

The Northern California Pipe Users Group (PUG) and the North American Society for Trenchless Technologies (NASTT) are pleased to offer a special one-day training course on:

NASTT's

Introduction to Trenchless Technology - Rehabilitation Introduction to Trenchless Technology - New Installations

Held on:
Thursday, October 17th, 2019
8:00 a.m. to 5:00 p.m.

At the office of:
East Bay Municipal Utility District (EBMUD)
375 11th Street, Oakland, CA 94607

General Course Information:

Description

The Northern California Pipe Users Group (PUG) and the North American Society of Trenchless Technologies (NASTT) are pleased to offer NASTT's Introduction to Trenchless Technology Rehabilitation Good Practices and Introduction to Trenchless Technology New Installations Good Practices Courses.

These introductory short courses (4 hours each) are ideally suited for both newcomers to the industry and for anyone who is interested in seeking a refresher course on trenchless technology methods. Both the rehabilitation and new installation courses provide an overview of the methods available to public works and utilities to rehabilitate or install water and sewer systems with minimal excavation. Continuing Education Units (CEUs) are offered for attendee participation and copies of NASTT's publications on New Installations and Introduction to Rehabilitation Methods will be available for purchase in advance of the trainings.

Introduction to Trenchless Technology - Rehabilitation

This introductory course is ideally suited for both newcomers to the industry and for anyone who is interested in seeking a refresher course on trenchless technology methods. The rehabilitation section provides an overview of the methods available to public works and utilities to rehabilitate water and sewer systems with minimal excavation.

Introduction to Trenchless Technology - New Installations

The NASTT New Installation Methods Good Practices Course is geared to address numerous trenchless methods commonly used in North America to install new pipe and conduit. This will include: auger boring, pipe ramming, pipe jacking and pilot tube methods.



Course Instructors:

NASTT's: Introduction to Trenchless Technology - New Installations

Brian Avon, PE

Brian is the Associate Vice President at Carollo Engineers. Previously he was the Senior Pipelines Engineer at Golder Associates and has over 12 years experience in the trenchless industry. He earned his B.S. in Business Administration and Management from the University of Southern California. Brian is the Chair of the Western Chapter of NASTT, serves on NASTT's Program Committee and Auction Committee and is a Track Leader for the NASTT No-Dig Show.

Matthew Wallin, PE

Matthew received his Bachelor's and Master's Degrees in Geotechnical Engineering from Case Western Reserve University in Cleveland, Ohio. He is a Partner and Senior Project Manager at Bennett Trenchless Engineers, an engineering firm which focuses 100% on new trenchless pipeline design and construction management. Matthew serves on NASTT's No-Dig Show Program Committee, is a Technical Program Track Leader, and serves as Officer At Large on the NASTT Board of Directors. He teaches our Horizontal Directional Drilling (HDD) Course and our Introduction to New Installations Course.

NASTT's: Introduction to Trenchless Technology - Rehabilitation

Jennifer Glynn, PE

Jen is a Senior Technical Practice Lead and Associate Principal for Woodard & Curran out of their Walnut Creek, California office. She has over 23 years of experience in Project Management and Infrastructure Design, with an expertise in Condition Assessment and Trenchless Rehabilitation. Jen has been authoring papers and presenting at conferences both domestically and internationally for the past 19 years. She is a past Executive Board Member for NASTT and is currently on the Board of Directors for their Western Chapter. She is also a member of the AWWA Water Main Rehabilitation Standards Committee.

Cindy Preuss, PE

Cindy earned her B.S. in Civil and Environmental Engineering from the University of California, Berkeley. She was the 2019 No-Dig Show Program Chair and is the current Past-Chair of the Western Chapter (WESTT) of NASTT. Cindy teaches our Trenchless Pipeline Rehabilitation and New Installations Short Courses, and is the trenchless lead at HydroScience Engineers.

Morning Session

Introduction to Trenchless Technology - *Rehabilitation*

CHECK-IN & REGISTRATION 7:30 AM.

8:00 - 8:30 AM Rehabilitation Project Planning

- Industry Concerns
- Why the Demand
- Pipeline Assessment- Sewer
- CCTV Inspection
- Advanced Inspection Technologies
- Pipeline Assessment-Water

8:30 - 9:45 AM Watermain Rehabilitation

- Cement Mortar Lining
- Polymer Lining
- CIPP Lining
- Internal Joint Seals
- Fiber Reinforced Polymers
- Sliplining
- Symmetrical Reduction
- Fold and Form
- Pipe Bursting

9:45 - 10:00 AM BREAK

10:00 - 11:30 AM Sewer Rehabilitation

- Chemical Grouting
- Sliplining
- CIPP
- Close fitting Liner
- PVC Spiral Wound
- Pipe Bursting
- Pipe Reaming
- Panel Liners
- Spray On Liners
- Point Repair
- Lateral Liners
- Manhole Rehabilitation

11:30 - 12:00 PM Q&A and Course Evaluations

12:00 - 1:00 PM Lunch Break

Afternoon Session

Introduction to Trenchless Technology - *New Installations*

1:00 PM Opening Remarks & Introductions

1:10 PM **Module 1:** Introduction to New Installation Methods

1:30 PM **Module 2:** Horizontal Directional Drilling

2:00 PM **Module 3:** Piercing and Pipe Ramming

2:45 PM BREAK

3:00 PM **Module 4:** Auger Boring and Pilot Tube Microtunneling

3:45 PM **Module 5:** Open-Shield Pipe Jacking, Microtunneling, and Earth Pressure Balance

4:15 PM **Module 6:** Summary

4:50 PM Q&A, Course Evaluations and Wrap-up

5:00 PM Course Adjourn

Presented by:



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Introduction to Trenchless Technology - Rehabilitation

Introduction to Trenchless Technology - New Installations

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At the office of:
East Bay Municipal Utility District (EBMUD)
375 11th Street, Oakland, CA 94607

Earn Continuing Education Units (CEUs) for your participation!
CEUs are an additional \$13

Breakfast and Lunch will be provided.



REGISTRATION INFORMATION

Date: October 17, 2019
Time: 8 am to 5 pm
Location: East Bay Municipal Utility District Office
375 11th Street, Oakland, CA 94607

REGISTRATION OPTIONS

- Course Registration only - \$250 (\$300 for non-members)
- Course Registration with NASTT New Installation Methods Good Practices Publication - \$300 (\$350 for non-members)
- Course Registration with Intro to Rehabilitation Methods Good Practices Publication - \$300 (\$350 for non-members)
- Course Registration with both Publications - \$350 (\$400 for non-members)
- CEUs - \$13 additional cost

REGISTRATION: Registration closes October 4, 2019.

To register for this course, please complete the Google Registration Form at the link below:

<https://forms.gle/ahuwPtrascAi1qdQ7>

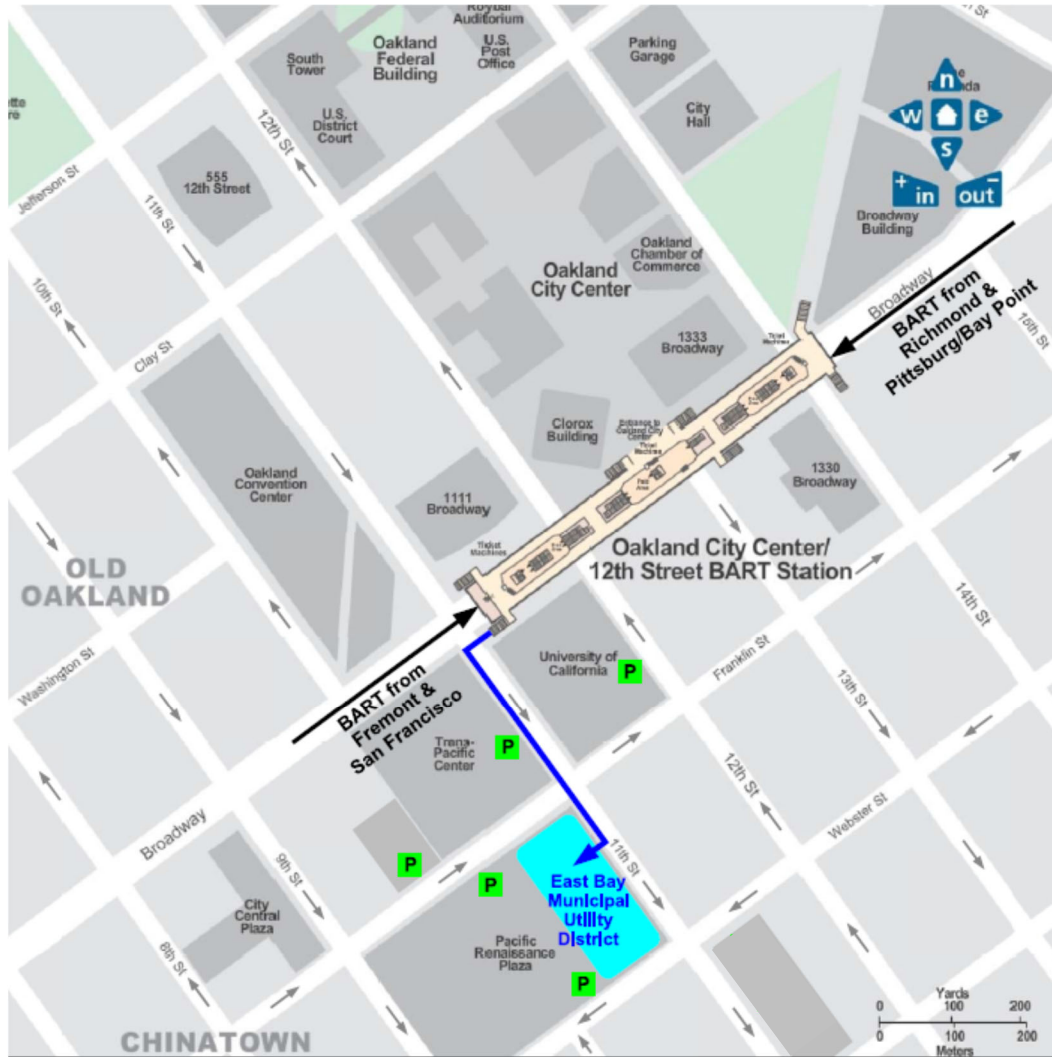
PAYMENT

Payment can be made via PayPal or check. To pay by PayPal, please visit:

<https://norcalpug.com/calendar/workshops-training/>

To pay by check, please make check payable to "Pipe Users Group" and mail checks to Iris Uresti:
Brown and Caldwell
202 Cousteau Pl, Ste 175
Davis, CA 95618-7761

Directions to EBMUD



From the South: Fremont, Union City, Hayward areas
Take I-880 NORTH toward OAKLAND.
Merge onto I-880 N. Take the BROADWAY exit toward DOWNTOWN.
Keep RIGHT at the fork in the ramp. Merge onto BROADWAY.
Turn RIGHT onto 11TH ST.

From the East: Concord, Walnut Creek, Orinda areas
Take CA-24 WEST toward OAKLAND/LAFAYETTE.
Merge onto CA-24 W. CA-24 W becomes I-980 W.
Take the 12TH STREET exit. Turn LEFT onto 11TH ST.

From the North: Hercules, Pinole, El Cerrito, Richmond areas
Take I-80 W/I-580 E.
Stay straight to go onto I-580 E.
Take I-580 EAST RAMP toward DOWNTOWN OAKLAND/HAYWARD/STOCKTON.
Merge onto I-580 E. Take I-980 WEST RAMP toward DOWNTOWN OAKLAND.
Merge onto I-980 W. Take the 12TH STREET exit. Turn LEFT onto 11TH ST.

The Oakland 12th Street BART station is one block away.
EBMUD Parking Garage will not be available for use.