Underground Construction Technology International Conference& Exhibition 2013

(UCT 2013)

Houston, Texas, USA 29-31 January 2013

Volume 1 of 2

ISBN: 978-1-63266-848-6

Printed from e-media with permission by:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2013) by Oildom Publishing Company of Texas Inc. All rights reserved.

Printed by Curran Associates, Inc. (2014)

For permission requests, please contact Oildom Publishing Company of Texas Inc. at the address below.

Oildom Publishing Company of Texas Inc. PO Box 941669 Houston, Texas 77094-8669

Phone: (281) 558-6930 Fax: (281) 558-7029

oklinger@oildompublishing.com

Additional copies of this publication are available from:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571 USA

Phone: 845-758-0400 Fax: 845-758-2634

Email: curran@proceedings.com Web: www.proceedings.com

Tuesday, January 29

Track I

TUTORIALS: INTRODUCTION TO SEWER & WATER REHAB TECHNOLOGIES

Chemical Root Control: Engineered For Engineers & Asset Management"%

Brian Conroy, Western Regional Manager, Duke's Root Control

Cured-In-Place-Pipe B#5

Denise McClanahan, Vice President, Layne Inliner

Lateral Lining %+

Dave McArthur, Product Manager, Maxliner

Sliplining Rehabilitation of Large Diameter Sewers") (

Rick Turkopp, Vice President-Engineering, Hobas Pipe USA

CIPP Sectional Lining"),

Larry Kiest, Jr., President, LMK Technologies

Grout-In-Place Lining"* -

Mike Spero, President, Danby

Internal Joint Seals "%5*

Terry Bell, Weko-Seal Product Manager, Miller Pipeline

Track II-A SEWER CONSTRUCTION & REHABILITATION

Keynote Session: Contractor Panel – Unrealistic Expectations In Trying Times 'B#5

Patrick Mann, General Manager, BorTunCo Atul Raj, President, Pepper-Lawson Waterworks Gary Brown, Project Manager, Granite Construction Co.

Identifying An Appropriate Rehab Strategy "%)

Lauren Kubin, PE, Professional Engineer, North Texas Municipal Water District Walter Norwood, PE, Senior Project Manager, Lockwood, Andrews & Newnam

Challenges Of Designing & Constructing Large Diameter Utilities In An Urban Environment "% &

Norm Prima, PE, Senior Project Manager, Parsons Seneca House, PE, Senior Structural Project Engineer, Parsons

Wastewater Tunnel Hydraulics And Combination Drop/Access Manhole Design "%"

Eric Dawson, PE, Project Manager, Parsons

Revisions To The California Pickle Jar Test B#5

Kent Welling, Civil Engineering Associate III, Wastewater Conveyance Engineering Div., City of Los Angeles-Bureau of Engineering

Funding Challenges In DC Water & The Importance Of The Water/Wastewater Industry B#5 George Hawkins, General Manager, DC Water

Track II-B

SEWER CONSTRUCTION & REHABILITATION

Air Valve Design Prevents Corrosion In Pressure Pipelines, Saves Energy "% & Joel Sheinfeld, President, ARI USA

Completing The Challenging St. Louis MSD Lemay Tunnel "%+

Brent Duncan, PE, Tunnel Engineer, SAK Construction

Dallas Water Utilities Ferris Branch Interceptor Relocation "8\$\$

Thelma Flores Box, PE, Vice President, BDS Technologies Joe Felipe, PE, Senior Project Manager, Dallas Water Utilities Michael Warren, Construction Inspector, Dallas Water Utilities

An Owner's Perspective Of Pipe Inspection In Miami-Dade County "8%+

Rod Lovett, Chief of Wastewater Collection & Transmission Line Div., Miami-Dade Water & Sewer Dept.

Performance Investigation Of Different Large Diameter Water Pipe Materials * "&((

Ameya Paradkar, Graduate Student, CUIRE-University of Texas at Arlington

Developing A Framework For GIS-Based Decision Support Systems "&*(

Lindsay Jenkins, E.I., Graduate Research Student, Dept. of Civil & Environmental Engineering-Vanderbilt University

Track III

NASTT'S TRENCHLESS TECHNOLOGY FORUM

Presented by the North American Society for Trenchless Technology

CIPP For Pressure Pipe 'B#5

Jennifer Glynn, PE, NASTT Board Member, Senior Project Manager, RMC Water and Environment George Ragula, Distribution Technology Manager, Public Service Electric & Gas, NASTT Chair Ben Côté, Aqua-Pipe Vice President, Sanexen Environmental Services, NASTT Treasurer Jamie Hannam, MBA, PE, Director-Engineering & IS, Halifax Water, NASTT Board Member Tom Hayes, President, Haywood Associates

Track IV

PIPELINING ISSUES & REHABILITATION

Investigation & Assessment Of The Oakland Macomb Interceptor System '& \$

Harry Price, PE, Senior Principal Engineer, NTH Consultants John Kosnak, PE, Senior Principal Engineer, NTH Consultants

Leakage Stopped After CIPP Pipeline Rehabilitation "&-)

Kristina Kiest, Marketing Director, LMK Technologies **Sahar Hasan**, Civil Engineer, LMK Technologies

Maximizing Financial Resources When Rehabilitating Large Diameter Storm & Sewer Pipes " %%

Steve Henning, Technical Director, IPR

Harnessing Weather & Hydrologic Forecasting To Better Manage A Sewer Rehabilitation Construction Project 'B#5

Wayne Hunter, Project Manager, RPS Group Jean Vieux, President, Vieux & Associates

Hole In One! Carbon Fiber Lining Helps Owner With Challenging Pipeline Repair A /

Anna Pridmore, PhD, Vice President-Water Transmission Div., Fyfe Co.

Design Analysis - Liner Or New Pipe? "),

Norman (Ed) Kampbell, PE, President, Rehabilitation Resource Solutions

Track V-A

PIPE BURSTING: FUNDAMENTALS & ECONOMIC BENEFITS

Presented by the International Pipe Bursting Association (a division of NASSCO)

Pipe Bursting Terms & Classifications" *-

Brian Metcalf, Chair-IPBA, Chief Executive Officer, HammerHead Trenchless Equipment George Mallakis, Vice Chair-IPBA, Regional Manager, TT Technologies

Pipe Bursting – A Green Technology Solution ' - *

Samuel Ariaratnam, PhD, PE, Professor, Ira A. Fulton School of Engr./Del W. Webb School of Construction, Arizona State University

Pipe Bursting Myths & Misconceptions (%

Matt Timberlake, President, Ted Berry Trenchless Technologies Team

Risk Management, Contingency Planning For Contractors And System Owners 'B#5

Matt Timberlake. President. Ted Berry Trenchless Technologies Team

An Engineering Experience Review (''

Gary Smolinski, Construction Manager, Orchard, Hiltz & McCliment Richard (Bo) Botteicher, PE, M.ASCE, Senior Project Manager, Underground Solutions

Track VI-A

WATERWORKS CONFERENCE

Keynote Session: Climate Outlooks And Impacts: Short- And Long-Term Implications For Water Resources 'B#5

David Brown, PhD, Regional Climate Services Director, National Oceanic and Atmospheric Administration

TRA Utilizes Pipeline Condition Assessment To Defer 8.5 Miles Of 30" BWP & PCCP Replacement (()

Andy Dettmer, PhD, PE, Senior Project Manager, Jason Consultants

Public Private Partnerships For Water Infrastructure – Can You Afford The Risk?"((**

Joseph (Bill) Norris, Business Development, Abengoa Water/NRS Consulting Engineers

Track VII-A

HDD OPERATIONS & PROFITABILITY

An Owner's Perspective Of A Record Bore (+%

Grady Bell, Vice President-Business Development, Laney Directional Drilling

Construction Challenges On A Long, Difficult HDD Pipe Crossing In Macon, GA (+-

Ben Whisler, Project Manager, Mears Group

Richard (Bo) Botteicher, PE, M.ASCE, Senior Project Manager, Underground Solutions

Expanding The Boundaries: Unique And Innovative HDD Projects 'B#5

Presented by the Distribution Contractors Association

Topic: Installation of the Ellwood Pipeline (-%

Greg Dahl, Vice President, ARB Inc.

Mike Robirds, PE, President, Accu-Bore Directional Drilling (div. of MDR) Billy Kilmer, COO, Accu-Bore Directional Drilling (div. of MDR)

Topic: Ventura, CA 2,500' Outfall of 36" HDPE pipe 'B#5

Neil Swope, President, The HDD Company

Topic: Laser Midstream 16" Project, Susquehanna County, PA') \$\$

Nicholas Atkin, Vice President, Gabe's Construction

Topic: Record Bore Stretches Almost 11,000 Feet') \$,

Grady Bell, Vice President-Business Development, Laney Directional Drilling

Track VIII-A

HDD: MUD SCHOOLS

Mud School 101') %

Tom Tibor, Senior Account Representative, Baroid Industrial Drilling Products

Track IX-A

DAMAGE PREVENTION & SAFETY CONFERENCE

Regulatory Update') &(

Walt Kelly, Industry Consultant, Walt Kelly Enterprises

How Damage Data Collection Is Helping Protect Buried Facilities") &+

Bob Kipp, President, Common Ground Alliance

OSHA Update/Impacts For Underground Construction B#5

Danezza Quintero, OSHA Directorate of Construction, Dept. of Labor

Elements Of An Effective Safety Training Program"))-

James McGowan, Training Director, Quanta Services

Track X-A

ENGINEERING ETHICS COURSE

Ethics For Engineers B#5

C. Vipulanandan (Vipu), PhD, PE, Professor/Director-CIGMAT, Director of THC IT, Dept. of Civil and Environmental Engineering, University of Houston

Wednesday, January 30

Track II-C

SEWER REHABILITATION

Sewer Rehabilitation Strategy Workshop),)

George Kurz, PE, DEE, Consulting Engineer, CH2M Hill Pat Stevens, PE, Vice President-Engineering, ADS Environmental Services

Track II-D

SEWER CONSTRUCTION & REHABILITATION

Keynote Session: First Planned U.S. Curved Microtunnel Project (APWA Project Of The Year) +% James Sullivan, PE, Senior Project Manager, AECOM

Advances In Pilot Tube Microtunneling '+, %

David Crandall, Vice President, ICON Tunnel Systems

Comparison Study Of Advanced Pipeline Condition Assessment Technologies +- (

Jeff Maier, PE, Engineer, Metro Wastewater Reclamation District

Comparing Grout With Other Rehab Methods, %%

Jim Gentry, Sales Manager, Avanti Intl.

7,000 LF Single Insertion Slipline Rehabilitation Project', ''

Richard (Bo) Botteicher, PE, M.ASCE, Senior Product Engineer, Underground Solutions

Trenchless Challenges For Sewer Renewal Across An Electrical Transformer Yard B#5 John Struzziery, PE, Principal Engineer, Kleinfelder

Track XI

COATINGS & REHABILITATION FOR PIPELINES AND MANHOLES

Inspector Training For Manhole Rehabilitation , ()

Steve Henning, Technical Director, IPR

Pre- And Post-Inspection For Coatings On Water/Wastewater Substrates ,) &

Aaron Hoffman, Technical Sales Representative, Raven Lining Systems

Manhole Rehabilitation - Which One To Select? B#5

Leonard Assard, PE, Manager-Engineering Services, Heitkamp Inc.

Corrosion Hidden Under Sound Coatings "B#5

Danny Warren, President, Warren Environmental

Traffic Loading & Durability In Manhole Grade Rings, *\$

Eric Dickson, General Manager, Cretex Specialty Products

Emergency Repair Turns To Long Term Rehab B#5

Jennifer Hoop, President, Conco Spray Solutions

Ask the Experts Panel Discussion 'B#5

Track XII

LATERAL PIPE REHABILITATION

No-Dig Injection Process – Structural Rehabilitation Of Lateral, +) **Connections & Mainline Point Repairs**

Don Barnhart, Business Development Manager, Pipeline Renewal Technologies

Lateral Connection Sealing - Biggest Bang For The Rehabilitation Buck? ", +-

Stewart Nance, Vice President, Quadex/InterfitUSA

Service Lateral Connections – A Cost Effective Way To Rehabilitate "B#5

Jacob Trapani, Vice President, BLD Services

Sealing A Collection System By Renewing Lateral Pipes , -)

Larry Kiest, Jr., President, LMK Technologies

Lateral Connection Rehabilitation With A TopHat System - \$+

Chris Scarratt, COO, Cosmic TopHat

Ask The Experts Panel Discussion 'B#5

Track V-B

PIPE BURSTING: ADVANCED APPLICATIONSPresented by the International Pipe Bursting Association (a division of NASSCO)

PVC Becomes Practical Option For Pipe Bursting -%

Steven Gross, PE, Director of R&D/Technical Services Pipe & Foundation Products, CertainTeed David Ventresca, President, Midas Utilities

Asbestos Cement Pipe Enforcement Activities 'B#5

Collins Orton, Product Specialist, TT Technologies

Challenges & Solutions Of Large Diameter, Class C & D Projects 'B#5

Troy Freed, Director-Trenchless Technologies, Utility Services Authority

The Case For Well-Written, Standard Specifications '-''

Mike Woodcock, Member/Owner, Portland Utilities Construction

Pre-Chlorinated Water Main Replacement Solves Major Problem For Michigan City B#5

Andy Mayer, President, Murphy Pipeline Contractors

Ask The Experts Panel Discussion B#5

Collins Orton, Product Specialist, TT Technologies
George Mallakis, Vice Chair-IPBA, Regional Manager, TT Technologies
Alan Goodman, North America Sales Manager, HammerHead Trenchless Equipment
Andy Mayer, President, Murphy Pipeline Contractors
Matt Werth, General Manager, PM Construction-Florida
Troy Freed, Director-Trenchless Technologies, Utility Services Authority
Mike Rocco, Trenchless Manager, Albuquerque Underground
Matt Timberlake, President, Ted Berry Trenchless Technologies Team

Track VI-B

WATERWORKS CONFERENCE

Case Study: Largest Construction Management At Risk Project - (*

Jason Bybel, Project Manager, City of Austin Larry Laws, Project Director, MWH Constructors

A Willing Buyer - North Texas Seeks Water Sales From Oklahoma B#5

Wayne Owen, Planning Director, Tarrant Regional Water District

Mike Woodcock, Member/Owner, Portland Utilities Construction

Rapid Setting Polyurethane Lining – A Solution To A Unique Water Quality Problem B#5

George Logan, Director-Engineering & Planning, Aquarion Water Co. Leonard Assard, PE, Manager-Engineering Services, Heitkamp

San Antonio Water Systems Brackish Groundwater Desalination Program -) -

Richard Donat, Planner III, San Antonio Water System Kevin Morrison, Project Coordinator, San Antonio Water System

Ice Pigging: A Sustainable Technology Using Ice To Clean Pipes -+\$

Kirt Ervin, PE, Vice President-Water Quality, Utility Service Co.

Track VII-B

HDD OPERATIONS & PROFITABILITY

Record Drill For Underground Electrical Conduits With Thermal Grout "--*

Guy Dickes, President, Constellation Group

Between Rock And A Hard Place N/A

John Gregor, HDD Manager, Miller Pipeline Grady Bell, Vice President-Business Development, Laney Directional Drilling Josh Sutton, Bore Superintendent, M-CON

Risk Assessment For Successful Drilling N/A

Randy Rupp, The Charles Machine Works

Installing Conduit Towards Pilot Exit Without Backreaming '%%&

Bob Harr, Chief Operating Officer, Harr Technologies/Meridian Construction

Track VIII-B

HDD: MUD SCHOOLS

Advanced Mud School B#5

Tom Tibor, Sr. Account Representative, Baroid Industrial Drilling Products **Ben Clark**, Area Manager-Underground Construction Technologies, Derrick Equipment Co.

Track XIII

UNDERGROUND UTILITIES CONSTRUCTION

Use Of Polypropylene For The Slipline Market For Large Diameter Culverts %%

Nathan Jovanelly, PE, Zone Engineer, Advanced Drainage Systems Hugh Scott IV, PE, Regional Engineer, Advanced Drainage Systems

Pipe Ramming And The United States Rail System '%' \$

Alan Goodman, North America Sales Manager, HammerHead Trenchless Equipment

What, When, Where, Why And How Of Erosion Control, Sediment Control And Revegetation Tools For Linear Projects "% (+

Tony Johnson, General Manager, American Excelsior Co. Greg Johnson, Business Development Manager, American Excelsior Co.

How Keyhole Technology Reduces Operating Costs, Impact On Traffic, And Increases Public Satisfaction '%) +

Marshall Pollock, Q.C., President/CEO, Utilicor Technologies Dennis Jarnecke, R&D Manager, GTI

Case Study: Direct Pipe Alternative To HDD In Difficult Soil Conditions "%, '

Gerhard Lang, PhD, Business Development Manager-UT Div., Herrenknecht AG

Track IX-B

DAMAGE PREVENTION & SAFETY CONFERENCE

Restoring Vital Services After Major Disasters '%/\$)

Bill Mattiford, Vice President-Safety, Henkels & McCov

Progress In Efforts To Eliminate Crossbores '%%

Greg Scoby, Vice President, Frontline Energy Services

How Potholing Helps Reduce Utility Strikes N/A

Dave Campbell, Manager, AirVac Systems

Trends, Equipment For Excavation Safety % &-

Mike Ross, National Training Coordinator, Efficiency Production

Thursday, January 31

Track X-B

ENGINEERING ETHICS COURSE

Ethics For Engineers '%'()

Daniel Wong, PhD, PE, President/CEO, Tolunay-Wong Engineers

Track II-F

SEWER CONSTRUCTION/REHAB: EMERGING TECHNOLOGIES

Development And Testing Of A Green Cost-Effective Corrosion Resistant Coating For Wastewater Conveyance & Storage Facilities '%+\$

Carlos Montes, Research Scientist, Louisiana Tech University

Dealing With Stringy Sewage; Non-Clogging Technology In Portable Diesel Pumps '%, *

Michael Delzingaro, Vice President-Sales, Xylem

Track II-F

SEWER/WATER CONSTRUCTION & REHABILITATION

Sub-Zero Sewer Bypass"% *

Ladd Gould, National Strategic Account Manager, Sunbelt Pump & Power

Corrosion Problems & Renewal Technologies For Wastewater Systems %\$\$)

Eric Dupre', Business Development/Partner, Southern Trenchless Solutions Mohammad Najafi, PhD, Director-CUIRE, Dept. of Civil Engineering-University of Texas-Arlington Frank Madero, PE, PMP, CPC, President, Madero Engineers & Architects

Using Electro Scan Technology To Evaluate Dry Weather Infiltration % \$\%\$

Chuck Hansen, Chairman/CEO, Electro Scan