

REGIONAL MUNICIPALITY OF OTTAWA-CARLETON
 MUNICIPALITÉ RÉGIONALE D'OTTAWA-CARLETON

MEMORANDUM
NOTE DE SERVICE

Our File/N/Réf.
 Your File/V/Réf.

DATE 21 March 1997

TO/DEST. The Chair and Members of Council

FROM/EXP. Environment and Transportation Commissioner

SUBJECT/OBJET **1997 WATER DISTRIBUTION SYSTEM
 REHABILITATION PROGRAMME**

This report outlines the elements and scope of work included in the 1997 Water Distribution System Rehabilitation Programme. The programme is an ongoing annual programme and was approved in the 1997 Capital Budget on 26 February 1997.

INTRODUCTION

The Region's water distribution system consists of approximately 2350 kms of watermains of which approximately 300 kms are over 50 years old. The replacement value of this system is in excess of \$1.5B. This programme recommends annual projects based on:

- Watermain breaks and operational performance.
- Hydraulic performance.
- Co-ordination of road and sewer works with other agencies.

The 1997 scope of works are as outlined in Appendices A, B and C:

Appendix A: 1997 Co-ordinated Watermain Rehabilitation

Appendix B: 1997 Pro-active Watermain Rehabilitation

These parts of the programme involve the replacement, rehabilitation and cathodic protection of watermains and services which, for example, are of:

- Excessive age (typical life expectancy 70 to 80 years)
- Insufficient size (present minimum standard size is 150 mm)
- Insufficient depth of cover (present standard is 2.4 metres)
- Excessive break rate
- Lead services (present standard is copper)
- Low flow capability

- System improvement

All locations are fully co-ordinated with other agencies and area municipalities. It is considered necessary to proceed with co-ordinated programme locations, as the area municipalities will be reconstructing roadways and replacing sewers. Experience has shown that when a road is reconstructed and the watermains and services are not replaced at the same time, the watermains and services are put at a higher risk of freezing and breakage. It is unlikely that such an opportunity will occur again for another 50 years. It is also considered necessary to proceed with the proactive programme now due to high break rates and/or low flow capability. Also included in this component of the programme are items to address needs for 1998 pre-engineering and cathodic protection (i.e. corrosion protection) through the installation of anodes, as well as a watermain on Merivale Road for system improvement of an expanded pressure boundary.

Appendix C: 1997 Intersection Improvements

This part of the programme involves minor water system requirements such as the installation of new water valves; the replacement, relocation and refurbishment of existing hydrants; interconnection of watermains and abandonment of out of date system components. These installations are handled by staff of the Water Division of the Environment and Transportation Department.

For all the foregoing work, the setting of priorities involves an iterative process, with locations being revised as the priorities of other agencies are finalized.

CONSULTATION

This programme falls under the Schedule 'A' category of the Class Environmental Assessment process as defined through the Environmental Assessment Act. Consultation with area municipalities has taken place in developing the programme.

EXPENDITURE JUSTIFICATION

The 1997 Water Distribution System Rehabilitation Programme is fully co-ordinated with programmes and needs as outlined by the area municipalities, the National Capital Commission, Public Works and Government Services Canada and the 'Urban Rehabilitation Programme'.

FINANCIAL IMPLICATIONS

All the 1997 scope of works can be accommodated within the approved 1997 Capital Budget allocation of \$9.55M. Subsidies, for the 1997 programme, from the Ministry of the Environment and Energy (MOEE) and the Ontario Clean Water Agency (OCWA) are not available.

*Approved by D. Brousseau
on behalf of
M.J.E. Sheflin, P.Eng.*