

CITY OF CAMBRIDGE

MASSACHUSETTS

WATER DEPARTMENT

250 FRESH POND PARKWAY

CAMBRIDGE, MASS. 02138

Michael A. Nicoloro
Managing Director

617-349-4770

May 20, 1994

Mr. Robert W. Healy
City Manager
Cambridge City Hall
795 Mass. Ave.
Cambridge, MA 02139

**RE: REPORT ON PROBABLE CAUSES OF WATER LINE BREAK ON
PEMBERTON STREET - COUNCIL ORDER #23 DATED 4/11/94**

Dear Mr. Healy:

With reference to Council Order #23 dated 4/11/94 concerning probable causes of the water line leak on Pemberton Street, I offer the following response.

The probable cause of failure was more than likely attributed to the age of the service. This 3/4" lead service was installed in 1912, thus making it approximately 82 years old. The approximate useful life of a service, by industry standards, is 40 years. Given the depth of the service, which was 4 to 5 feet, and considering the soil conditions in and around the service, it is unlikely that this line rupture was attributed to the weight of truck loading. Since water lines in general are designed to be below the frost line, this design consideration for depth discounts the likelihood for there to be any history or potential for water line ruptures to be caused by heavy trucking. The load imposed by the weight of a heavy truck is cushioned and distributed by the pavement and then by the soil overburden. Consequently, the loads from the trucks are not likely to induce a level of stress great enough to fail a water service.

Of note, the failure occurred on 3/31/94 and was promptly repaired on the date of discovery by the CWD. The cost for the work was \$500 and it was paid in advance by the Portland Stone Company. Please advise if you require further information or assistance with this matter.

Sincerely,

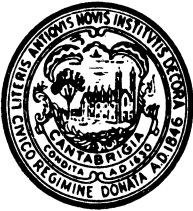
Michael A. Nicoloro P.E.

Michael A. Nicoloro, P.E.
Managing Director

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OFFICE OF THE CITY MANAGER



EXECUTIVE DEPARTMENT
ROBERT W. HEALY
City Manager

RICHARD C. ROSSI
Deputy City Manager

CITY OF CAMBRIDGE
CAMBRIDGE, MASSACHUSETTS 02139

TEL. 349-4300
FAX. 349-4307

June 6, 1994

To The Honorable, The City Council:

Please find attached a response to Awaiting Report Item No. 15, regarding a report on the probable causes of the water line break on Pemberton Street, received from Michael A. Nicoloro, Managing Director of the Cambridge Water Department.

Very truly yours,

Robert W. Healy
City Manager

RWH/mev
attachment

Consent Agenda # 7

S-271

Response to Awaiting Report Item Number
Fifteen regarding a report on the probable
causes of the water line break on
Pemberton Street.

*per original order
see 1994 City Manager
Requests # 113.*

In City Council,

June 6, 1994

Placed in file