
52	Hiscock st., Fountain to Miner	1913	372	1	1	1	378					*	14	318.41	
53	Crest av. and W. Washington	1914	1774	4	3	3	1798						66	2,432.81	
54	W. Liberty to city limit	1913	464	1	1	1	472						24	1,101.54	
55	Austin av. and Washtenaw av.	1914	2486	9	2	2	2494					*	78	3,862.29	
56	Third Ward	1914	7186	22	8	8	6832	430				*	244	7,655.78	
57	Geddes av., Oswego to 210 ft. E.	1914	276	1	1	1	281						6	574.29	
58	W. Huron st. to end of pavement	1913	75	1	1	1	82						3	187.06	
59	Ann st., Clark to Observatory	1913	610	1	1	1	614					*	18	765.61	
60	Brown st., 4th av. and Philip st.	1914	2551	7	3	3	2576					*	93	2,902.70	
61	E. Catherine, Detroit and Fourth	1914	2622	9	4	4	2626						73	4,863.19	
62	E. Catherine, Clark to 100 ft. E.	1914	101	1	1	1	104					*	5	155.14	
63	Sixth, Seventh and Eighth sts.	1914	3146	12	5	5	696 C.I. 2372 T. 36 C. I.						88	1330	4,658.28
64	Third, Fourth and Fifth sts.	1914	647	1	3	3	628 T.					*	31		750.98
65	Packard st.	1914	428	1			428					*	11		271.15
66	First st., Catherine to Ann	1914	225	1	1	1	231					*	10		423.80
67	Moore st., Broadway to Pontiac	1914	545	2	1	1	546					*	16		634.22
68	Seventh, Bath and Willow sts.	1915	4523	21	6		3735	788				*	77		3,593.14
69	Mosley st., Second to Third st.	1916	250	1	1	1	222					*	14		250.63
70	West st. from Main st. W.	1916	552	3	1		504					*	24		622.18
71	Roosevelt av., Church to Forest	1916	222	1			204					*	9		204.92
72	Hamilton, Rose & Sheehan Add.	1917	10297	33	9		6014	3661				*	311		16,293.03
73	Olivia av. from Wells st. N.	1915	188	1	1	1	188					*	6		150.21
74	Eber White Addition	1916	1766	10	2		1670						48	1064	2,663.82
74	Lincoln st., 4th av. to Main	1916	564	2	2		524					*	20		640.89
75	Hill, Onondaga, Geddes and Berkshire	1917	1366	6	2		1312					*	27		2,499.17
76	Washington st., 12th to 14th	1917	646	3	1	2	12 C. I. 340 V. T.	250				*	22		862.93
77	John K. ave. and First st.	1916	995	4	2		923	15 in.				*	36		1,082.34
78	Fifth st., south of Madison	1916	882	3	1		806					*	38		874.80
79	Hiscock st., Summit to Spring	1916	1080	6	1		1002					*	39		1,251.27
80	Seventh st., Liberty to Jefferson	1917	1374	6	2		1310 V. T.					*	26		1,204.50
81	Wells st., Baldwin to Ferdon	1917	368	3	1		336					*	16		485.85
82	Packard and Brooklyn	1917	3307	11	2		3073					*	117		4,165.25
83	Eighth st., Huron to Washington	1917	210	1	1		198					*	6		339.01
84	Killins Heights Addition	1917	5324	14	8		4932					*	196		7,218.53
85	Eber White and Soule Blvd.	1917	1144	7			1082					*	31		2,035.79
86	West Hoover Ave.	1918	447	4			415					*	16		990.66
87	Ninth St., Huron St. South	1918	216	1			200					*	8		309.14
	Total														\$260,589.60
	* Branches only.														

Note—District 23 never accepted by city. Above data is engineer's approximate estimate.

Note—In District No. 50 one 8 in. house connection, 28 ft. long is included in above table.

7.	Numbering houses	1.75
8.	Information to public	280.51
9.	Information from public	32.45
12.	Cleaning and arranging office	19.08
13.	Cleaning and arranging yard and shed	9.13
14.	Office supplies	269.61
15.	Office equipment	81.25
16.	Surveying supplies	50.35
17.	Surveying equipment	45.87
59.	Sickness and vacations	200.08
66.	Directing work of department	433.94

Total\$2,323.91

SUMMARY OF COST OF ALL PUBLIC IMPROVEMENTS.

Cost of sewers in 1918.....	\$12,283.89
Cost of pavements in 1918	839.29
Resurfacing Division street	3,720.47
Broadway bridge	21,141.37
Fire Station No. 1	1,195.77

Total\$39,180.79

SUMMARY OF PAYMENTS TO CONTRACTORS DURING 1918.

J. C. Stewart, sanitary sewer, District No. 86	\$ 936.10
Wm. Eddy & Son, sanitary sewer, District No. 87	292.50
Wm. Eddy & Son, Gott street storm sewer	5,543.50
Wm. Eddy & Son, Catherine street and East Hoover avenue storm sewers	1,349.05
A. W. Baldwin, E. Washington and Forreth street storm sewer	3,767.10
W. B. Chalmers, Division street pavements	3,690.00
J. P. Rusche, Broadway bridge	20,875.84
Hochrein & Co., 5 percent retained.	411.06
Ray D. Baker, 5 percent retained.....	682.93
Wm. Eddy & Son, 5 percent retained	2,196.82

Totals\$39,744.90

SUMMARY OF EXPENDITURES FOR LABOR DURING 1918.

	Engineering.	Clerical.	Inspection.	Sewer Work.	Totals.
G. H. Sandenburg	\$1,618.25		\$ 9.57	\$ 150.16	\$1,777.98
F. L. Feiner	1,081.86		86.73	204.74	1,373.33
Manley Osgood	332.50				332.50
W. B. Russell	204.94				204.94
J. W. Walsh	129.30		50.41		179.71
H. L. Stanger	94.80				94.80
G. W. Francis	93.15				93.15
E. W. Weeber	90.45				90.45
R. M. Woodward	69.40		4.40		73.80
A. Hassan	56.58		176.17		232.75
S. C. Jacka	54.30				54.30
O. C. Klager	21.00				21.00
F. H. Taylor	18.15				18.15
H. P. Dodge	18.00				18.00
L. R. Milburn	17.80				17.80
Julius Loehrke	16.40		4.07	912.51	932.98
E. D. Glaziel	15.90				15.90
M. W. Hyde	15.80				15.80
H. J. Schlee	13.50				13.50
A. Anderson	6.60				6.60
J. L. Evarts	3.20				3.20
N. W. Paquette	2.85				2.85
H. E. Donnelly		279.33			279.33
E. F. Lutz		224.86			224.86
H. M. Woodward		242.45			242.45
St. Commissioner' rolls				834.09	834.09
Totals	\$3,974.73	\$746.64	\$353.15	\$2,101.50	\$7,176.02

SUMMARY OF PAVEMENTS IN THE CITY OF ANN ARBOR

District N.	Street	When laid	No. sq. yds.	Total Cost	Total Cost per sq. yd.	Cost per sq. yd. pavement only	Kind
1&2	Main	1898	12,730	\$ 31,375.15	\$2.46	\$1.64	Brick on concrete
3	Washington,						
	Ashley to 5th av.	1899	5,140	11,645.17	2.27	1.73	Brick on concrete
4	Huron, Ashley						
	to State	1900	10,791	27,845.38	2.58	2.17	Asphalt block on sand
5	State Huron						
	to Monroe	1902	12,484	31,778.98	2.55	2.16	Asphalt block on sand
6	Ann, Main to						
	Fourth av.	1902	1,589	2,860.70	1.80	1.39	Brick on sand
7	Liberty, Ashley						
	to State	1903	9,140	24,486.06	2.68	2.19	Asphalt block on sand
8	Fourth av						
	Huron to Liberty	1903	2,431	6,490.80	2.67	2.19	Asphalt block on sand
9	William	1907	7,519	19,092.01	2.54	2.03	Bitulithic
10	N. University	1905	5,045	10,720.16	2.03	1.63	Brick on concrete
11	Alley	1908	350	672.74	1.92	1.50	Brick on concrete
12	Maynard	1909	1,883	1,930.13	1.03	.78	Ann Arbor tar-concrete
13	N. Fourth av.,						
	Huron to Ann	1910	1,159	1,351.34	1.17	.88	Ann Arbor tar-concrete
14	E. Huron and						
	Twelfth	1910	6,765	6,685.50	.99	.76	Ann Arbor tar-concrete
15	Washington,						
	5th av. to 12th	1910	8,633	8,189.73	.95	.71	Ann Arbor tar-concrete
16	Washtenaw av.	1911	12,092	12,392.81	1.03	.78	Ann Arbor tar-concrete
17	State, Packard						
	to Arch	1911	2,587	2,672.49	1.03	.84	Ann Arbor tar-concrete
18	S. Main and						
	Packard	1911	20,826	23,172.05	1.11	.78	Ann Arbor tar-concrete
19	N. Main, Catherine						
	st. north	1911	10,117	11,110.86	1.10	.82	Ann Arbor tar-concrete
20	Hill and Oswego	1913	5,682	7,726.41	1.36	.93	Ann Arbor tar-concrete
21	Fifth av	1911	10,483	11,678.31	1.12	.84	Ann Arbor tar-concrete
22	Alley	1911	293	314.84	1.07	.84	Ann Arbor tar-concrete
23	Alley	1911	920	1,029.38	1.12	.77	Ann Arbor tar-concrete
24	Arch and Thayer	1911	1,833	1,747.35	.95	.77	Ann Arbor tar-concrete
25	State, Monroe						
	to Packard	1911	3,158	3,181.57	1.01	.78	Ann Arbor tar-concrete
26	Mary	1912	2,407	2,703.08	1.12	.89	Ann Arbor tar-concrete
27	Ashley	1912	7,711	9,071.92	1.18	.91	Ann Arbor tar-concrete
28	W. Liberty, Ashley						
	to city limits	1913	15,612	20,836.90	1.34	.98	Ann Arbor tar-concrete
29	W. Huron st.,						
	Ashley to Forks	1913	14,131	19,257.61	1.36	1.01	Ann Arbor tar-concrete
30	Church, Washtenaw						
	to Prospect	1914	11,832	14,802.93	1.25	.98	Ann Arbor tar-concrete
31	Hill st., State st.						
	to Washtenaw av.	Not Completed					
32	Ann st., Main st.						
	to First st.	1915	2,085	2,740.80	1.33	1.02	Reinforced concrete
33	Jefferson st., 5th						
	av. to State st.	1915	4924.2	8,665.40	1.62	1.30	Asphaltic concrete
34	Division st., Detroit						
	to Packard	1915	14,372.5	24,733.97	1.60	1.29	Asphaltic concrete
35	Geddes ave., Oxford						
	to Oswego	1915	3273.0	5,431.55	1.66	1.19	Reinforced concrete
36	Catherine st. and						
	Miller av.	1916	9596.0	22,629.31	2.36	1.95	Brick on concrete base
37	Alley, Blk. 2 S.,						
	R. 3 E.	1918	470.0	839.29	1.78	1.59	Concrete
Totals			240062.7	\$391,862.68			

NOTE—The pavement between the rails of the street car track on Washtenaw ave. and between the rails and for a distance of 18 inches out on either side of the track on Packard and Main streets is of brick on concrete and is not included in the above statement.

NOTE—The pavement between the rails of the street car track and for a distance of 18 inches out on either side of the track on W. Huron st. is of brick on concrete and is not included in the above statement.

Office of Street Commissioner, Ann Arbor, Mich., Jan. 13, 1919.

Hon. Board of Public Works, Jos. L. Arget, President: Gentlemen—I herewith present the annual report of the Street Department for the year ending December, 1918; including care of streets and sidewalks, building and repairs of sidewalk extensions, crosswalks, inlets, etc., and gravel, cement and other materials used:

STREET WORK—

Cleaning paved streets, labor, teams and driver		
motor sweeper	\$3,552.18	
City team	1,204.00	
	<u>\$4,756.18</u>	
Gasoline for motor sweeper	\$199.87	
Freight on same ..	16.88	216.75
Gasoline (locally)	156.28	
Water, 95,449 gals. at 10c per M. gals.	9.55	
Lubricating oil (motor sweeper)	18.90	
Repairs motor sweeper	\$161.05	
Repairs, motor sweeper, labor	\$66.28	
Supplies, motor sweeper	\$21.76	\$249.09
Material for brooms (m. sweeper)	\$108.30	
Freight	\$ 14.98	
Labor making brooms	\$206.56	\$329.84
Repairs standpipes	83.30	
Hand brooms	\$38.70	
Freight	\$1.16	39.86
Repairs horse sweeper...	2.91	\$5,862.66
Average cleaned by motor sweeper, 103,737 sq. yds. per day.		
Total for season, 17,842,764 square yards.		
Cost of cleaning per 1,000 sq. yds., 0.3285.		
Cleaning leaves from paved streets		\$ 407.06
Taking care of snow—		
Cleaning snow from crosswalks and gutters	\$825.46	
Plowing snow from sidewalks	214.56	
Opening streets to cemeteries	3.54	
Hauling snow from streets	635.92	
Plowing snow from gutters	168.50	
Hauling and repairs snow plows	17.30	\$1,835.68.
Repairs of street pavements, labor	\$466.83	
99 5 sacks cement, 24.88		
bbbls., @ \$2.251.....	56.00	
26 loads gravel @ 35c.....	9.10	
11.5 loads sand @ 40c.....	4.60	
1075 brick @ \$2.78 per M.	44.49	
1 bbl. Tarvia K. P., 50 gal.	8.50	
2 bbls. tar (S. State), 104 gals.	5.20	
1030 old asphalt block @ \$5.00 per M	5.15	\$599.87
(Of above amount work done for water dept., public service corporations, etc., amounted to \$492.83. Bills for which have been put in city clerk's office for collection)		
Treating dirt streets with		

teams and truck	\$132.88	
calcium chloride: labor,		
Car calcium chloride (52,-500 lbs.)	\$525.41	
Freight	52.09	
Unloading	3.63	
Repairs spreader ..	4.85	585.98 718.86
Number of streets or sections treated, 6. (Ordered by resolution of Council except two sections where treatment took place of second oiling not done in 1917. Total paid to city treasurer: Wash-tenaw avenue, 1st section, \$14.36; Washtenaw avenue, 2nd section, \$63.20; total, \$77.56.)		
Grading streets with scraper and street drag, labor, teams and tractor		\$ 1,037.74
Grading, graveling and patching dirt streets	\$5,471.08	
1740 loads gravel.....	578.81	6,049.89
860 loads gravel @ 25c,	\$215.00	
258 loads gravel @ 30c.	77.40	
538 loads gravel @ 35c.	188.30	
141 loads cinders @ 10c	14.10	
2.6 tons broken stone and cartage	21.01	
84 loads gravel including hauling @ 75c....	63.00	
Total	\$578.81	
Tarring Concrete Pavements—		
Repairs holes with Tarvia and joints with tar....	\$ 384.48	
Tarring surface, sweeping, sanding and hauling sand	1,103.97	
25,719 gals. Tarvia.....	3,414.97	
350 gals. Tarvia (K. P. and X. C.)	62.50	
Freight	213.54	
Current at tar tank pump	14.25	
Coke, heating boiler....	13.88	
Work on tar tank and boiler	9.43	
367 loads sand (screened)	238.55	
50 loads sand	17.50	
2372 gals. tar, locally....	118.60	5,591.17
Grading with scarifier, raking stones, dragging and wetting roadway....	\$615.07	
Repairs scarifier, labor....	17.20	
Repairs scarifier, \$18.65; express, \$1.55	19.60	
Maintenance scarifier, sharpening teeth	18.00	
Kerosine oil fuel and gasoline	59.38	
Lubricating oil	12.43	741.68
Cleaning gutters on dirt streets.		2,838.59
Cleaning leaves from gutters, dirt streets		1,489.16
Mowing weeds from streets and lawn extensions	\$419.63	
Use of mower	1.75	421.38
Grading, etc., Streets—		
Grading and graveling N. Main st., from A. A. R. R. to city limits, labor and teams,	\$1,272.31	
1005 loads gravel @ 25c..	251.25	1,523 56
Grading at 5th ward polls.....		3.75
Sprinkling intersections, State st. district (1917 bill in 1918).....		78.52
Putting up street signs, labor	\$34.60	
Freight	2.62	

Boards and painting.....	42.50	79.72	Miller av., between Fountain and Gott st.	106.31	172.83
Total Street work	\$29,279.29		Total Sidewalk work.....	\$8,183.76	
CULVERTS—			SIDEWALK EXTENSIONS, CROSSWALKS, ETC.—		
Culvert over Allen's creek, across Hill st., east side			Building sidewalk extensions, crosswalks, cement culverts at street intersections, etc.,		
Division st., labor.....	\$285.01		labor	\$1,363.25	
241 sacks cement, 60.25 bbls. @ \$2.251	135.62		45 loads gravel @ 40c.....	18.00	
42 loads gravel @ 35c.....	14.70		191 loads gravel @ 35c....	66.85	
Railing	20.10	\$455.43	1026.5 sacks cement, 256.63 bbls. @ \$2.251	577.67	
Repairs Culverts—			12 loads sand @ 50c.....	6.00	
5th ave., between Hill and Madison, Chapin st.....	\$14.43		15 loads sand @ 40c.....	6.00	
Miller avenue	6.16		108 loads filler at 15c....	16.20	
Jefferson st. and A. A. R. R... 5 sacks cement, 1.25 bbl, @ \$2.251	19.70		315 old asphalt block and brick @ \$.00 M.....	1.58	
1 load gravel .....	.35	43.45	11,749 brick @ \$22.78 M....	267.64	
Repairs culverts (contract)—			Lumber	67.85	
T. Hession, wing wall, S. 7th st., 3.0 cu. yds. @ \$15.....	\$54.00		Irons for cement culverts	176.10	\$2,567.14
T. Hession, wing Broadway, 2.25 cu yds. @ \$15.....	33.75		Sidewalk extensions laid by contract—		
T. Hession, wing walls, north and south sides, N. Main, 4 cu. yds. @ \$15.....	60.00	147.75	By C. M. Thompson & Son: 20 pieces, 309.36 lin. ft., 1337.4 sq. ft.	162.11	
Cleaning culverts and Allen's creek		57.08	By Thos. Hession: 14 pieces, 191.4 lin. ft., 945.92 sq. ft.....	115.24	
Total Culvert work.....	\$703.71		By L. F. Staebler: 2 pieces, Benj- amin and Sybil, 1 piece, 4th ave. and William, total 28 lin. ft., 140 sq. ft.	17.95	
SIDEWALKS—			By Weinberg & Kurtz: 2 pieces, John and 5th ave., 15 lin. ft., 77.89 sq. ft.	11.53	
Grading for sidewalks.....	\$1,860.09		By J. Koch Co., Incorp.: 2 pieces, 4th ave. and Catherine, 29 lin. ft., 166.49 sq. ft.....	29.47	
Repairs sidewalks, by city....	\$1.00		Curbing St—		
Repairs sidewalks, by city, State st. (paid by property).	4.65	5.65	By C. M. Thompson & Son: N. E. corner Wayne and Washtenaw, 22.95 lin. ft.....	11.48	
New sidewalk, 118 East Huron st. (paid by property owner), 15.8 lin. ft., 225.15 sq. ft.: labor, \$18.34; cement, 4.5 bbl., \$10.13; gravel, 3 loads, \$1.05	29.52		By Thos. Hession: S. E. corner Baldwin and Washtenaw, 12.95 lin. ft.....	\$6.18	
Cleaning dirt sidewalks under A. A. R. R. overhead crossings	1.60		Taking out old curb	2.80	8.98
Sidewalks built for city under con- tract—			By E. R. Schaffer, Fountain and Miller ave., 20 lin. ft.....	8.00	
For property owners (by C. M. Thompson & Son): 86 pieces, 7141.33 lin. ft., 37131.36395 sq. ft.	4,398.31		By M. G. Richmond, curb and gut- ter, 514 East William st	6.00	
For city (by C. M. Thompson & Son): 7 pieces, 306.15 lin. ft., 2884.515 sq. ft.....	344.07		By city, at water trough, 5th ward, labor	\$4.29	
(Fire engine house, city hall, front White st., public alley east side Chapin, Mill road, east side Jones, Canal st., Swift st.)			1.25 bbl. cement at \$2.251....	2.81	7.10
Sidewalks built by city under con- tract—			Repairs curb (charged to contrac- tor)	6.45	
For property owners (by Thomas Hession), 30 pieces, 1539.63 lin. ft., 7298.685 sq. ft.....	829.74		Cleaning crosswalks	58.65	
For city (by Thomas Hession), 5 pieces, 820.55 lin. ft., 4248.6 sq. ft. (N. State, Old Ladies' Home, front of Park property, Chapin st., public alley, Sybil st., park prop- erty, Washtenaw ave., Oak st., west side Glen avenue.)	532.70		Unloading cars cement	29.03	
Cutting around tree, Berkshire road and Washtenaw ave., \$5.25; cut- ting out root, 510 East William st., \$4.00 (Thos. Hession).....	9.25		Unloading car brick	20.78	
Under resolution of Council, city paid one-half cost of sidewalks, as follows—			Repairs Bridges—		
S. University ave., at Thayer (Oakland)	\$ 10.35		Planking No. 3 bridge.....	42.60	
Washtenaw ave., east of Church	56.17		Watchman new Broadway bridge	\$57.50	
			Night watchman Broadway bridge	5.50	63.00
			Repairs railing near Broadway bridge	8.65	
			Total extension, etc., work.....	\$3,174.19	
			INLETS, STORM WATER SEWERS, ETC.—		
			Repairs and cleaning inlets, gutter boxes, etc.	\$ 143.73	
			Tile	103.50	
			Repairs fence and cleaning ditch, South Division st.....	4.40	
			Laying Storm Sewers—		
			Granger west of Packard...\$81.72		
			Tile	448.87	

66 tile from city yard	36.30	566.89
North Main at A. A. R. R. crossing	\$ 60.76	
Tile	146.75	
1 bbl. cement	2.26	209.77
Cleaning and relaying: North side summit, Main to A. A. R. R.	\$132.14	
Tile	13.50	
1 bbl. cement	2.26	147.90
Hauling tile	11.65	
Inlets and grates	24.25	

Total, inlets, etc., work\$1,212.09

PAVING—

Paving alley, B. 2 S., R. 3 E. (Paving Dist. No. 37), labor....	\$412.68	
107 bbl. cement	248.99	
76 loads gravel	26.60	
Tar	4.50	
Supplies and materials	92.27	
Superintendence, tools and engineering	54.26	839.30

Total paving work\$839.30

GENERAL WORK AND REPAIRS—

Miscellaneous work and repairs....	\$ 57.23	
Taking ashes from city hall.....	13.74	
Building cement platform for scarifier at city yard, labor	\$13.60	
34 sacks cement, 8.5 bbls. at \$2.251	19.14	
6 loads gravel at 35c.....	2.10	34.84
Taking cinders from fire engine house	4.88	
Hauling tractor from ditch, Jackson ave. (charged to Water Department)	1.56	
Repairs tools and machinery, laying up scarifier, oiler, etc.	23.90	
Repairs red lanterns	5.00	
Hauling coal to city hall	2.00	
Taking out trees in streets	6.80	
Repairs cornice, 3d ward polls, city labor	\$ 2.23	
Repairs cornice, 3d ward polls, contractor's bill	31.30	33.53
Taking care of storm water, pumping cellars, etc.	93.41	
Painting and repairs stand pipes and water troughs, labor	\$9.58	
Paint	4.84	14.42
Repairs drinking fountain	3.70	

Total, general work\$295.06

SUPPLIES, REPAIRS, ETC.—

General bills	\$ 728.55	
Machinery purchased by Board of Public Works, including pump, scarifier, drag, Foote mixer,	\$5,855.60	
Freight	30.90	5,886.50
Maintenance city team		674.36
Hay	\$221.47	
oats	322.94	
Harness and repairs.....	34.45	
Veterinary	4.50	
Straw, etc.	24.20	
Horseshoeing	64.35	
Unloading hay and oats	2.45	
Maintenance street department run-about		398.84
Repairs, tires, etc.	\$256.84	
Storage	14.00	
Gasoline bought	23.22	

440 gals. gasoline from city supply, at \$0.237	104.28	
Total, supplies, etc.,	\$7,687.75	
Of above: Street machinery	\$5,886.50	
Supplies	1,801.25	\$7,687.75

RECAPITULATION.

Street work	\$29,279.29
Culverts	703.71
Sidewalks	8,183.76
Sidewalk extensions, etc.	3,174.19
Paving	839.30
Inlets, storm sewers etc.	1,212.09
General work and repairs	295.06
Street machinery	\$5,886.50
Supplies, etc.	1,801.25

Total\$51,375.15

Crosswalks built	33
Sidewalk extensions built (by city)....	88
Sidewalk extensions built (by contract)	34
Culverts repaired	7
New culverts	1
Storm water sewers laid	2
Storm water sewers relaid	1
Crosswalks repaired and relaid.....	30
Sidewalk extensions repaired	8
Gutter boxes built	26
Storm water culverts at street intersections	9
(About 306 lineal feet)	
Tile drain at intersection.....	1
Curbing set (by city).....	1
Curbing set (by contractors).....	4
Curbing repaired (by city).....	1
Sidewalks repaired (by city).....	3
Sidewalks built (by city).....	1
(15.8 lin. ft.; 225.15 sq. ft.)	
Cement sidewalks built by city under contract—	
For property owners.....	116
(8,680.96 lin. ft.; 44,430.04895 sq. ft.)	
For city	12
(1126.7 lin. ft.; 7133.105 sq. ft.)	
Grand total, 9823.76 lin. ft., or 1.7468 miles, 51788.31395 square feet.	
Notices Served—	
To repair sidewalks	226
To observe street regulations.....	28
To cut weeds	13
To clean snow or ice from sidewalks...	39

Total305

GRAVEL ACCOUNT—

Graveling and patching streets in the several wards	1740
Graveling North Main street.....	1005
Culverts	43
Extension and crosswalk work, gravel	236
Extension and crosswalk work, filler	108 344
Paving repairs	26
Paving alley (Dist. No. 37).....	76
Ct. platform, 6; new sidewalk (city), 3	9

Total loads3243

CEMENT ACCOUNT—

On hand Jan. 1, 1918.....	Bbls. 3.75
Bought in 1918: By car.....	577.
Locally.....	3.25 580.25

Total584.

Used in 1918—	Sacks
Extension and crosswalk work.....	1026 5
Paving repairs	99.5

City engineer's department...	28.
Inlets and storm sewers.....	8.
Culverts, 241-5	246.
Sidewalk, 18; ct. platform, 34; w. trough, 5	57.
Paving alley	428.
Supplied bridge contractor, etc.	103.
Island bridge (Park dept.)....	340.

Total2336. 584.

On hand Jan. 1, 1919.....None
 Bills against public service corporations,
 water department, sewer contractors and
 others (collected or in course of collec-
 tion through city clerk's office) during
 1918—

Repairing pavements (under reso- lution of the Council).....	\$ 492.83
Cutting weeds	41.71
Material sold (under order of Board of Public Works).....	114.70
Repairing surface dirt streets for Water department, plumbers, etc.	43.08
New sidewalk, No. 118 E. Huron st.	29.52
Bills against sewer contractors for filling ditches and restoring sur- face of streets (to be collected through city engineer's office when final installment due con- tractor from city).....	96.67
Paid by property owner, repairs sidewalks, S. State st.....	4.65
Paid by Forest Hill cemetery, haul- ing cobble	41.22
Paid by Becks' estate (rent of steam roller, 1916).....	12.25
Paid through city engineer's office Broadway bridge contractor, Cement	\$52.25
Grading roadway	90.25
Paid through city engineer's office, street work for sewer contractors	61.82
Old iron sold by street com- missioner	\$12.56
Old iron sold by street com- missioner	22.87

Total \$1,064.83

Bills paving work, etc., 1917, in city
 clerk's office (uncollected).....\$ 25.28

Total \$1,090.11

Respectfully submitted: A. J. PAUL,
 Street Commissioner.

INVENTORY—STREET DEPT.—

1 Kelly-Springfield scarifier.....	\$ 4,500.00
1 Foote bach mixer.....	600.00
1 Elgin motor sweeper	3,500.00
1 oiler	600.00
1 road scraper	250.00
1 road scraper	100.00
1 tar tank and boiler.....	1,200.00
1 20th Century grader.....	100.00
1 Studebaker sprinkler	150.00
2 dump wagons	150.00
1 platform scale	500.00
2 horse-drawn sweepers.....	200.00
1 team of horses.....	150.00
3 tons hay	90.00
100 bu. oats	70.00
1 double harness	20.00
1 pair bob sleighs	20.00
1 pair horse blankets.....	12.00
19 snow plows	85.00
2 patent snow plows	35.00
1 steel snow plow	15.00

1 tank on wheels.....	45.00
2 patent street drags.....	35.00
1 wood street drag.....	10.00
4 street brooms filled.....	88.00
1 bdl. hickory splints.....	22.00
3 two-wheeled carts.....	60.00
1 tool box on wheels.....	30.00
4 slip scrapers	20.00
One 5-ft. Milwaukee bach mixer..	50.00
1 lot iron pipe.....	25.00
1 tar kettle	10.00
1 two-wheeled scraper	20.00
1 diaphram pump	10.00
One 50-gal. oil tank.....	10.00
1 sand wagon	15.00
1 broom filling machine.....	5.00
6 wheelbarrows	30.00
1 log chain	2.00
3 hammers	3.00
1 pair stable blankets.....	3.00
1 stencil and alphabet.....	1.00
2 small oil cans.....	1.00
3 galvanized pails.....	1.50
1 two-horse mower	5.00
70 ft. inch hose	10.00
Sidewalk building outfit.....	4.00
1 lot sewer jacks	5.00
1 roofer	5.00
1 stencil for concrete.....	3.00
3 barley forks	1.50
1 lot fire hose	10.00
1 grindstone	1.00
1 hoe .....	.50
2 stone hammers	3.00
3 snow shovels	3.00
1 spade	1.00
2 old trowels .....	.25
1 steel trowel, creaser and edger.	1.00
3 hatchets	1.50
2 ladders	2.50
2 sand screens	2.00
1 cross-cut saw	2.50
1 bolt cutter	1.00
14 red lanterns	7.00
1 brace and bit.....	1.50
3 levels	1.00
14 grub hoes	6.00
6 scythes and handles	5.00
3 grub hoes	3.00
10 picks	10.00
1 tamper	1.00
1 tar tank on wheels.....	100.00
2 wood tampers, 1 iron tamper...	3.00
3 hand saws	3.00
2 tool boxes	4.00
2 mortar boxes	2.00
3 scoop shovels	3.00
6 street shovels	7.50
1 cement shovel .....	.75
3 paving hammers	2.00
7 crowbars	5.00
3 axes	3.00
1 street toilet	2.00
2 Knowell street scrapers.....	6.00
2 large hose nozzles	2.00
1 rake	1.00
Chisels and plyers	2.50
3 pair rubber boots.....	9.00
1 wagon jack	5.00
2 post hole diggers.....	1.00
2 pitch forks	1.00
1 gasoline engine pump	\$ 375.00

Total \$13,478.50

INVENTORY—BLDG. MATERIAL—

28 bbls. pitch	\$140.00
3500 No. 1 paving block @ \$22.78	

per M	79.73	
9 ft. 30" tile	\$ 64.80	
One 24" elbow	36.00	
One 15" elbow	14.40	
4 ft. 15" tile	7.20	
15 10" elbows and T's.....	63.00	
One 18" elbow	20.00	
34 ft. 10 " tile	35.70	
18 ft. 12" tile	24.30	
300 ft. 8" tile	210.00	
18 12" Y's and T's.....	97.20	
60 ft. 8" tile 3-ft. long.....	42.00	
<hr/>		
Total	\$614.60	
Less 65%	\$399.49	215.11
1300 ft. 3" plank @ \$50.00 per M....		65.00
960 ft. 4" plank @ \$35.00 per M.....		33.60
<hr/>		
Total	\$533.44	

Grand total\$14,011.94
 Correct: A. J. PAUL, Street Commissioner.

Report of Acting Marshal for month of January, and annual report of Board of Public Works, comprising the annual reports of City Engineer and Street Commissioner, received and ordered to take usual course.

Dr. John A. Wessinger, Health Officer, made oral report of dumping grounds available, and informed Council that the ordinance prohibiting the keeping of pigs within the city would be enforced.

A communication was presented from J. S. Flanders, Sturgis, Mich., relative to proposed bill before the Legislature, which, if passed, would place on the tax rolls all municipally owned property situate outside the corporate limits.

Moved by Ald. Lutz, that the matter be referred to Mayor Wurster, Pres. Reichert, City Attorney DeVine and Ald. Sink with power to act.

Adopted by the following vote: Yeas, Ald. Sugden, Huss, Mayer, Henderson, Prochnow, Markey, Donnelly, Hauser, Spathelf, Freeman, MacGregor, Lutz, Pres. Reichert, 13. Nays, none.

By Ald. Huss: Resolved, that the time for collecting taxes be and is hereby extended to February 8th, 1919.

Adopted by the following vote: Yeas, Ald. Sugden, Huss, Mayer, Henderson, Prochnow, Markey, Donnelly, Hauser, Spathelf, Freeman, MacGregor, Lutz, Pres. Reichert, 13. Nays, none.

Charter Amendments Proposed.

By Ald. Lutz: Resolved, that section 51 of the Charter of the City of Ann Arbor be and the same is hereby amended to read as follows:

Section 51. The City Clerk shall keep the corporate seal and all the

documents, official bonds, papers, files and records of the city, not by this act or by the ordinances of the city entrusted to some other officer; he shall be clerk of the Common Council, shall attend its meetings, record all its proceedings, ordinances and resolutions, and shall countersign and register all licenses granted and report the same with the amount thereof to the Common Council monthly; he shall, when required, make and certify, under seal of the city, copies of the papers and records filed and kept in his office, and such copies shall be evidence in all places of the matters therein contained to the same extent as the original would be. He shall possess and exercise the powers and duties of township clerk so far as the same are required to be performed within the city, and shall have authority to administer oaths and affirmations. The City Clerk may, subject to the approval of the Common Council, appoint a deputy, and such deputy may perform any and all the duties of such clerk.

Adopted by the following vote: Yeas, Ald. Sugden, Huss, Mayer, Henderson, Prochnow, Markey, Donnelly, Hauser, Spathelf, Freeman, MacGregor, Lutz, Pres. Reichert, 13. Nays, none.

By Ald. Lutz: Resolved, that section 69 of the charter of the City of Ann Arbor be and the same is hereby amended to read as follows:

Section 69. The officers and employes of said corporation shall be entitled to receive out of the city treasury such compensation as the Common Council shall allow. The Mayor, City Clerk, City Assessor, City Treasurer, City Attorney, Marshal and Health Officer may appoint, subject to the approval of the Common Council, such assistants under them as are required for the proper and prompt performance of the duties of the several offices. The Treasurer shall keep an exact account of all fees allowed by law, the collection of which is provided for in section 184 of this charter, and it shall be his duty to collect the same, and when so collected, he shall credit the same to the contingent fund, and he shall likewise account for all fees provided for collecting the taxes to be levied and collected in the said city and credit the same to the contingent fund. The justices of the peace and constables shall be allowed the same fees as are by law allowed to corresponding town-

ship officers; members of the Common Council shall serve without pay, excepting for services on boards of review, election boards and boards of registration, for which services they shall receive payment of five dollars per day; supervisors and all other officers of said city shall be entitled to receive such compensation as the Common Council shall allow, not exceeding \$4.00 per day for every day actually employed in the performance of the duties of their respective offices.

Adopted by the following vote: Yeas, Ald. Sugden, Huss, Mayer, Henderson, Prochnow, Markey, Donnelly, Hauser, Spathelf, Freeman, MacGregor, Lutz, Pres. Reichert, 13. Nays, none.

By Ald. Lutz: Resolved, that section 161 of the Charter of the City of Ann Arbor be and the same is hereby amended to read as follows:

Section 161. There shall be a board of health in said city which shall consist of three members, one of whom shall be a competent physician; they shall be appointed by the Mayor, by and with the consent of the Common Council, for the full term of three years: but the members shall be subject to classification in such manner that one term shall expire each year; one of the members of said board, in addition to the powers and duties incumbent upon him as a member of said board, shall be city health officer and shall exercise such powers and duties as shall be from time to time conferred upon him by said board of health and the Common Council of said city. Said city health officer shall in all cases be a competent physician and the mayor shall designate which of the members of said board shall be city health officer, and such member of the board of health shall continue to discharge the duties of city health officer during the term for which he was appointed as a member of said board. Such city health officer shall be executive officer of the board of health, shall perform such duties of inspection as may be necessary for the information and guidance of said board and shall do the work of fumigating in all cases where it is necessary for it to be done within said city. The members of the said board of health shall receive such compensation as the Common Council may allow.

Adopted by the following vote: Yeas, Ald. Sugden, Huss, Mayer, Henderson, Prochnow, Markey, Don-

Nelly, Hauser, Spathelf, Freeman, MacGregor, Lutz, Pres. Reichert, 13. Nays, none.

By Ald. Freeman: "Whereas, the Workmen's Compensation law of Michigan provides that each city in the state is subject to the provisions of said Act; and that each incorporated Public Board or Public Commission in the city is likewise subject to the provisions of the Act as a part of the city; and that it is the duty of the city to make a record of all accidents occurring to the employes of the city and of all the departments of the City Government; and to report all accidents to the Industrial Accident Board within ten days after they occur and thereafter in accordance with the rules of the Industrial Accident Board; and to pay employes of the city and of all the Public Boards, Commissions and Departments of the city who are injured in the course of their employment, workmen's compensation in accordance with said law, and

Whereas, the law imposes upon the Common Council of the city of Ann Arbor, the duty of seeing that the city and all of its Public Boards, Commissions and Departments comply with the requirements of the said Workmen's Compensation law, and

Whereas, in the judgment of the Common Council of the said city of Ann Arbor, it is necessary, in order that this work shall be systematically done, that each and all of the Boards, Commissions and Departments of the city shall report all accidents and injuries occurring to its employes, to some central authority in the city, which central authority shall report all said accidents to the Industrial Accident Board in compliance with the laws and rules of the Board, and look after the making of agreements with the injured employes and the payment of workmen's compensation to them, therefore

Be It Resolved by the Common Council of the city of Ann Arbor, that the City Clerk of the said city shall be and he is hereby constituted the agent of the city of Ann Arbor, and of all the Boards, Commissions and Departments of said city, for the purpose of investigating the injuries and accidents that may occur to all employes of the said city and of the various Boards, Commissions and Departments thereof; and for the purpose of reporting all such accidents to the Industrial Accident Board in compliance with the law of the state and

the rules of the Board; and for the purpose of making proper agreements with all injured employes; and for the purpose of looking after the payment of workmen's compensation to all employes entitled to the same, and

Be it Further Resolved, that the Boards, Commissions and Superintendents and persons in charge of each and all of the Departments of the city shall immediately report all accidents and injuries occurring to employes to the City Clerk on the same day upon which such accidents and injuries shall occur; and that the City Clerk upon such reports being made to him shall immediately investigate all the facts with reference to such accidents and make complete records of the same in a book to be procured by him for that purpose, and that he shall report all accidents to the Industrial Accident Board; shall look after the making of agreements with the injured employes; and the payment of compensation that may become due to them, and

Be It Further Resolved, that the said City Clerk shall from time to time make a report to the Common Council showing in detail the accidents that have occurred to employes of the city and of each and all of the various Boards, Commissions and Departments of the city; what action has been taken regarding each accident; and the amount of compensation that has become due and been paid to injured employes, and

Be It Further Resolved, that in performing the services required by this resolution, the City Clerk shall be aided by the Boards, Superintendents and other persons in charge of the various departments of the city, as to all of the accidents and injuries occurring to employes of their respective departments."

Adopted by the following vote:
Yeas, Ald. Sugden, Huss, Mayer, Henderson, Prochnow, Markey, Donnelly, Hauser, Spathelf, Freeman, MacGregor, Lutz, Pres. Reichert, 13.
Nays, none.

By Ald. Freeman: Resolved, that the sum of \$600.00 appropriated by this body under date of October 7th, 1918, for the purpose of maintaining a rest room in the basement of the Court House, be and the same is hereby re-appropriated to be used for said purpose, at a rest room at the corner of William and Main sts., known as the Feiner house.

Adopted by the following vote:
Yeas, Ald. Sugden, Huss, Mayer, Henderson, Prochnow, Markey, Donnelly, Hauser, Spathelf, Freeman, MacGregor, Lutz, Pres. Reichert, 13.
Nays, none.

Mr. E. T. Cope, district agent Detroit Edison Co., addressed Council relative to proposed lighting system, and announced that the company would submit a proposal at next meeting of Council.

Moved by Ald. Freeman, that the building on E. University ave., owned by the city and formerly used as fire department station and known as Engine House No. 2, be and the same is hereby designated as the polling place and registration place for the Sixth ward.

Adopted by the following vote:
Yeas, Ald. Sugden, Huss, Mayer, Henderson, Prochnow, Markey, Donnelly, Hauser, Spathelf, Freeman, MacGregor, Lutz, Pres. Reichert, 13.
Nays, none.

On motion of Ald. Lutz Council adjourned.

ISAAC G. REYNOLDS,
City Clerk.