

Watermain Condition Coding/Classification, Grading and Renewal

PRESENTED BY: **CENTRE FOR ADVANCEMENT OF TRENCHLESS TECHNOLOGIES (CATT)**

February 9, 2017 | Mississauga Grand, Mississauga



Thursday February 9, 2017

8:00AM - 4:00PM

**BREAKFAST, LUNCH AND REFRESHMENTS
INCLUDED**

MISSISSAUGA GRAND
35 Brunel Road, Mississauga

WORKSHOP OVERVIEW

Standard defect coding, condition classification, and condition grading protocols exist for wastewater, oil and gas pipelines. However, no standard condition classification and condition grading system for water distribution pipelines. This workshop will present various components of a standard watermain condition coding/classification and grading framework. This will include common nomenclature and codes for documenting and reporting of anomalies, defects, failure modes, and construction features for water pipe. The workshop will also present engineering behaviour, failure modes and mechanisms for various types of watermain materials. Furthermore, various types of structural and non-structural renovation techniques for watermains will be presented.

Tentative Schedule

8:00 – 8:30 | **REGISTRATION & CONTINENTAL BREAKFAST**

8:30 – 8:40 | **WELCOME AND INTRODUCTION**

Mark Knight, University of Waterloo

8:40 – 9:30 | **INTRODUCTION TO WATERMAIN CONDITION CODING/CLASSIFICATION, GRADING AND RENEWAL FRAMEWORK**

Rizwan Younis, University of Waterloo

9:30 – 10:15 | **WATER DISTRIBUTION PIPE INVENTORY: PIPE MATERIALS AND THEIR ENGINEERING BEHAVIOR**

Mark Knight, University of Waterloo

10:15 – 10:30 | **REFRESHMENT AND NETWORKING BREAK**

10:30 – 11:00 | **COMMON FAILURE CAUSES, MECHANISMS, AND MODES FOR METALLIC, PLASTIC AND AC WATERMAINS**

Rizwan Younis, University of Waterloo

11:00 – 11:30 | **PIPE PRIORITIZATION FOR CONDITION ASSESSMENT**

Rizwan Younis, University of Waterloo

11:30 – 12:00 | **WATERMAIN CONDITION ASSESSMENT TECHNIQUES**

Rizwan Younis, University of Waterloo

12:00– 12:45 | **LUNCH**

1245 – 13:30 | **WATERMAIN CONDITION CODING/CLASSIFICATION SYSTEM**

Rizwan Younis, University of Waterloo

13:30 – 14:15 | **ESTIMATING REMAINING SERVICE LIFE AND CONDITION GRADING OF WATERMAINS**

Rizwan Younis, University of Waterloo

14:15 – 14:30 | **REFRESHMENT AND NETWORKING BREAK**

14:30– 15:00 | **WATERMAIN MAINTENANCE, RENOVATION AND REPLACEMENT PLANNING**

Rizwan Younis, University of Waterloo

15:00 – 15:45 | **WATERMAIN RENOVATION USING POLYUREA, CIPP AND OTHER LINING SYSTEMS**

Mark Knight, University of Waterloo

15:15 – 16:00 | **CLOSING REMARKS**

Mark Knight, University of Waterloo

WHO SHOULD ATTEND THE

WORKSHOP? Municipal engineers, technologists, technicians, operators, engineering consultants, contractors, suppliers, and pipe manufacturers

WHAT IS INCLUDED?

- Course material
- Breakfast, Lunch, and Refreshment during networking breaks
- 0.7 CEU's

UNIVERSITY OF
WATERLOO

Registration Form

Watermain Condition Coding/Classification, Grading and Renewal

Thursday February 9, 2017, Mississauga Grand, Mississauga



UPCOMING CATT EVENTS

MICROTUNNELING
FEB 16-2017

WATERMAIN DEFECT CODING, CONDITION
GRADING AND RENOVATION TRENCHLESS
MAR 09-2017

TRENCHLESS TECHNOLOGIES 101
MAR 22-23 - 2017

NAME: _____

TITLE: _____

COMPANY: _____

ADDRESS: _____

CITY: _____

PROV: _____

POSTAL CODE: _____

PHONE: _____

EMAIL: _____

EARLY BIRD REGISTRATION

RECEIVED BY: **January 6**

\$375/CATT MEMBER

\$550/NON-MEMBER

REGULAR REGISTRATION

RECEIVED: **January 6 TO February 6**

\$475/CATT MEMBER

\$650/NON-MEMBER

ON-SITE REGISTRATION

RECEIVED AFTER: **February 6**

\$575/CATT MEMBER

\$750/NON-MEMBER

Tax (HST 13%) \$ _____ Total \$ _____

METHOD OF PAYMENT - PLEASE PICK ONE

INVOICE COMPANY

CREDIT CARD (MasterCard, VISA, American Express)

CARD #:

EXP: /

NAME ON CARD:

CVC:

CHEQUE (Payable to "University of Waterloo, Attn: Centre for Advancement of Trenchless Technologies")

COMPLETED REGISTRATION FORMS CAN BE FAXED TO (519) 746 6556 OR MAILED to Alice Seviara:

MAIL: CENTRE FOR ADVANCEMENT OF TRENCHLESS TECHNOLOGIES
Department of Civil and Environmental Engineering
University of Waterloo, Waterloo, ON N2L 3G1
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Note: To prevent fraud never send credit card information via email.

Refund Policy: please visit www.catt.ca for details on CATT's refund policy.

THE CENTRE FOR ADVANCEMENT OF TRENCHLESS TECHNOLOGIES

(CATT) was established in 1994 to help municipalities address their buried infrastructure challenges

using new and less disruptive trenchless construction methods and infrastructure asset management practices.

Since 1994 CATT has been recognized as an international leader in buried infrastructure construction, condition assessment, renovation and asset management.

For more information on CATT and member benefits visit www.catt.ca.

PLATINUM MEMBERS



GOLD MEMBERS

