

pressure on pumps by about ten pounds. Year by year, as the consumption increased, the pressure would increase.

We estimate the cost of the above described force main as follows:

(19) 36-inch main from Pumping Station to Ottawa street, 11,200 feet; 36-inch on Ottawa street to Barton street, 1,700 feet, at \$10.00 . . . . .	\$129,000 00
(20) 30-inch on Ottawa street, from Barton to Cannon streets, 1,500 feet; thence westerly along Cannon, Senator and Wilson streets, 12,300 feet, at \$7.50 . . . . .	111,000 00
(21) 24-inch main on Catherine street and Charlton avenue, 6,000 feet, at \$5.75 . . . . .	34,500 00
(22) Contingencies, 5 per cent. . . . .	13,500 00
(23) Engineering and superintendence, 3 per cent. . . . .	8,000 00
<b>Total . . . . .</b>	<b>\$296,000 00</b>

This new force main, with the Catherine street and Charlton avenue branches, will practically duplicate the capacity of the three existing force mains.

For some years there will be an extension of the Sewerage System in the eastern part of the City, necessitating tunnelling under or excavating near the existing force mains, at some points in rock.

Notwithstanding the fact that all precautions may be taken to prevent accidents, there is a possibility of such occurring. The proposed new main laid along an independent route, more or less remote from the existing mains, would ensure a proper service if one or more of the present mains were broken or seriously damaged.

**Submains.** To improve the fire service in the central part of the City, and to provide a domestic supply to the rapidly growing southwestern suburbs, we would recommend that the following submains be laid:

(a) Lottridge street, from Senator street to King street, 20-inch . . . . .	300 ft.
(b) Gore street, from Catharine street to James st., 18-inch . . . . .	1,200 ft.
Vine street, from James street to Bay st., 18-inch . . . . .	1,300 ft.
(c) Main street west, from King street to Queen street, 20-inch . . . . .	4,300 ft.
(d) Markland street, from James street to Queen street, 16-inch . . . . .	2,700 ft.
<b>Total length of proposed submains . . . . .</b>	<b>9,800 ft.</b>

We estimate the cost of these proposed submains as follows:

(24) Lottridge street, 300 ft. of 20-inch, at \$6.00 . . . . .	\$ 1,800 00
(25) Gore and Vine streets, 2,500 ft. of 18-inch, at \$3.75 . . . . .	9,375 00
(26) Main street west, 4,300 ft. of 20-inch, at \$4.50 . . . . .	19,350 00
(27) Markland street, 2,700 ft. of 16-inch, at \$3.00 . . . . .	8,100 00
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	38,625 00
(29) Contingencies, 5 per cent. . . . .	1,875 00
(30) Engineering and Superintendence, 3 per cent. . . . .	1,500 00
<b>Total . . . . .</b>	<b>\$42,000 00</b>