

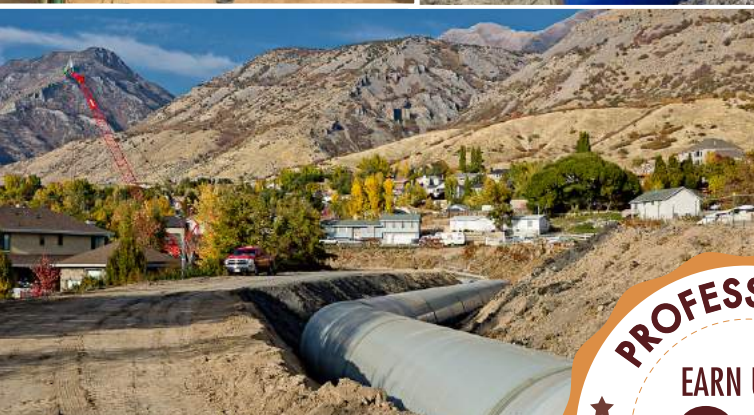
FINAL PROGRAM



PIPELINES 2017 CONFERENCE

Phoenix, Arizona | August 6 - 9

**Reliability and Resiliency through
Sustainable Design and Construction**



JW MARRIOTT DESERT RIDGE HOTEL

www.pipelinesconference.org

Follow the Conversation #pipelines17

SCHEDULE AT A GLANCE (Subject to change)

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Friday, August 4	
8:00 a.m. - 5:00 p.m.	UESI Board of Governors Meeting
Saturday, August 5	
7:00 a.m. - 3:00 p.m.	Registration and Bookstore Hours
8:00 a.m. - 5:00 p.m.	Committee Meetings
8:00 a.m. - 5:00 p.m.	*Pre-Conference Workshops
Sunday, August 6	
7:00 a.m. - 6:30 p.m.	Registration and Bookstore Hours (Registration closed 11:15 a.m. - 12:15 p.m.)
8:00 a.m. - 5:00 p.m.	Committee Meetings
8:00 a.m. - 5:00 p.m.	*Pre-Conference Workshops
6:00 - 7:30 p.m.	Welcome Reception in Exhibit Hall
Monday, August 7	
7:00 a.m. - 5:00 p.m.	Registration and Bookstore Hours (Registration closed 1:00 - 2:00 p.m.)
8:00 - 9:30 a.m.	Plenary Breakfast and Keynote Speaker
9:30 a.m. - 4:30 p.m.	Exhibit Hall Hours
9:30 - 11:00 a.m.	Concurrent Technical Sessions
11:00 a.m. - 1:30 p.m.	Exhibit Hall Lunch
1:30 - 3:00 p.m.	Concurrent Technical Sessions
3:00 - 4:30 p.m.	Networking Break in Exhibit Hall
3:15 - 4:15 p.m.	Poster Presentations
4:30 - 5:30 p.m.	Concurrent Technical Sessions
Tuesday, August 8	

7:00 a.m. - 5:30 p.m.	Registration and Bookstore Hours (Registration closed 12:15 - 1:15 p.m.)
7:00 - 8:00 a.m.	Continental Breakfast in Exhibit Hall
7:00 a.m. - 4:30 p.m.	Exhibit Hall Hours
8:00 - 9:30 a.m.	Concurrent Technical Sessions
9:30 a.m. - 11:00 a.m.	Networking Break in Exhibit Hall
9:45 - 10:45 a.m.	Poster Presentations
11:00 a.m. - 12:00 p.m.	Concurrent Technical Sessions
12:00 - 1:25 p.m.	Awards Luncheon
1:30 - 2:00 p.m.	Bechtel Lecture
1:30 - 2:00 p.m.	Surveying and Mapping Award Lecture
2:00 - 3:30 p.m.	Concurrent Technical Sessions
3:30 - 4:30 p.m.	Networking Break in Exhibit Hall
4:30 - 5:30 p.m.	Concurrent Technical Sessions
6:30 - 9:30 p.m.	*Musical Instrument Museum Reception
Wednesday, August 9	
7:30 a.m. - 12:00 p.m.	Registration and Bookstore Hours
7:30 - 8:00 a.m.	Continental Breakfast
8:00 - 9:30 a.m.	Concurrent Technical Sessions
9:30 - 9:45 a.m.	Networking Break
9:45 - 10:45 a.m.	Concurrent Technical Sessions
11:00 a.m. - 12:30 p.m.	Closing Keynote Session

* Additional Ticket Purchase Required

Letter from the UESI President

On behalf of the Utility Engineering & Surveying Institute (UESI) of the American Society of Civil Engineers (ASCE), welcome to the Pipelines 2017 Conference in Phoenix, Arizona. This is UESI's second year of operation and the Pipelines 2017 conference is its premier technical conference. In 2016 the Pipelines conference introduced a track on surveying and utilities that was well attended. In 2017, we will continue this effort to provide surveying and utility sessions into the Pipelines Conference to add value to our attendees.

Please be sure to network with your peers and colleagues during the conference, including the Welcome Reception on Sunday evening, the Opening Plenary on Monday morning, and the Awards Luncheon on Tuesday. In 2017, the Tuesday luncheon will include for the first time both the ASCE Bechtel Pipeline Engineering Award and the ASCE Surveying and Mapping Award winners.

Finally, to those attendees that are not currently a member of ASCE or are UESI-only members, please consider joining the Institute. Also, stop by the UESI booth while at the conference and learn more about UESI and how you can get involved.

Enjoy the conference!



Joseph P. Castronovo
P.E., FASCE
UESI President

Welcome to the Desert!

On behalf of the Conference Steering Committee we would like to welcome all of you to the UESI Pipelines 2017 Conference in beautiful Phoenix, Arizona from August 6-9, 2017. Held annually, the Pipelines Conference has provided an avenue for information sharing regarding innovations in the design, construction, monitoring, and delivery of pipeline infrastructure projects. A variety of technological advancements will be showcased to demonstrate the conference theme of "Reliability and Resiliency through Sustainable Design and Construction". Ensuring that our pipelines are reliable and resilient is imperative to societal advancement, especially in this era of shrinking capital funding facing municipalities and utilities.

We expect close to 1,000 attendees this year including many international guests as we have developed a strong technical program with over 160 peer-reviewed papers and panel discussions spread over 7 tracks, plus 5 focused pre-conference workshops. The presentations will cover aspects of pipelines, utilities, surveying and geomatics. This year, we will have the largest number of exhibitors ever, showcasing the best technological solutions. Additionally, the program has been rearranged to allow more time to visit the exhibition hall for identifying potential solutions.

On Monday, we will kick off an excellent group of presenters, including a keynote presentation. We will recognize the outstanding contributions of three dedicated industry professionals at the Tuesday Awards Luncheon by bestowing the ASCE Stephen D. Bechtel Pipelines Engineering Award, the UESI Pipeline Division Award of Excellence, and the ASCE Surveying & Mapping Award. On Tuesday evening, you can network with colleagues at the famous Musical Instrument Museum. Make sure that you purchase this additional ticket, as they are sure to sell out! Throughout the conference there will be continuing opportunities to reconnect with friends, learn from your associates, and enjoy the ambiance of one of America's great destination cities.

Make your plans to join us in sunny Arizona for Pipelines 2017 to learn about pipeline "Reliability and Resiliency through Sustainable Design and Construction".

See you in the desert!



Samuel T. Ariaratnam
Ph.D., P.Eng., P.E., FASCE,
Arizona State University



Britt Klein
Aff.M.ASCE
Pure-Wachs

CONFERENCE STEERING COMMITTEE

CONFERENCE CO-CHAIRS:

Samuel T. Ariaratnam, Ph.D., P.Eng., P.E., FASCE
Arizona State University

Britt Klein, Aff.M.ASCE
Pure-Wachs

TECHNICAL PROGRAM CO-CHAIRS

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Structural Technologies

Jim Geisbush, P.E., M.ASCE
Central Arizona Project

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Construction Product Marketing

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Erin McGuire, P.E., M.ASCE
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Miami-Dade County Water and Sewer Department

SURVEYING & UTILITY RISK LIAISONS

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Geodetic Analysis, LLC

Francelina A. Neto, Ph.D., RLS, M.ASCE
California Poly Pomona

ASCE CONFERENCES STAFF

Cristina Charron
Manager, UESI Conferences

Brittany Boyce, Aff.M.ASCE
Senior Coordinator, SEI Conferences

ASCE SPONSORSHIP AND EXHIBIT SALES

Sean Scully
Manager, Sponsorship and Exhibit Sales

UTILITY ENGINEERING & SURVEYING INSTITUTE (UESI) OF ASCE

John Segna, P.E., FASCE
Director, UESI

Frank Kim, Aff.M.ASCE
Manager, CEC

Susan Reid, Aff.M.ASCE
Manager, UESI

CONFERENCE AGENDA

PRE-CONFERENCE WORKSHOPS

Saturday, August 5

Large Diameter Pipeline Forum

8:00 a.m. - 5:00 p.m. | Grand Sonoran CD

This year's forum will include the latest information on important pipeline topics including condition assessment, pipeline monitoring, data and modes of failure. As always, the forum will encourage active dialog and audience participation. The speakers chosen represent large diameter pipeline experts with experience in various geographic locations including a great Arizona presence.

Moderator: Nathan Faber, P.E., M.ASCE

Speakers: Rafael Ortega, P.E., M.ASCE; Frank Blaha, P.E. M.ASCE; Darrin Francom, P.E., M.ASCE; Britt Klein

Registration Fee: ONS \$375

Sponsored by:



Steel Water Tanks

1:00 - 5:00 p.m. | Grand Sonoran B

Every water pipeline project will require the installation of field constructed storage tanks to regulate pressure and surges within the transmission system. Steel storage tanks can be constructed as elevated or as reservoir tanks, while built to national standards, with additional detail given on roof styles and foundations. Life cycle costs, aesthetics, and state-of-the-art coatings and linings will be discussed. The latest designs for seismic activity will be shared.

Speakers: Kevin Morris; Wayne Gener, P.E., M.ASCE; Paul Windham; Leslie Scott, P.E. M.ASCE; John Bambei, P.E., M.ASCE

Registration Fee: ONS \$245

Sunday, August 6

AWWA Manual M11 – Steel Pipe, A Guide for Design and Installation

8:00 a.m. - 12:00 p.m. | Grand Sonoran CD

This workshop will review the soon to be published 5th edition of AWWA M11. Anticipated publish date of second quarter 2017. Changes in the manual and detailed design of steel pipe and appurtenances will be reviewed.

Speakers: John Bambei, P.E., M.ASCE; Liz Ralph, P.E., Dennis Dechant, P.E., M.ASCE; Bob Card, P.E., M.ASCE; Rick Mielke, P.E., M.ASCE; Brent Keil, P.E., SCWI, M.ASCE; Nash Williams, A.M.ASCE; John Luka, P.E., M.ASCE; Henry Bardakjian, P.E., M.ASCE; Brett Simpson, P.E., M.ASCE; Jeff Burratto

Registration Fee: ONS \$245

The Sustainable Design of Pipelines

1:00 - 5:00 p.m. | Grand Sonoran D

The purpose of this workshop is to introduce the principals of sustainable planning, design, construction and operation as they specifically pertain to pipeline projects. The MOP presented is intended to be a resource guideline for those interested promoting sustainability in the development, construction and operation of pipeline projects and was developed for project proponents, consultants, government agencies and others who are not familiar with sustainability practices as they may be applied to pipeline technologies and for those who engage in the practice of pipeline development on a daily basis.

The workshop and MOP will provide the pipeline professional with guidance and processes that allow for the considerations and trade-offs necessary to produce the most sustainable overall project design. For the most part, the processes will be not be prescriptive, but rather will serve to provide the resources needed to balance the project requirements that result in the least overall impact for the functional life-cycle of the project.

The workshop and MOP are built around the framework of Envision®, the sustainable infrastructure rating tool, developed with the support of ASCE. The purpose of the MOP is not to describe how to successfully rate a project under Envision® but rather to take the concepts of the Envision® system and incorporate them into the design process. The workshop and the MOP use the concept of Life Cycle Analysis (LCA) to develop project life cycle costs in a more rigorous evaluation of a project's total carbon footprint and impact of the triple bottom line. The ability to successfully rate a project under Envision® is a value added that project proponents can use to promote their efforts.

Speakers: Walt Schwarz, P.E., FASCE; Bob Walker, P.E.; Gregg Horn; Shelly Hattan, P.E., M.ASCE; Pat White, P.E.; Mo Najafi, P.E., Ph.D., FASCE; Mark Mihm, P.E., ENV SP, M.ASCE; Mike Leathers; Alan Hutson, P.E., ENV SP, M.ASCE; Elizabeth Blackwelder, P.E., ENV SP, M.ASCE

Registration Fee: ONS \$245

Pilot Tube and Other Guided Boring Methods of Manual Practice

1:00 - 5:00 p.m. | Grand Sonoran B

This workshop will introduce a new ASCE MOP for 2017 – Manual of Practice for Pilot Tube and Other Guided Boring Methods as prepared by the Task Force of the ASCE Committee on Trenchless Installation of Pipelines (TIPS). The pilot tube method is defined as a multistage method of accurately installing a pipe to line and grade by use of a guided pilot tube followed by upsizing to install the pipe. The authors consist of a group of engineers, owners, suppliers, manufacturers, and contractors fully knowledgeable of the method and its use. The manual describes the current pilot tube and other guided installation methods used by engineers and construction professionals in designing and installing pipelines to line and grade under roads, railroads, streets, and other constructed and natural structures and obstacles. Speakers will review topics covered in the manual including detailed methodology, project planning, site investigation, shaft design, pipe characteristics and design, design and contract documents, and construction.

Speakers: Mo Najafi, P.E., Ph.D., FASCE; Jeffrey J. Boschert, P.E., M.ASCE; Troy Stokes, Aff.M.ASCE; Glenn M. Boyce, P.E., Ph.D., FASCE; Dennis J. Doherty, P.E., FASCE; Andrew Finney, P.E., G.E., P.Eng, M.ASCE; Nick Strater, P.G.; Richard Palmer, P.E.

Registration Fee: ONS \$245

SPECIAL EVENTS

Sunday, August 6

Welcome Reception in Exhibit Hall

6:00 - 7:30 p.m. | Grand Canyon 1-8

Kick off your conference experience with cocktails and networking in the Pipelines 2017 Exhibit Hall.

Included in Full, Speaker, Moderator, Municipal, Student, and Monday Daily registration rates.

Additional tickets: \$75

Poster Viewing

Located in the Grand Sonoran Foyers A-D and H-K, posters are available for viewing from Sunday, August 6th 6:00 p.m. through Tuesday, August 8 at 5:00 p.m.

Monday, August 7

Plenary Breakfast, Welcome, and Keynote Presentation

8:00 - 9:30 a.m. | Grand Sonoran EFG

Join us for the introductory event of the 2017 Pipelines Conference! Start the morning with a welcome from Kathryn Sorenson, Director of the City of Phoenix Water Services and 2018 ASCE President Kristina Swallow, P.E., ENV SP, FASCE, followed by the Keynote Speaker, Jon Schladweiler, P.E. Don't miss the exceptional opportunity to fuel up for a day of learning with friends and colleagues.



Kathryn Sorenson, Ph.D., Director of the City of Phoenix Water Services oversees one of the largest potable water utilities in the United States, which treats and reliably delivers high quality tap water to 1.5 million customers throughout approximately 540 square miles. Phoenix Water also manages Phoenix's sewer collection system, and treats

wastewater for 2.5 million residents in the Valley of the Sun. The massive infrastructure needed to serve public health and safety includes 13,000 miles of water and sewer lines, eight treatment plants, 50,000 fire hydrants, and hundreds of pump stations, wells, and reservoirs. Phoenix's water supply is sound and sustainable as a result of multiple water sources and a logical, methodical approach to supply planning, infrastructure management, conservation, and drought preparation in a desert city. All of the city's highly treated wastewater is recycled and reused for crops, ecosystem restoration, aquifer recharge, and energy production at the Palo Verde Nuclear Generating Station. Phoenix's water and sewer rates are among the lowest of large cities in the U.S.

Kathryn has a Ph.D. in Resource Economics and a Bachelor of Arts in Economics. She serves as a member of the Arizona Water Banking Authority Commission, an Advisory Committee member of Arizona State University's Decision Center for a Desert City, as a member of the State of Arizona's Colorado River Advisory Committee, on the Board of Advisors of the Kyl Center for Water Policy at Morrison Institute, as an Advisory Committee member of the Water Resources Research Center, on the Board of Directors of the Water Research Foundation, and as a member of the Rates and Charges Subcommittee of the American Water Works Association.



2018 ASCE President Kristina Swallow, P.E., ENV SP, FASCE is a program manager for the City of Las Vegas, and has more than twenty-years of professional practice in water resources, transportation, and land development. She leads a team of engineers responsible for delivering public works projects and planning the sanitary sewer

collection system. Kristina has been active in ASCE for more than two decades, and has served on the Utility Engineering and Surveying Institute as a Board-appointed Governor before being elected as the 2017 ASCE President. Among many past roles, she served as Region 8 Director, Region 8 Governor, Educational Activities Committee Chairman, and on ASCE's 150th Anniversary Steering Committee. She also worked for the Office of Senator Tom Udall as a legislative assistant on transportation issues from 2010-2012. Kristina received her Bachelor of Science in Civil Engineering at the University of Arizona and her Masters of Science in Civil and Environmental Engineering from the University of Nevada, Las Vegas. Kristina is a licensed professional engineer in Nevada.



Jon C. Schladweiler, P.E. is the Historian for the AZ Water Association. Over the past 26 years he has researched and collected materials related to the history of sewage conveyance systems. Many of these items (photos, articles, artifacts, etc.) were initially displayed in the AZ Water's traveling Sewer History Exhibit and/or on his website; sewerhistory.org.

The Sewer History Exhibit is now under the ownership/control of NASSCO. Jon holds a Bachelor of Science Degree (Civil Engineering) from the Univ. of Wisconsin and has worked in the wastewater industry for over 40 years. He was most recently employed by the engineering and environmental consulting firm of WestLand Resources, Inc. of Tucson, AZ; as a Technical Advisor and Mentor. He has retired as of February 1, 2017. He is a registered P.E. in the states of Arizona and Colorado. Mr. Schladweiler is an active member of the Water Environment Federation, the AZ Water Association, the American Water Works Association and the American Public Works Association/Public Works Historical Society. In 2002, The Public Works Historical

Society of the American Public Works Association selected Jon as the recipient of its Aedile Award; recognizing his outstanding contributions toward the collection, preservation and dissemination of public works history. Mr Schladweiler was selected for the award for his oral presentation, "Tracking Down the Roots of our Sanitary Sewers".

Included in Full, Speaker, Moderator, Municipal, Student, and Monday Daily registration rates.

Additional tickets: ONS \$65

Exhibit Hall Open

9:30 a.m. - 4:30 p.m. | Grand Canyon 1-8

Concurrent Technical Sessions

9:30 a.m. - 5:30 p.m.

Exhibit Hall Lunch

11:00 a.m. - 1:30 p.m. | Grand Canyon 1-8

Enjoy lunch as you tour this year's exhibit hall, meet exhibitors, and learn about the exciting new developments and products in the pipelines industry.

Included in Full, Speaker, Moderator, Municipal, Student and Monday Daily registration rates.

Additional tickets: ONS \$50

Networking Break in Exhibit Hall

3:00 - 4:30 p.m. | Grand Canyon 1-8

Sponsored by:



Poster Presentations

3:15 - 4:15pm

Poster authors will be available for discussion during this time. (Posters will be available for viewing from Sunday August 6 at 6:00 p.m. through Tuesday August 8 at 5:00 p.m. in the Grand Sonoran Foyers A-D and H-K).

Tuesday, August 8

Exhibit Hall Open

7:00 a.m. - 4:30 p.m. | Grand Canyon 1-8

Continental Breakfast in the Exhibit Hall

7:00 - 8:00 a.m. | Grand Canyon 1-8

Concurrent Technical Sessions

8:00 a.m. - 5:30 p.m.

Networking Break in Exhibit Hall

9:30 - 11:00 a.m. | Grand Canyon 1-8

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Poster Presentations

9:45 - 10:45 a.m.

Poster authors will be available for discussion during this time. (Posters will be available for viewing from Sunday August 6 at 6:00 p.m. through Tuesday, August 8 at 5:00 p.m. in the Grand Sonoran Foyers A-D and H-K).

CONFERENCE AGENDA

Awards Luncheon and Keynote Presentation

12:00 - 1:25 p.m. | Grand Sonoran EFG

Please join us in celebrating the achievement of the winners of 2017 Stephen D. Bechtel Pipeline Engineering Award, ASCE Pipeline Division Award of Excellence and ASCE Surveying & Mapping Award. This annual awards luncheon will include a State of the Division address by Executive Committee Chairman Victor Fernandez-Cuervo, P.E., M.ASCE.

Stephen D. Bechtel Pipeline Engineering Award

Established by the ASCE Board of Direction in 1970, this award recognizes outstanding achievements in pipeline engineering. The Bechtel Foundation donated funds to support the award in honor of contributions made by Stephen D. Bechtel. The award is made annually to an ASCE member who has made significant contribution to the advancement of pipeline engineering in research, planning, design, or construction.



Glenn M. Boyce, Ph.D., P.E., F.ASCE is the recipient of the ASCE 2017 Stephen D. Bechtel Pipeline Engineering Award for his numerous contributions to the engineering profession as a seasoned practitioner, educator and author expanding design and construction realms of utility pipelines, tunnels, shafts, geotechnical engineering and all aspects of

trenchless technologies. Glenn is a supervising tunnel and geotechnical engineer, with more than three decades of professional experience covering every aspect of tunnel, shaft, and geotechnical engineering, including exploration and assessment. Glenn specializes in trenchless design engineering, with a portfolio of projects throughout the United States that includes a wide range of trenchless technology methods: horizontal directional drilling (HDD), microtunneling, pipe ramming, and auger boring. He has published numerous articles about trenchless technology, as well as two books and two manuals. He has been acknowledged for his expertise in trenchless engineering on numerous occasions, including as Trenchless Technology magazine's "2009 Trenchless Technology Person of the Year." Serving as an engineer, lead engineer, project manager, or technical reviewer, Glenn has been involved in preliminary and final design, alignment and layout, geometries, laboratory testing, cost estimating and analysis, and environmental studies, inspections, and assessments for a variety of trenchless, tunneling, and shaft projects. His project expertise includes facilities for water supply and wastewater, highways, power, outfall tunnels and pipelines, and transit systems. Glenn received his BSCE and Masters in Geotechnical Engineering from Drexel University and Ph.D. in Geological Engineering at the University of California, Berkeley. Having served as Chairman of the North American Society for Trenchless Technology and active in many professional organizations, Glenn is also an award-winning engineer, teacher, and author.

ASCE Pipeline Division Award of Excellence

The ASCE Pipeline Division Award of Excellence was established in 1988 by the Pipeline Division. It is given to a Fellow, Member, or Associate Member of ASCE who is adjudged by the Executive Committee to have given outstanding continuous and conspicuous service to the profession, ASCE, and the Pipeline Division.



Timothy B. Kennedy, P.E., M.ASCE is the recipient of the 2017 Pipeline Division Award of Excellence for his service and leadership as chair of the executive committee of the UESI Pipeline Division in 2015-2016. Tim has served on various technical committees of the Pipeline Division for

many years and continues to serve in the Pipelines committees. Tim has more than three decades of experience in the water, wastewater and construction industry. His background includes operating the largest pre-stressed concrete facility in North America and previous management experience with several large water and airport infrastructure projects in the U.S. Tim is active in industry associations that include the Steel Pipe Fabricators, American Concrete Pressure Pipe, and American Society of Civil Engineers. Tim is a graduate of University of Dayton, where he earned his BSCE and Master of Science Engineering Management. He is a registered professional engineer in Maryland and Ohio. His professional affiliations include the associations of American Concrete Pipe, American Water Works, Water Environment Federation and Steel Plate Fabricators.

ASCE Surveying and Mapping Award

Established in October 1969, the award is made annually to an individual who has made a definite contribution during the year to the advancement of surveying and mapping either in teaching, writing, research, planning, design, construction or management, these contributions being made in the form of papers or other written presentations, or in some instances through notable performance, long years of service, or specific actions which have served to advance surveying and mapping.



Ron Singh, P.L.S., M.ASCE is the recipient of the 2017 ASCE Surveying & Mapping Award for his detailed vision of the future as the Chief of Surveys for the Oregon Department of Transportation, where he helped implement new engineering automation technologies for operations, maintenance and construction. Recently retired, Ron was a leader in

transportation engineering automation for over 25 years and worked at the DOT for four decades. Ron was the Engineering Automation Manager and Chief of Surveys for the Oregon DOT, where he directed the agency's engineering automation program that is responsible for the research, development, and training for all automation aspects of surveying, design, and construction. He managed all emerging uses of unmanned aircraft systems across the department. Ron also directed the agency's surveying program which includes surveys for Project Development; Construction; Boundary Monumentation; Photogrammetry and Remote Sensing; Geodetic Control; and Right-of-Way Engineering.

Keynote Presentation: Scott Zimmer

When Generations Connect



With 15 years of public speaking experience, Scott has developed a uniquely personable style and uses insight, humor, and data to foster an environment where every generation feels valued and understood.

As a proud Xer and one of BridgeWorks' speakers and generational experts, Scott's presentations clearly illustrate the stress points between generations and provide clear solutions to help relieve tension and encourage better understanding and collaboration across generational divides.

A child of the 80s and 90s, Scott has insider knowledge into what makes his generation tick. Along with the other Xers at BridgeWorks, Scott's love of nostalgia, including Atari and He-Man, knows no bounds. He's put his knowledge of pop culture and expertise on generational theory to good use by developing BridgeWorks' generational trivia show. When he's not on the road, Scott is the office jokester who brings contagious optimism and hilarious childhood stories to BW HQ.

Scott grew up on a dairy farm in Central Minnesota where he mastered the art of milking cows. He graduated from St. John's University in 2000 with a BA in Communications. When he's not researching or presenting, he enjoys his other role as a self-proclaimed movie-buff and always knows the latest happenings in the Twin Cities.

Included in Full, Speaker, Moderator, Municipal, Guest, Student and Tuesday Daily registration rates

Additional tickets: EB/ADV/ONS \$75

Sponsored by: 

Stephen D. Bechtel Award Lecture

1:30 - 2:00 p.m. | Grand Canyon 9 & 10

Surveying & Mapping Award Lecture

1:30 - 2:00 p.m. | Grand Canyon 11 & 12

Networking Break in Exhibit Hall

3:30 - 4:30 p.m. | Grand Canyon 1-8

Sponsored by: 

Special Event - An Evening of Sounds - Musical Instrument Museum

6:30 – 9:30 p.m.

Come join your fellow conference attendees for dinner, drinks and a night at the Musical Instrument Museum! With over 6,500 instruments collected from around the world, you'll discover why TripAdvisor says this museum is "*worth the trip to Arizona*". Tour this unique destination with Pipelines colleagues and friends where you'll be able to see and hear a world of instruments enhanced by state-of-the-art audio and video. Visit the Experience Gallery where you can play actual instruments and be sure to stop by the Artist Gallery to see musical artifacts from legends such as Elvis Presley, John Lennon and Carlos Santana. Hosted by Structural Technologies, we look forward to seeing (and hearing) you for this special Evening of Sounds!

Ticket purchase is required. This event is not included in the registration package so register early for this unique experience. Buses will begin to shuttle attendees at 6:00 p.m. from Sunset Lawn/Ballroom Exit to the museum.

Registration Fee: ONS \$85

Sponsored by:



Wednesday, August 9

Continental Breakfast

7:30 - 8:00 a.m. | Grand Sonoran EFG Foyer

Concurrent Technical Sessions

8:00 – 10:45 a.m.

Networking Break

9:30 - 9:45 a.m. | Grand Sonoran EFG Foyer

Sponsored by:



Closing Keynote Plenary

11:00 a.m. - 12:30 p.m. | Grand Sonoran EFG



Keynote Speaker: Faridodin "Fred" Lajvardi

Improbable to Unstoppable

Fredi Lajvardi kindles your innate sense of ingenuity with his remarkable firsthand account of how he transformed a group of high school students into a national champion robotics team.

Fredi captivated the country when he led his team of disadvantaged teenagers in a university-level underwater robotics competition, where they defeated leading schools, including top-ranked MIT. Their story inspired the acclaimed documentary "Underwater Dreams" and was also adapted into the major motion picture, "Spare Parts," starring actor and comedian, George Lopez as Fredi. His award-winning Falcon Robotics team will be featured in the 2017 film "Dream Big."

Honored with numerous awards for his spirited passion for teaching, Fredi continues to serve as a prominent advocate about the importance of STEM education nationwide.

With humor and compassion, Fredi brings audiences on his inspiring journey, illustrating the need to embrace diversity and invest in people to help others realize their potential. His incredible real life tale equips you with the real life encouragement to maximize your own potential and to work together to solve complex problems.

Poster Sessions:

This year, we have an excellent collection of technical posters focusing on a wide variety of topics. Posters will be prominently displayed in the Grand Sonoran Foyers A-D and H-K between 6:00p.m. on Sunday and 5:00 p.m. on Tuesday. Poster presentations will occur on Monday, 3:15 – 4:15p.m. and Tuesday, 9:45– 10:45a.m. in which all poster authors will be stationed at their posters to provide technical discussions regarding their topics. Plan to stop by for these interactive and informative sessions.

Committee Meetings

Committee	Date	Time	Meeting Room
UESI Board of Governors	Aug 4, 2017	8:00 a.m. - 5:00 p.m.	Desert Suite 1
Task Committee on Seismic Design of Buried Pipelines	Aug 5, 2017	8:00 a.m. - 5:00 p.m.	Grand Canyon 12 & 13
Task Committee on Sustainable Design of Pipelines	Aug 5, 2017	8:00 a.m. - 5:00 p.m.	Grand Canyon 10
UESI Pipeline Division ExCom	Aug 5, 2017	8:00 a.m. - 5:00 p.m.	Grand Sonoran A
Trenchless Installation of Pipelines (TIPS)	Aug 5, 2017	9:00 - 11:00 a.m.	Grand Canyon 11
UESI Utility Asset Management Division ExCom	Aug 5, 2017	1:00 - 5:00 p.m.	Grand Canyon 11
Committee on Pipeline Publications and Committee on Pipeline Research	Aug 5, 2017	3:00 - 5:00 p.m.	Grand Canyon 9
UESI Pipeline Division ExCom	Aug 6, 2017	8:00 a.m. - 12:00 p.m.	Grand Sonoran A
UESI Surveying & Geomatics Division ExCom	Aug 6, 2017	8:00 a.m. - 5:00 p.m.	Grand Sonoran I
Task Committee Revision of MOP 117- Inspecting Pipeline Installation	Aug 6, 2017	8:00 a.m. - 5:00 p.m.	Grand Canyon 10
Task Committee on Thrust Restraint Design of Buried Pipelines	Aug 6, 2017	8:00 a.m. - 5:00 p.m.	Grand Canyon 11
Task Committee on Pipe Bedding, Backfill, and Trench Shoring	Aug 6, 2017	8:00 a.m. - 5:00 p.m.	Grand Canyon 9
UESI Utility Asset Management Division ExCom	Aug 6, 2017	8:00 a.m. - 5:00 p.m.	Grand Sonoran H
Utility Risk Management Division (URMD) ExCom	Aug 6, 2017	8:00 a.m. - 5:00 p.m.	Grand Sonoran J
Pipeline Location and Installation (PLI) Technical Committee	Aug 6, 2017	1:00 - 3:00 p.m.	Grand Canyon 12
Committee on MOP 112 Update Pipe Bursting Projects	Aug 6, 2017	2:00 - 4:00 p.m.	Grand Canyon 13

POSTER SESSIONS

Construction and Rehabilitation

- 136 - Resilience-Based Rehabilitation Planning of Water Supply Systems: A Multi-Hazard Context - **Zeinab Farahmandfar and Kalyan Piratla**
- 172 - Comparison of Carbon Footprint Using Trenchless and Open-Cut Methods for Underground Freight Transportation - **Razieh Tavakoli, Mohammad Najafi, Taha Ashoori and Amir Tabesh**
- 208 - An Analysis of Soil Hauling Operations between Tunneling and Pipeline Installation - **Seyedmohammadsadegh Jalalediny Korky, Mohammad Najafi, Mohammadreza Malek Mohammadi and Amir Tabesh**
- 209 - Use of Cut-and-cover Method for Pipeline Installation in Underground Freight Transportation - **Seyedmohammadsadegh Jalalediny Korky, Mohammad Najafi, Mohammadreza Malek Mohammadi and Amir Tabesh**
- 271 - Development and use of Robotic Equipment for Large Diameter Pipe Recoating - **Jess Chism**
- 317 - Rehabilitation of a Concrete-Embedded Fire Line in a Tunnel in New York City - **Markus Olson**

Planning and Design

- 31 - A Lab Scale Study to Investigate the Monochloramine Demand and Decay in the Tarrant Regional Water District's Large Diameter Pipelines in the Presence of Biofilm - **Srinivas Prabakar, Andrew Kruzic and Shelly Hattan**
- 59 - Model for Simultaneous Selection of Water Distribution Pumps and Their Operation for Given Demand Patterns - **Puneet Khatavkar and Larry Mays**
- 118 - Large Deformation Performance of Steel Pipeline Designed for Fault Crossings - **Brad Wham, Chalernmpat Pariya-Ekkasut, Christina Argyrou, Margaret Stack, Thomas O'Rourke, Harry Stewart, Hayato Nakazono and Nobuhiro Hasegawa**
- 158 - Pipeline Symphony in the Sun City - **Kimberly LaBree and Michael Ramirez**
- 228 - Design of Symmetric Wye Branches - **Christian Sundberg and Jack Call**
- 237 - HDD vs. DirectPipe®? Which is the Most Appropriate Trenchless Method for My Crossing? - **Maureen Carlin**
- 245 - Life Cycle Cost Analysis of an Underground Freight Transportation (UFT) System in Texas - **Saeed Janbaz, Mohammad Najafi and Mohsen Shahandashti**
- 248 - Environmental Impacts of Pipeline Construction for Underground Freight Transportation - **Amir Tabesh, Mohammad Najafi, Taha Ashoori, Razieh Tavakoli and Moshen Shahandashti**
- 249 - Investment Valuation of an Underground Freight Transportation (UFT) System in Texas - **Seyedehsan Ehsan Zahedzachedani, Moshen Shahandashti and Mohammad Najafi**
- 251 - From Plant to Pipe to Plants: Re-Purposing Process Water to Grow the Phoenix Valley - **Taylor Ahrens Dorf and Noel Guercio**
- 268 - Resilient Water Supply Systems: Battle of Metrics - **Abdulrahman Bin Mahmoud and Kalyan Piratla**
- 322 - Priority Based Holistic Life Cycle Cost Analysis Model - **Sunil Sinha and Mayank Khurana**
- 323 - Finite Element Analysis of Pipe Jacking in Rocky Lands and the Interaction Between Boulders and Pipe Jacking Route: Tehran Sewerage Case Study - **Babak Mohammadi, Arash Jenabi and Bahram Ahmadi**
- 327 - Design Guideline for Fiberglass Pipelines Installed Using Horizontal Directional Drilling - **Sri Rajah**
- 343 - Model Experiment on Earth Pressure Acting on Buried Pipe during Sheet Pile Extraction - **Kenji Terada, Sho Takahara, Yutaka Sawada and Toshinori Kawabata**

Surveying, Geomatics and Utility Risk Management

- 24 - Maximum Transient Pressures in Hydrocarbon Pipelines over a wide Range of Fluid Types and Temperatures - **Guohua Li**
- 86 - Throttling process and quasi-equilibrium property for transported supercritical CO₂ in pipeline - **Qing ZHAO and Quiyang Li**
- 140 - Identifying Corrosion Zones in Coastal Regions for Metal Pipes – A GIS Approach - **SanjayTewari and Frances Manning**
- 352 - A Risk-Based Model for Corrosion Control of Underground Ductile Iron Pipelines - **Gregg Horn and David Kroon**
- 267 - Using GIS to Investigate, Analyze, and Evaluate Mitigation for Ongoing Large Diameter Pipelines Distress in Sacramento San-Joaquin Delta, California - **Yogesh Prashar, Mashall McLeod and Rachel Wong**

Condition Assessment

- 345 - The Importance of Performing Valve Inventory and Operability Assessment Prior to Pipeline Condition Assessments - **Wayne Pratt and Travis Wagner**

Please note: posters will be displayed in the Grand Sonoran Foyers A-D and H-K.

TECHNICAL PROGRAM MONDAY AUGUST 7

8:00 - 9:30 a.m. Plenary Breakfast and Keynote Speaker

9:30 - 11:00 a.m. Concurrent Technical Sessions

TRACK A Construction & Rehabilitation I FELIPE PULIDO Room: Grand Sonoran A	TRACK B Construction & Rehabilitation II JEFF HEIDRICK Room: Grand Sonoran B	TRACK C Condition Assessment I DOUG JENKINS Room: Grand Sonoran C	TRACK D Condition Assessment II FREDERICK TACK Room: Grand Sonoran D	TRACK E Planning & Design I ANDY DETMER Room: Grand Sonoran H	TRACK F Planning & Design II MARK MIHM Room: Grand Sonoran I	TRACK G Survey/Geomatics & Utility Risk Management MICHAEL DENNIS Room: Grand Sonoran J	TRACK H Multidiscipline DAN BUONADONNA Room: Grand Sonoran K
SESSION A1 REHAB MURAT ENGINDENIZ 293 - Relining a 12-foot Diameter Steel Discharge Pipe at the Central Arizona Project Speaker(s): Jim Geisbush 335 - 16th Avenue Sanitary Trunk Sewer Rehabilitation Pilot Study - Sprayed Geopolymer Lining Speaker(s): Paul Headland, James Steele, Mike Nuhfer, Birju Shah, and Vin Severa 371 - Schuarita Slipliner Project Speaker(s): Kevin Miller	SESSION B1 DESIGN-BUILD/ ALTERNATIVE DELIVERY WILLIAM BRICK 33 - The Norris Cut Utility Relocation Project - Updating Aging Infrastructure for System Resiliency with Design-Build Methods Speaker(s): Terrence Carroll, William Whidden, Eloy Ramos, Lin Li, Victor Fernandez-Cuervo 70 - Kutz Siphon Failure: How to Shut Down Memorial Weekend Speaker(s): Wylie (Chris) Duke 108 - Alternative Delivery Facilitates Design and Construction of a Challenging Sewer Force Main Speaker(s): Chad Talbot, Frederick Tack, and Daniel Spitz	SESSION C1 PCCP DOUG JENKINS 274 - Transmission Main Assessment in the City of Phoenix: Where Have We Been and Where are We Going? Speaker(s): Bethany McDonald, Amée Conroy, and Ernest Scharkan 283 - Developing and Implementing a PCCP Condition Assessment Program Speaker(s): Peter Nardini, Marie-Genève Nielsen and Rasko Ojdovic 275 - Theoretical and Experimental Basis of AWWA Standard C305 on CRP Renewal of PCCP Speaker(s): Mehdi Zarghamee	SESSION D1 CASE STUDIES MICHAEL WORITON 179 - Finding Efficiency in Modern Force Mains Speaker(s): Chris MacDonald and Anita Pritchard 243 - Condition Assessment of 30-inch Steel Force Mains Speaker(s): Alison Payauys, Susan Hildreth, Wayne Gresh, Karl Hadler and Richard Pousard 255 - Seymour-Capilano Filtration Project: Transient Analysis Field Testing Speaker(s): Michael Georgalas	SESSION E1 CASE STUDIES KALYAN PIRATLA 144 - Augmenting "tunnel" vision for blue horizon Speaker(s): Steve Bian and William Elledge 350 - Water Distribution System Pipe Replacement Given Random Defects - Case Study of San Francisco's Auxiliary Water Supply System Speaker(s): Charles Scawthorn, David Myerson, Douglas York and Eugene Ling 273 - Pipeline Design Coordination and Procurement of Large Valves at a Reservoir Speaker(s): Jonathan Shirk and Michael McCure	SESSION F1 TRENCHLESS EDWARD ALAN AMBLER 266 - JEA Scores Twice - 2 Major HDDs Launched From Jaguars Stadium Parking Lot Speaker(s): Christine Ellenberger, Michelle Macauley, Elizabeth DiMeo, Tiffany Shaw, and Ted Foltz 174 - Case Study: Challenges to install vertically curved HDPE casing pipes for 36-inches large diameter water mains crossing highway Speaker(s): Jonghoon Kim, Robert Lyons, Jinsung Cho and Dan Koo 154 - Geotechnical engineering aspects of deep microtunnel pipeline crossings of Honolulu Harbor in very soft sediments Speaker(s): James Kwong, Keolahi Sandefur, and Lynn Maling	SESSION G1 SURVEYING ENGINEERING MANUAL JESSICA COCHRAN 202 - Panel Discussion: The ASCE Manual of Practice on Surveying and Geomatics Engineering Speaker(s): Daniel Gillins	SESSION H1 CONTINGENCY PLANNING AND DESIGN MIKE AMBROZIAK 103 - Recycled Water Infrastructure Provides Critical Water Supply in Midst of Drought Speaker(s): Christy Nelson, Adam Neltje, and Michael Matson 19 - Corridor Analysis of a Raw Water Transmission Pipeline Speaker(s): Amanda Powers and Wesley Stolz 80 - Preparing for the Worst, Expediting the Best: Removing the Guessing from Pipeline Contingency Planning and Response Strategies Speaker(s): Christopher Garrett

TECHNICAL PROGRAM MONDAY AUGUST 7 CONTINUED...

11:00 - 1:30 p.m. Exhibit Hall Lunch

1:30 - 3:00 p.m. Concurrent Technical Sessions

TRACK A Construction & Rehabilitation I FELIPE PULIDO Room: Grand Sonoran A	TRACK B Construction & Rehabilitation II JEFF HEIDRICK Room: Grand Sonoran B	TRACK C Condition Assessment I DOUG JENKINS Room: Grand Sonoran C	TRACK D Condition Assessment II FREDERICK TACK Room: Grand Sonoran D	TRACK E Planning & Design I ANDY DETTMER Room: Grand Sonoran H	TRACK F Planning & Design II MARK MIHM Room: Grand Sonoran I	TRACK G Survey/Geomatics & Utility Risk Management MICHAEL DENNIS Room: Grand Sonoran J	TRACK H Multidiscipline DAN BUONADONNA Room: Grand Sonoran K
SESSION A2 LINING JERRY GALLOWAY 159 - 10 Miles of Interceptor CIPP Rehabilitation on the Rillito Speaker(s): Mark Poppe, Dan Foley, and Noel Ortiz 162 - Use of CFRP as an External Repair for Structurally Deficient Pipes Speaker(s): Jayne Shepherd and Amber Wagner	SESSION B2 TRENCHLESS MICHAEL FLEURY 182 - State Transportation Agencies Using Trenchless Technologies for their In-house Operations: A case study of ODOT Acquiring HAB Machine. Speaker(s): Simon Adamley, Lameck Onsarigo and Alan Atalah 58 - The Innovative (Grand) Junction Speaker(s): Lee Cooper 256 - Technical Viability of Replacing Segments of Existing Large Diameter Pressure Pipelines via Cured-in-Place (CIP) Lining Speaker(s): Ricardo Vieira and Fred Tingberg Jr.	SESSION C2 OIL AND GAS KEITH BUSHDIECKER 376 - Use of Downhole Instrumentation To Reduce Frackout Risk Speaker(s): Nicholas Strater, Brian Dorwart, Geoff Thomas and John Seibert 368 - An Optimal Preventive Maintenance Model for Natural Gas Transmission Pipelines Speaker(s): Sharareh Kermanshachi, Murat Cobanoglu and Ivan Damjanovic 24 - Maximum Transient Pressures in Hydrocarbon Pipelines over a wide Range of Fluid Types and Temperature Speaker(s): Guohua Li	SESSION D2 LARGE DIAMETER ANDY CHAE 366 - Analysis and Verification of PCCP Stiffness Testing Using Non-Invasive Acoustics Speaker(s): Leslie Steves, Kevin Laven, Rasko Ojdovic and John Marciszewski 210 - Large Diameter Sewer Assessment - When to Take It to the Next Level? Speaker(s): V. Firat Sever, Jeremy Cawley, Zachary Neukam, John Schroeder, and Marc Lehmann 292 - Criticality Ranking and Condition Assessment for PCCP Speaker(s): Peter Nardini, and Rasko Ojdovic	SESSION E2 DESIGN MIZAN RASHID 52 - Quantitative Study on How Model Simplification Affects Pipeline Network Surge Results Speaker(s): David (Weidong) Cheng and Roberto Portillo 355 - An Overview of Restrained Joint Development Down through the Years Speaker(s): Chris Dillard and Maury Gaston 363 - Air Valve Selection for Competing Pipeline Project Needs Speaker(s): Tom Charles and Shilpa Shivakumar	SESSION F2 DESIGN DAVID PHELPS 146 - Design and Construction of Water Transmission Pipeline Across Camanche Reservoir by Float-and-Sink Speaker(s): George Chiu 230 - Fundamentals of Differential Settlement of Pipelines Speaker(s): Christian Sundberg 358 - Update to the Improved Approach for the Design of Thrust Blocks in Buried Pipelines Speaker(s): Stephen Shumaker and the Task Committee on Thrust Restraint Design of Buried Pipelines	SESSION G2 SURVEY CONTROL AND MAPPING MICHAEL OLSEN 238 - Efficient and High-Accuracy Geodetic Control Surveys Using Hybrid Static and Real-Time GNSS Networks Speaker(s): Daniel Gillins, Brian Weaver, Michael Dennis, and Michael Olsen 241 - Modernizing the National Spatial Reference System Speaker(s): William Stone 284 - Lessons Learned Mapping Critical Pressure Pipelines - City of Ottawa Case Study Speaker(s): Cameron White, Marie-Genevieve Nielsen and Robert Hayward	SESSION H2 CONDITION ASSESSMENT TIM KENNEDY 50 - Sinkhole Locating & Corrosion Quantification with Pipe Penetrating Radar Speaker(s): Ccaba Ekes 126 - Costs and Benefits for Pipeline Acoustic Fiber Optic Monitoring Speaker(s): Nathan Faber 278 - Technology for Assessing the Condition of Your Pipelines: Two Decades in the Making Speaker(s): Allison Stroebele and Anna Lee

3:00 - 4:30 p.m. Networking Break in Exhibit Hall

4:30 - 5:30 p.m. Concurrent Technical Sessions

SESSION A3 CONSTRUCTION SHELLY HATTAN	SESSION B3 REHAB MATT GAUGHAN	SESSION C3 PENSTOCKS NATHAN FABER	SESSION D3 METALLIC PIPELINES FREDERICK TACK	SESSION E3 TRENCHLESS MAUREEN CARLIN	SESSION F3 CLAIMS REDUCTION TOBER FRANCOM	SESSION G3 SURVEYING PANEL DISCUSSION JAMES ANSPACH	SESSION H3 CASE STUDIES ANNA PRIDMORE
104 - Making Way for the Ho Chi Minh City Subway While Avoiding Suspension of Financial District Activities by Use of Triple Plugging and Bypasses Speaker(s): Charles Herkis 16 - Design-Build of 48-inch Water Main Interconnect in Downtown Miami Speaker(s): Agustin Maristany, Mariana Evora, Lin Li and Victor Fernandez-Cuervo	131 - Case Studies in Trench Shoring and Landslide Repair in Difficult Terrain Speaker(s): Corey Misilinski and Frank Amend 234 - Performance Modeling of Wastewater Collection Networks Using Multi Proactive Renewal Analysis Speaker(s): Hadi Ganjidoost, Amin Ganjidoost, Mark Knight and Andre Unger	34 - SPUC Kirkwood Penstock - Short Term Risk Reduction Measures Speaker(s): Derek Wurst 271 - Development and use of Robotic Equipment for Large Diameter Pipe Recoating Speaker(s): Jess Chism	194 - Using Advanced Computational Modeling to Select the Appropriate Level of Structural Rehabilitation for Ductile Iron Pressure Pipes Speaker(s): John Mathews and Ali Alavinasab 277 - City of Phoenix Water Services Water and Sewer Assessment and Rehabilitation Program: Yesterday and Today Speaker(s): Aimee Conroy, Patty Kennedy, Blaine Robinson and Mario Brown	360 - Direct Pipe Round Table Discussion Speaker(s): James Chae and Michelle Macauley	219 - Claims Reduction through Understanding Failure Speaker(s): Ron Anthony	5 - For the Box is Black and Full of Terrors - Mastery of Modern Geospatial Technology for Surveying and Engineering Projects Speaker(s): Michael Dennis	270 - Case History: Large Diameter High Volume Water Resource Development and Conservation at USBR's Minidoka North Utilizing Sustainable Principles Speaker(s): Daniel Murdock, Ronald Bishop and Daniel Temple 35 - Failing to Flowless in a Day: Pre-chlorinated Pipe Bursting Invigorates Arlington Water Utilities Main Replacement Program Speaker(s): Jessie Allen, Edward Alan Ambler and Todd Grafenauer

7:00 - 8:00 a.m. Continental Breakfast in Exhibit Hall

TECHNICAL PROGRAM TUESDAY AUGUST 8

8:00 - 9:30 a.m. Concurrent Technical Sessions

SESSION A4 DESIGN-BUILD/ ALTERNATIVE DELIVERY	SESSION B4 LINING	SESSION C4 LARGE DIAMETER	SESSION D4 NASSCO - PACP	SESSION E4 MATERIALS	SESSION F4 RISK AND RESILIENCE	SESSION G4 UTILITY ENGINEERING: LARGE PROJECTS	SESSION H4 RESEARCH AND DESIGN
MIKE LARSEN 163 - Design/Build for Trenchless Rehabilitation – Find and Fix: Lessons for Success Speaker(s): Jonathan Kunay and Nicholas Rysstrom 226 - Alternative Delivery Methods in the Water and Wastewater Industry: Challenges and Opportunities Speaker(s): Mounir El Asmar and Samuel Ariarathnam 261 - CMAR Team Delivers 90 MGD Water Conveyance System for Mesa Residents Speaker(s): Jason Jansen and Lance Webb	MICHAEL GIPSOV 37 - CIPP Applications for Pressure Pipeline in High-Profile Area Speaker(s): Ian Lancaster and Joyn Shepherd 164 - Rehabilitation of 48-inch and 42-inch Steel Cylinder Concrete Pipe (SCCP) via Slipline: Las Vegas, NV Speaker(s): Ryan Pearson 218 - Rehabilitation of Non-Round Sewers Utilizing Profile Shaped Fiberglass Pipe Speaker(s): Don Colich, Ryan Tales and Jeffrey LeBlanc	DAN KOO 211 - Siphon 1 Failure Analysis Speaker(s): Antonio Flori and Jon Fischer 77 - What's going on in my transmission pipeline loop? Speaker(s): Cliff Jones, Tom Ginn, and Simeon Hunter 133 - The Case for Indefinite Life Facilities in Water and Wastewater Conveyance: How the future will look at water transmission mains 48 inches and larger and sanitary sewer force mains 24 inches and larger Speaker(s): Jose Villalobos, Noy Phannavong and Michael Johannessen	FRANK BLAHA 362 - Indian Bend Wash Side Inlet Pipe Assessment Using the NASSCO Pipe Certification Assessment Guidelines Speaker(s): Michael Heaton, Frank Brown and Gregg Kent 357 - Using Risk Models and Automated Defect Characterization Algorithms to Instantaneously turn PACP data into Capital Upgrading Programs for ALCOSAN Speaker(s): Christopher Macey, Brad Craft, Keith Jensen, Dave Bringham and Mike Lichte 190 - Development of a Quality Assurance Process for Sewer Pipeline Assessment and Certification Program (PACP) Inspection Data Speaker(s): Hossein Khaleghian, Yongwei Shan and Phil Lewis	SHAOQING GE 201 - Finite Element Modeling of Buried New PVC Pipe with Native Soil Speaker(s): Marian Shahrokh Esfahani, Mohammad Najafi, Dave Hughes, Chandan Venkatesh, and Agnes HyeJung Lee 30 - Five Improvements in AWWA C900-16 That You Need to Know About Speaker(s): Robert Walker 79 - Synergistic Corrosion Protection of Ductile Iron Pipe Utilizing Metallic Zinc Coating in Combination with Enhanced Polyethylene Encasement Speaker(s): Mike Horton and David Hughes, Jr.	SCOTT GIBSON 83 - Seismic Fragility Evaluation of Water Pipelines Part 2: Framework for Practical Applications Speaker(s): Sri Rajah 175 - Exploring the Six Dimensions of Lifelines Infrastructure Resiliency Speaker(s): Ahmad Habibian and Ehsan Minaie 187 - Identifying Geotechnical Risk and Assigning Ownership on Pipeline Projects Using Alternative Project Delivery Methods Speaker(s): Tober Francom and Chris Markham	MATTHEW DUFFY 151 - Sewer Superhighway: Fast Track for Large Diameter Consent Decree Pipeline Speaker(s): Jeffrey Farnsworth and David Bennett 155 - Optimizing Utility Investigations on Large Design-Build Projects Speaker(s): James Anspach and Robert Ramsey 100 - Overcoming the Challenges of Pipeline Conflicts on a Major Interstate P3 Speaker(s): Grant Misterly, Christine Ellenberger, Richard Voorhees, Sam Mark and Jeremy Jardell	GEORGE BONTUS 320 - Lateral Loading Experiments for Pipe-Soil Interactions in Liquefied Sandy Soil Speaker(s): Kohai Ono, Yu Yokota, Yutaka Sawada and Tashinori Kawabata 250 - Lessons Learned in the Design and Use of Stainless Steel as an Alternative to Carbon Steel Bolts and Tie Rods Speaker(s): Brent Keil and Neal Kelemen 140 - Identifying Corrosion Zones in Coastal Regions for Metal Pipes - A GIS Approach Speaker(s): Sanjay Tewari and Frances Manning

9:30 - 11:00 a.m. Networking Break in Exhibit Hall

11:00 - 12:00 p.m. Concurrent Technical Sessions

SESSION A5 CASE STUDIES	SESSION B5 CONSTRUCTION	SESSION C5 HIGH PRESSURE	SESSION D5 DISTRIBUTION/ TRANSMISSION	SESSION E5 MATERIALS	SESSION F5 SEISMIC	SESSION G5 UTILITY ENGINEERING: PIPELINE OWNERS	SESSION H5 ETHICS IN CIVIL ENGINEERING AND CONSTRUCTION
PHIL RYAN 145 - DC Water at Work: Cut Less to Mitigate the Not-so-Hidden GEO-Structural Risk Speaker(s): Steve Bion 353 - Increasing Pipeline Pressure Rating Using the CFRP Liners - A Case Study Speaker(s): Murat Engindeniz, Kyle Sanderson, and Anthony Samiripais	BRENT KEIL 224 - Construction Phase - Large Diameter Pipeline Seismic Retrofit Mitigates Landslide Hazard Speaker(s): Darren Baune 272 - Underground challenges on the Willburton Sewer project: complex design elements are put to the test during construction Speaker(s): James Chae	IAN LANCASTER 61 - "Just When You Thought You Had Seen It All - The Value of High Frequency Pressure Data" Speaker(s): Kevin Fisher, Cliff Jones and Shonnie Cline 188 - Managing Your Infrastructure's Mid-Life Crisis: Strategic Pipeline Renewal for Distribution Mains Speaker(s): Susan Donnelly and Paul DiMarco	DANIEL TOFT 228 - Design of Symmetric Wye Branches Speaker(s): Christian Sundberg and Jack Call 364 - Wichita Rapid Assessment and Repair of Critical 66-inch Pipeline Speaker(s): Gary Skipper, Mark Geraghty and Anna Fridmore	JOHN MATTHEWS 29 - Direct Pipe® Construction - An Engineering Perspective on Quality Assurance Speaker(s): Jonathan Robison and Nicholas Arens 118 - Large Deformation Performance of Steel Pipeline Designed for Fault Crossings Speaker(s): Brad Wham, Chalermapat Pariya-Ekkasut, Christina Argyrou, Margaret Stack, Thomas O'Rourke, Harry Stewart, Hayato Nakazono, and Nobuhiro Hasegawa	BRIAN BALL 99 - Earthquakes, Fires, and Landslides, Oh My! Pipeline Replacements in a Hazard-Prone, California Neighborhood Speaker(s): Krista Maita 227 - Mechanical Response of Steel Pipe Welded Lap Joints in Seismic Areas Speaker(s): Spyros Karamanos, Evangelina Koritsa, Brent Keil, Robert Card and Patricia Pappa	MICHAEL DENNIS 181 - Arizona's Pipeline Owners Roundtable Discussion Speaker(s): Michael Ambrozak and Aimee Conroy	PAUL ACOSTA Ethics in Civil Engineering and Construction Speaker(s): David J. Prusak

12:00 p.m. - 1:25 p.m. Awards Luncheon and Guest Speaker

TECHNICAL PROGRAM TUESDAY AUGUST 8 CONTINUED...

1:30 - 2:00 p.m. Bechtel Lecture

1:30 - 2:00 p.m. Surveying and Mapping Award Lecture

2:00 - 3:30 p.m. Concurrent Technical Sessions

TRACK A Construction & Rehabilitation I FELIPE PULIDO Room: Grand Sonoran A	SESSION A6 LINING WALT SCHWARZ 246 - Shooting at a Moving Target: Forensic Analysis of CFRP Strengthened PCCP Validates the Evolution of Joint Detailing and Design Speaker(s): Michael Gipsov, Scott Arnold and Rasko Ojdovic 207 - North Charleston Sewer District's Combined Interceptor Sewer Rehabilitation by Cured-in-Place Pipe Methodology Speaker(s): James Reigart and Jarred Jones 282 - WSSC Breaks Its Record in CRFP Lining of PCCP in One Outage Speaker(s): Murat Engindeniz, Rasko Ordovic and Michael Gipsov	TRACK B Construction & Rehabilitation II JEFF HEIDRICK Room: Grand Sonoran B	SESSION B6 TRENCHLESS JEFF LEBLANC 298 - Asbestos Cement Drinking Water Replacement at the City of Yuma, AZ: A Case Study Speaker(s): Samuel Ariaratnam, Noel Guercio, Joonhoon Kim and Xanthi Panos 115 - In-Service Weld Repair Methods for Gas Transmission Pipelines Installed Under Public Roads Speaker(s): Toshiya Tanaka 378 - Development of a Trenchless Renewal Strategy for Fire Main Failures at an Industrial Facility Speaker(s): Mark Knight and RJ Cooper	TRACK C Condition Assessment I DOUG JENKINS Room: Grand Sonoran C	SESSION C6 INSPECTION ZHIBIN LIN 148 - Using a Phased Approach to Plan for Condition Assessment of a Lime Slurry Force Main using In-Line Inspection Technology Speaker(s): Kristin Knight, Joe Clouse and Chris Garrett 81 - Next Generation Laser Profiling Speaker(s): Tammy Cleys, Daniel Buonadonna, Sam Cancilla, Justin Starr 312 - Lessons Learnt from Large Diameter Pipe Failure Case Studies Speaker(s): Jayantha Kodikara, Frank Blah, Suranji Rathnayaka, Jian Zhangm Craig Crawly and David Zhang	TRACK D Condition Assessment II FREDERICK TACK Room: Grand Sonoran D	SESSION D6 PCCP SRI RAJAH 94 - So Now What? Tough Decisions when Monitoring a PCCP Transmission Main Speaker(s): Calvin Farr, Jorge Rodriguez and Mike Jacobson 93 - Bringing Risk Out into the Miami Dade Sunshine - 5,300 Miles of Pipeline, Which Mile is First? Speaker(s): James Carolan and Adrian Triana 32 - A Drive to Confidence - Managing the Reliability of San Diego County Water Authority's Large Diameter Pipelines Speaker(s): Martin Coghill	TRACK E Planning & Design I ANDY DETTMER Room: Grand Sonoran H	SESSION E6 PLANNING BOB WALKER 12 - Simplified Design Guidelines for Sizing Air Release Valves Speaker(s): Andrew Romer 245 - Life Cycle Cost Analysis of an Underground Freight Transportation (UFT) System in Texas Speaker(s): Saeed Janbaz, Mohammad Najafi, and Mohsen Shahandashi 160 - Optimized Terminal Design for Integrated Underground Freight Transportation (UFT) Systems in Integrated Subterranean Pipeline Infrastructure Speaker(s): Fatemah Rezaeifar, Mohammad Najafi, Siamak Ardekani, and Sirwan Shahoei	TRACK F Planning & Design II MARK MIHM Room: Grand Sonoran I	SESSION F6 LARGE DIAM BRYON LIVINGSTON 55 - Deflection of Large Diameter Butterfly Valves in Fat Clays Speaker(s): Marc Miller and Adam Maughn 125 - A Case Study for One of the World's Largest Subaqueous Pressure Pipelines Speaker(s): Henry Bardakjian and Mehdi Zarghamee 263 - Fast Track Replacement of Existing 72-inch and 90-inch Pipeline Sections during 60 day Shutdown Window Speaker(s): Michael McCure	TRACK G Survey/Geomatics & Utility Risk Management MICHAEL DENNIS Room: Grand Sonoran J	SESSION G6 SURVEYING AND GEOMATICS: AS-BUILTS AND VISUALIZATION LUNA NETO 280 - Integrated Analysis of Aerial and Terrestrial Imagery Data for Efficient and Effective Water Loss Mapping of a Canal System Speaker(s): Jawei Chen, Pingbo Tang and Todd Rakstad 223 - Comparison of Unmanned Aircraft System-Based Photogrammetry with Terrestrial Laser Scanning for Generating a 3D Model of Pipelines Speaker(s): Farid Javahnejad, Daniel Gillins, Michael Olsen and Chase Simpson 167 - Digital Mapping, Visualization and Animation in Cal Poly Pomona (CPP) Geospatial Engineering Curriculum Speaker(s): Allan Ng	TRACK H Multidiscipline DAN BUONADONNA Room: Grand Sonoran K	SESSION H6 PROFESSIONAL DEVELOPMENT MIKE AMBROZIAK 332 - Death by PowerPoint: How to Create and Present a Technical Paper that Doesn't Bore Your Audience to Death Speaker(s): Andrew Sparks 76 - Education: A Critical Component for Future Leaders for Industry Advancement Speaker(s): Seyed Saleh Behbahani and Tom Isley 205 - Reliability of Documentation: How Can we Reliably Design or Construct When our Information is Being Hijacked? Speaker(s): Bernadette Bosse	
3:30 - 4:30 p.m. Networking Break in Exhibit Hall																
4:30 - 5:30 p.m. Concurrent Technical Sessions																
SESSION A7 CONSTRUCTION JEFFREY SHOAF 327 - Design Guideline for Fiberglass Pipelines Installed Using Horizontal Directional Drilling Speaker(s): Sri Rajah 377 - Risk Management: Ensuring Reliability of a Critical 54-inch High Pressure Effluent Force Main Speaker(s): Paul Ruscko, Eddie McCall and Mike Larsen	SESSION B7 REHAB VEYSEL "FIRAT" SEVER 367 - Looking for Simplified Design Models for Non-Circular Liner Design - Moving Beyond WRC Type 2 Sewer Design Methodologies for the North American Market Speaker(s): Adam Braun and Christopher Macey 85 - Lessons from the Global Survey of Sewer Cleaning and Maintenance Speaker(s): Jey Jayapalan	SESSION C7 INSPECTION ANDREW ROMER 157 - "When Testing Results Do Not Match." Speaker(s): Nebojsa Mucibabic 296 - Embedded Wireless Passive Sensor Networks for Health Monitoring of Welded Joints in Onshore Metallic Pipelines Speaker(s): Zhibin Lin, Hong Pan, Ruizi Ge, Xinyu Wang, Jinhui Wang, and Na Gong	SESSION D7 CASE STUDIES RICARDO VIEIRA 287 - Olmsted Power Plant Penstock Condition Assessment and Replacement Speaker(s): Adam Murdock, KC Shaw and Tim Petty 198 - Extending the Service Life of a Brick & Cast In Place Sewer Speaker(s): Bryon Livingston and Andy Clements	SESSION E7 PLANNING RYAN RIGGS 87 - Water to Wine - Providing Los Cameros Vineyards with a New Irrigation Source Speaker(s): Anne Prud'el, John Stewart and Tracy Clinton 233 - Challenges of Planning a 40-Mile Regional Water Transmission Pipeline within a Rural Setting Speaker(s): Kim Chanslor, Jennifer Harrison, Ronnie Woodruff and Larry Nutt	SESSION F7 LARGE DIAM MARK POPPE 90 - Relocating Large Diameter PCCP in a Congested Right-of-Way to Make Way for an Interstate Widening Speaker(s): Rick Derenich and Joel Koenig 304 - Fall Creek CCS Phase I - Multiple CSO Capture in an Urban Setting Speaker(s): Maceo Lewis, Nick Maynard and Jeff Glover	SESSION G7 UTILITY ENGINEERING: OPERATION & MAINTENANCE YOGESH PRASHAR 121 - WaterRF Project #4618: Retrofit & Management of Existing Metallic Pipe with Cathodic Protection Speaker(s): Graham Bell, Mersedeh Akhondan, Steve Pool and Addison Smith 319 - Energy Savings in Water and Wastewater Transmission Systems Through the Use of Appropriate Air Valves Speaker(s): Kim Sorensen	SESSION H7 UNDERGROUND INFRASTRUCTURE UPENDRA TYAGI 18 - Abandoned Utilities: Out of Sight, Out of Mind? Speaker(s): Al Field 249 - Investment Valuation of an Underground Freight Transportation (UFT) System in Texas Speaker(s): S. Ehsan Zahedzadeh, Moshen Shahandashi, and Mohammad Najafi									

3:30 - 4:30 p.m. Networking Break in Exhibit Hall

4:30 - 5:30 p.m. Concurrent Technical Sessions

7:30 - 8:00 a.m. Continental Breakfast

TECHNICAL PROGRAM WEDNESDAY, AUGUST 9

8:00 - 9:30 a.m. Room Location

SESSION A8 TRENCHLESS TIM TAYLOR	SESSION B8 DESIGN-BUILD/ ALTERNATIVE DELIVERY JENI TATUM	SESSION C8 SEWER/STORMWATER INSPECTION GRANT THORNLEY	SESSION D8 DISTRIBUTION/ TRANSMISSION ANDREW WILLIAMS	SESSION E8 TRENCHLESS SHAUN PIETIG	SESSION F8 PLANNING GREG CREWS	SESSION G8 GIS AND ALTERNATIVE/PROJECT DELIVERY SANJAY TEWARI	SESSION H8 EMERGENT TECHNOLOGIES AMANJOT SINGH
171 - A Contractor's Perspective on Constructability for Trenchless Project Design Speaker(s): Arvid Veidmark III and Michelle Walker	265 - Manufacturing of Emergency Repair Pipe for 210" Irrigation Siphon Speaker(s): Vic DeGrande and Joel Olmos	67 - ASCE-2017 River Rejuvenation along Heritage Site Drainage & Sewerage Infrastructure Condition Assessment, Planning, Design and Upgradation Speaker(s): Raman Kumar and Deepika Raj	253 - Financial Optimization of Condition Assessment Spending for Pipeline Replacement Programs Speaker(s): Kevin Laven, Fionn Boyle, Roel Diemel, Asif Noor and Paul Murray	307 - Developing a Successful Specification for Horizontal Directional Drilling Speaker(s): Aaron Cohen and Samuel Ariaratnam	10 - Kings River Pipeline - Balancing Supply Needs, Environmental Constraints, Permitting, and Cost Constraints to Deliver a Secure Water Supply Future Speaker(s): Tim Loper and Jim Kriss	330 - Gravity Sewer Alignment: GIS-Identified Routes Critical Shear Stresses for Self-Cleansing Action Speaker(s): Jessica Cochran	78 - A General Self-Cleansing Model for Drainage Systems Speaker(s): Mir Jafar Sadegh Safari, Golezar Gilanizadehizaji, and Hajjat Seyyedi
120 - City of Houston 30-inch Water Transmission Main Replaced by Compressed Fit HDPE Lining Speaker(s): Arthur Morris, Todd Grafenauer and Edward Alan Ambler	289 - Design-Build of a 72-inch Force Main Rehabilitation Speaker(s): Olena Lytvyn, Victor Fernandez-Cuervo and Robert Card	225 - Development of Guidelines for Managing Stormwater Pipe Assets - Utility Perspective Case Studies Speaker(s): Vivek Prasad Velayutham Kandasamy and Sunil Sinha	127 - Watermain Asset Management Speaker(s): Ben Pressman, Sandra Rolfe-Dickinson, Bethany McDonald and Graham Bell	13 - Design of Mid-Path Intercept HDD Crossing of the Santa Maria River Speaker(s): Jon Hanlon, Andrew Rorer, Jesus Lopez, Josh Nord, Michael Nunley and Eileen Shields	68 - ASCE-2017 Planning and Design of Sewerage Infrastructure for a Congested Area in Delhi - A Case Study Towards Pollution Abatement in River Yamuna Speaker(s): Raman Kumar and Deepika Raj	331 - Increasing Sustainability in Small Utilities Through GIS and Asset Management Speaker(s): James Harris	239 - ASCE Innovation Award: Sandwich Construction Carbon FRP Pipe Speaker(s): Mo Eshani
141 - OMID Sewer Rehabilitation: Innovative Slip Lining of a Large Diameter Sewer Without Interrupting Service Speaker(s): Fritz Klingler, Nicholas Bassett, Sidney Lockhart, Evans Bantios, Jason Edberg and AG Mekkaoui	334 - MDWASD Tunnels Downtown Miami-Fast Tracked Design Build for Large Diameter Gravity Sewer Microtunnel (Gravity Sewer Interceptors for Master Pump Station No. 3) Speaker(s): Jeremy Jardell, Victor Fernandez-Cuervo, Joanne Roederer, Andrew Bursey and Danny Mancini	178 - Real-Time Defect Detection in Sewer Closed Circuit Television Inspection Videos Speaker(s): Saeed Moradi and Tarek Zayed	25 - Drinking Water Distribution System Asset Management: Statistical Modeling of Pipe Breaks Speaker(s): Seth Guikema and Thomas Chen	20 - A Trenchless Approach to Lift Station Elimination Speaker(s): Adam Maughn, Daniel Huffines and Lindy Higginbotham	236 - Can Transmission Pipelines and Interstate Highways Coexist? Formulating the Flagstaff Red Gap Pipeline Route Within the I-40 Corridor Speaker(s): Douglas Smith and Brad Hill	301 - Utility Relocation for Light Rail - Which is the Best Project Delivery Method? Speaker(s): Tricia Cook	132 - New Developments in Multi-Sensor Condition Assessment using LIDAR, Sonar and CCTV Speaker(s): Csaba Ekcs

9:30 - 9:45 a.m. Networking Break

9:45 - 10:45 a.m. Concurrent Technical Sessions

SESSION A9 REHAB JERRY SNEAD	SESSION B9 PIPE MATERIAL AHMED HABBIBIAN	SESSION C9 LEAK DETECTION AND MONITORING JAMES TAYLOR	SESSION D9 INSPECTION ALI ALAVINASAB	SESSION E9 BEDDING CURT COURTER	SESSION F9	SESSION G9 UTILITY ENGINEERING: ASSET MANAGEMENT ANDREW SPARKS	SESSION H9
347 - Rehabilitating a 155 Year Old Arch Shaped Brick Sewer under the Ross Bay Cemetery with Glass Reinforced Polymers (GRP) Speaker(s): Christopher Macey, Adam Braun, Mike Brady, Eric Leydon and Carla Cogan	47 - Big Pipe in the Big Easy Speaker(s): James Ballentine	137 - Sustainable Leakage Monitoring Systems for Water Distribution Pipeline Networks Speaker(s): Sepideh Yazdekhaei and Kalyan Piratla	147 - Defect Based Risk Assessment Model for Prioritizing Inspection of Sewer Pipelines Speaker(s): Mohamed Elmasry, Tarek Zayed and Alaa Hawari	26 - Methods for Accommodating the Classical Problem of Differential Movement Speaker(s): Roger Beiler	169 - Collection and Compilation of Water Pipeline Field Performance Data Speaker(s): Sunil Sinha and Lee Sears	281 - Practical Applications of Validation and Verification Protocols for Infrastructure Asset Management Models and Tools Speaker(s): Berk Uslu and Sunil Sinha	
36 - What Lies Beneath? - Perfecting Grouting Techniques to Prevent Premature Failure of a Large Diameter FCCP Feedermain Speaker(s): Sandra Rolfe-Dickinson, Anthony Parente, Neil Harvey, Troy Leyburne and Matthew Marcuccio	102 - Organizing and Implementing Hot Tapping and Plugging Methods to Enable the Relocation of a 90 Inch Concrete Cylinder Pipe for Highway Improvements Without Service Interruption Speaker(s): Charles Herckis	340 - Simultaneous Cable-less Video Inspection of Pipelines with Integrated Leak Detection Speaker(s): Marko Taferner, Gordon Henrich and Michael Huang	112 - Design-Build Delivery of Offsite Conveyance and Facilities Speaker(s): Frederick Tack and Phillip Stogel	119 - Steel Pipe Installation in Poor Soil Conditions; A Determination of Optimum Trench Width Speaker(s): Robert Card and Brent Keil			

11:00 a.m. - 12:00 p.m. Closing Keynote Session

HOTEL AND GENERAL INFORMATION

HOTEL INFORMATION – THE OFFICIAL CONFERENCE HOTEL

JW Marriott Desert Ridge Resort & Spa
5350 E Marriott Drive, Phoenix, AZ 85054
Telephone: 480-293-5000

This newly remodeled hotel in the Sonoran Desert comes complete with breathtaking views of Phoenix's picturesque desert and dramatic mountains. The luxury hotel is only six and half miles from the Kierland Outdoor Mall and 10 miles from the Phoenix Mountain Preserve.

PARKING

Self-parking: \$10 daily

Valet parking: \$29 daily for day guests or \$19.00 daily for resort guests with paid resort fee

CITY INFORMATION

For more information about places to visit in Phoenix, Arizona or the surrounding area, please contact Visit Phoenix at 602-254-6500 or visit www.visitphoenix.com for additional resources and information about Phoenix.

ADA COMPLIANCE

The JW Marriott Desert Ridge Resort & Spa is fully accessible to the disabled. If you require special assistance at the conference, please submit a written description of your requirements with your registration form or email registrations@asce.org before Tuesday, July 5. While ASCE will make every effort to meet the needs of the disabled, accommodations cannot be guaranteed without prior notification.

ASCE BOOKSTORE

ASCE will operate its popular bookstore at the Pipelines 2017 Conference during registration hours. The bookstore is a great opportunity to browse through the many new and classic titles on display covering all topics in civil engineering.

ASCE BOOKSTORE HOURS:

Saturday, August 5 | 7:30 a.m. - 5:00 p.m.

Sunday, August 6 | 7:00 a.m. - 6:30 p.m.

Monday, August 7 | 7:00 a.m. - 5:00 p.m.

Tuesday, August 8 | 7:00 a.m. - 5:00 p.m.

Wednesday, August 9 | 7:30 a.m. - 12:00 p.m.

ATTENDEE PACKETS

All attendees will receive their name badges and any tickets ordered at the ASCE Registration Desk during registration hours. Early-bird and Advance registrants should present the official ASCE registration receipt to on-site registration staff to obtain conference materials.

ON-SITE REGISTRATION HOURS

Conference Registration is located in the Grand Sonoran Foyer D.

Saturday, August 5	7:00 a.m. - 3:00 p.m.
Sunday, August 6	7:00 a.m. - 6:30 p.m.
Monday, August 7	7:00 a.m. - 5:00 p.m.
Tuesday, August 8	7:00 a.m. - 5:30 p.m.
Wednesday, August 9	7:30 a.m. - 12:00 p.m.

**Hours are subject to change.*

ATTIRE

The dress code for the Conference is business casual (i.e. slacks, casual dresses) to business attire (i.e. neckties, business suits). Meeting room temperatures will vary, so wear layered clothing to ensure your personal comfort. We also recommend attendees wear comfortable shoes.

Please note that certain events may have specific details on attire, and you should refer to the description of that event for more information.

BADGE POLICY AND RIBBONS

Your name badge is your admission to the Conference. Please wear your badge at all times while in the JW Marriott Desert Ridge Resort & Spa. Tickets are required for the pre-conference workshops, meals, and special events. Where tickets are required, please be sure to bring your tickets with you to each event as you will not be admitted without a ticket. Ribbons will be available at the Registration desk. ASCE recommends you remove your badge when leaving the conference hotel.

CONFERENCE PROCEEDINGS

The conference proceedings will be available on flash drive. One copy is included with each full registration package. Turn in your proceedings ticket in to the ASCE Book Store to receive the proceedings flash drive.

Sponsored by:



MEDICAL EMERGENCIES

ASCE hopes that your visit to the conference will be free from illness or injury, but in case you or a family member needs medical attention during your stay at the hotel, please contact the Front Desk from any house phone. Hotel staff will respond immediately to your location. For life threatening emergencies, such as chest pain, shortness of breath, or severe abdominal pain, please call 911.

MEETING ROOM OVERCROWDING

ASCE will make every effort to schedule popular events in rooms large enough to accommodate anticipated attendance. Since many events are extremely popular, it is wise to select alternative events as you plan your conference schedule. ASCE and the conference hotel are REQUIRED to follow local fire regulations and may ask participants in rooms filled to capacity to choose another event.

MOBILE APP

Be sure to download the Pipelines 2017 Conference App for the latest program information and important details you won't want to miss.

Sponsored by:



NO SMOKING POLICY

ASCE supports a "No Smoking" policy. Smoking is prohibited in the JW Marriott Desert Ridge Resort & Spa, and all venues hosting ASCE events.

POST-CONFERENCE EVALUATION

In addition to daily surveys via the mobile app, an electronic evaluation will be sent out immediately after the Conference to all attendees.

PROFESSIONAL DEVELOPMENT HOURS (PDHs)

You may earn PDHs, which are nationally recognized units of record, by attending pre-conference workshops and conference concurrent sessions. Please note there are differences from state to state in continuing education requirements for professional engineering licensure. Each state licensing board has the final authority to approve course, credits, PDHs, and other methods of earning credits in that state. ASCE strongly

recommends that individuals regularly check with their state licensing boards for specific continuing education requirements in their jurisdictions that affect professional engineering licensure and the ability to renew licensure. Included with your name badge you will receive a badge with your name and a bar code specific to your registration. Before you enter the room for a Pre-Conference Workshop, or a Technical Session you must scan your bar code in order to receive credit. The scanner will acknowledge a successful recording of your name for the specific session. We strongly recommend you scan your badge at the beginning of each session to eliminate any challenges and/or lines later.

Please note that the only way to receive PDH credits is if you scan the bar code located on the back of your conference badge at the start of each session.

RECORDING OF SESSIONS

Video or audio recording of any educational session is strictly prohibited without prior written permission from both ASCE and the session presenter(s).

RELEASE/WAIVER/SPECIAL ASSISTANCE

Photograph Release: By submitting the Registration form, I hereby release any photographs that may be incidentally taken of me during these events by ASCE to be used for any purpose.

Liability Waiver: I agree and acknowledge that I am undertaking participation in ASCE events and activities at my own free and intentional act, and I am fully aware that possible physical injury might occur to me as a result of my participation. I give this acknowledgement freely and knowingly that I am, as a result, able to participate in ASCE events, and I do hereby assume responsibility for my own well-being. I also agree not to allow any other individual to participate in my place.

WEATHER

Please be prepared for high temperatures but super-low humidity. Average temperatures in the Phoenix area at this time of the year, range from a high of 104 degrees during the day to around 81 degrees in the evening.

RECYCLE YOUR NAME BADGE HOLDER!

Please help ASCE & Pipelines stay "green" by leaving your name badge holder in the registration area when you leave the conference. If you are concerned about privacy, you are welcome to remove your name from the holder and take that with you.

PROGRAM AND SESSION CANCELLATION

ASCE reserves the right to cancel programs and/or sessions because of low registration. In the unlikely event of a cancellation, all registrants will be notified and will receive a full refund, if applicable. Programs and Sessions are subject to change, and ASCE reserves the right to substitute a program, session, and/or speaker of equal caliber to fulfill the educational requirements.

Registration Category	Technical Sessions	Refreshment Breaks	Exhibit Hall Lunch	Welcome Reception	Plenary Breakfast	Awards Luncheon	Proceedings
Full Registration	✓	✓	✓	✓	✓	✓	✓
Student	✓	✓	✓	✓	✓	✓	
Guest		✓	✓	✓		✓	
Daily (Monday)	✓	✓	✓		✓		
Daily (Tuesday)	✓	✓				✓	
Daily (Wednesday)	✓	✓					



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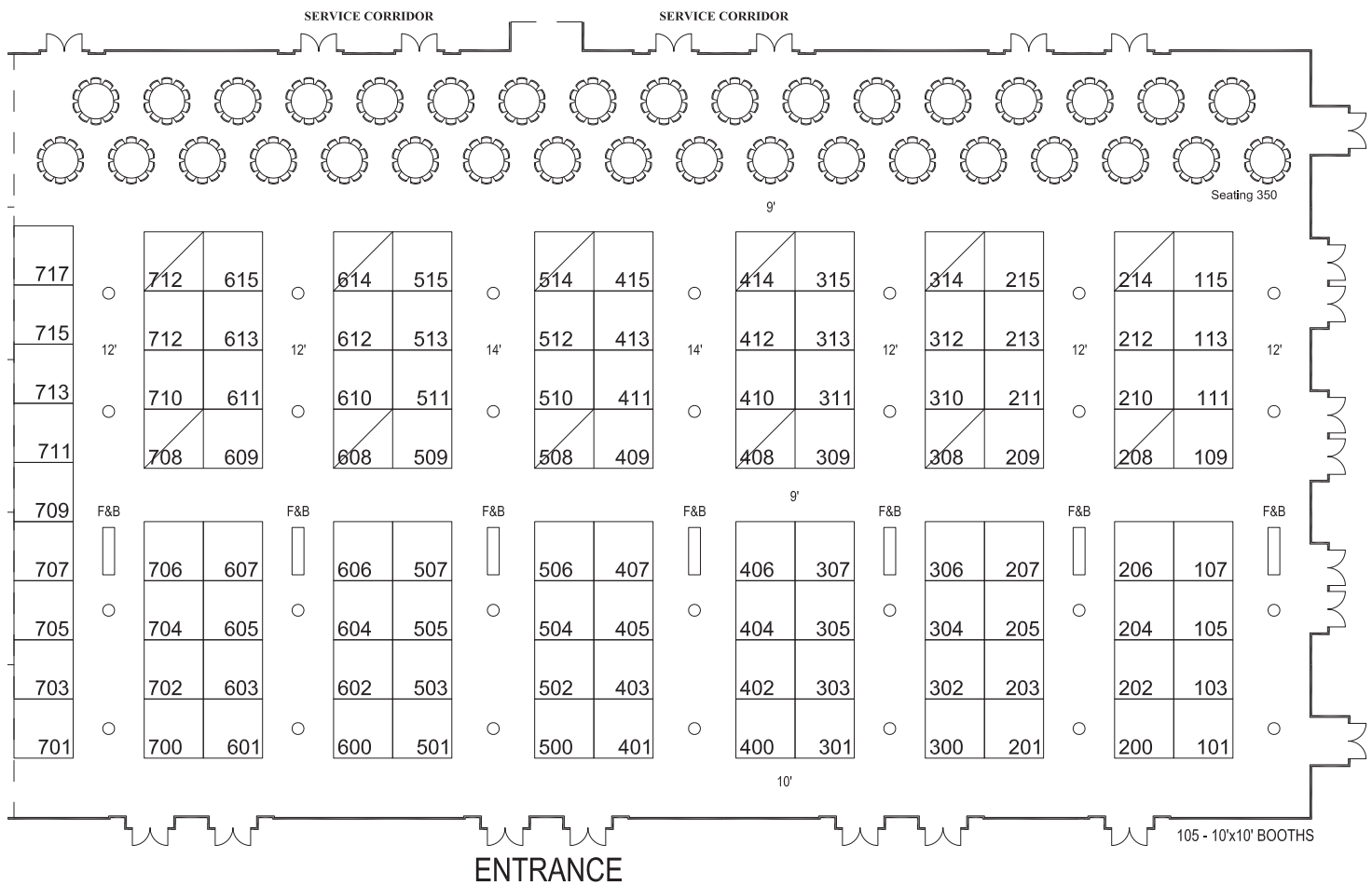
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Booth #	Company
413	Ace Pipe Cleaning
606	Advance Products & Systems
105	Aims Companies
205 & 207	Alliance for PE Pipe
501 & 503	American
509 & 511	Ameron Water Transmission Group
608	ARI-USA
107	Armorock
404	Aquam Pipe Diagnostics
Foyer near Registration	AWWA
215	Blacoh Surge Control
515	Carboline Company
115	Cardno
506	Charlatte
409	Chemline, Inc.
415	ConShield Technologies Inc.
610	Construction Product Marketing
208 & 210	Contech Engineered Solutions
614	Cretex Specialty Products
209, 211, & 213	Diamond Plastics Corporation
513	Dr. Edward J. Walter & Associates Inc
308	Ductile Iron Pipe Resarch Association
507	Duromar
408 & 410	Echologics
411	Envirologics Engineering Inc.
212	Eos Positioning Systems, Inc
214	ESRI
613 & 615	Fibrwrap Construction Services, Inc
500	Garney Construction
314	Geo Stabilization International
302	Georg Fisher Pipes Systems
717	Globo-SA, Inc
504	Hartman Walsh Industrial Services
305	Hibbard Inshore LLC
111	HJ3 Composite Technologies, LLC
600	Hobas Pipe USA
306	HTS Pipe Consultants
714	HUESKER INC
603	Hydromax USA
Foyer near Registration	Infrastructure Resources
414	Innovyze
311	International Flow Technologies
206	ISCO Industries
510	ITpipes

Booth #	Company
307	J&S Valve
309	JCM Industries, Inc.
406	Jindal Tubular USA, LLC
402	Lifelast, Inc.
700	Magnum Piering Inc
401	Mid America Pipe
703 & 705	Miller Pipeline
403	Milliken Infrastructure Solutions
312	Mistras
706	Mobile Pipe Linings & Coatings, INC
313 & 315	MTA-Messtechnik GmbH
303	NASSCO, Inc.
514	National Clay Pipe Institute
301	Northwest Pipe Company
412	Penspen
602	PICA Corp
708	Pipemedic by Quakewrap
304	Primus Line
300	Pure Technologies
609	Raven Lining Systems
704	Reline America
407	Russell Corrosion Consultants, Inc.
605	SAK Construction, LLC
702	Sanexen
502	Seal for Life Industries
612	Sekisui SPR Americas, LLC
310	Sewer Vue Technology Corp.
604	SGH
109	Sherwin-Williams
101, 103, 200 & 202	SippTech
512	Skyline Steel
204	Sprayroq
707	STI-SPFA
400	STRUCTURAL TECHNOLOGIES
505	Syrinx
201 & 203	The Plastics Pipe Institute
611	Thompson Pipe Group - Flowtite
607	Trenton Corporation
508	TT Technologies
405	U.S. Pipe
101	Uni-Bell PVC Pipe Association
601	Val-Matic Valve & Mfg. Corp
710	Victaulic
712	WINFAB

*Benjamin Media and Underground Construction will have magazine racks near Registration.

EXHIBIT HALL FLOOR PLAN



EXHIBITORS

413

Ace Pipe Cleaning

Ace Pipe Cleaning services include: pipe cleaning, CCTV, acoustic and multi-sensor inspections, trenchless rehabilitation; laterals, manholes, grouting and Centrifugally Cast Concrete Pipe.



606

Advance Products & Systems

Advance Products & Systems, Inc. is a leading manufacturer and distributor of water and wastewater pipeline products. APS is dedicated to manufacturing quality pipeline products that provide their customers with confidence in knowing they have a dependable product backed by 37 years of industry-leading excellence.



105

Aims Companies

AIMS -Established in 2005, our group of companies is proud to be woman-owned (certified WBENC) and proud to have partnered with some of the best customers in our industry. We are a company that strives for excellence in every encounter with our customers and we work hard to build and maintain relationships based on best-in-class service.



205 & 207

Alliance for PE Pipe

The Alliance for PE Pipe is composed of leaders in the PE pipe industry who are committed to the advancement of polyethylene pipe in the municipal water industry



113

Akkerman

Established in 1973, Akkerman develops, manufactures and supports quality pipe jacking and tunneling equipment that accurately installs a variety of underground infrastructure.



501 & 503

American

AMERICAN Cast Iron Pipe Company is a manufacturer of ductile iron pipe, spiral-welded steel pipe, fire hydrants and valves for the waterworks industry.



509 & 511

Ameron Water Transmission Group

Ameron Water Transmission Group is a leader in pipe technology and a principal supplier of highly-engineered concrete and steel pipe systems.



608

ARI-USA

With over 40 years of industry experience, ARI USA is a leading manufacturer and provider of solutions for the protection of liquid transmission systems. Their air valves are an integral part of all types of water and wastewater transmission systems.



107

Armorock

Our Armorock polymer concrete products meet the structural and corrosion needs required by the engineering community as well as the financial life cycle cost analysis and sustainability required by the municipalities. A 50 year warranty provides the industry with a comfort level previously unknown to municipal entities. Whether you are working on a sewer rehabilitation project via manhole rehabilitation inserts, or placement of new polymer concrete manholes, wet-wells, lift stations or specialty structures, we have a polymer concrete product to meet your needs.



404

Aquam Pipe Diagnostics

Globally used technology for potable water, gas and industrial pipeline investigations focusing on asset assessment, pipeline CCTV and in-line leak detection.



Foyer near Registration

AWWA

Dedicated to the world's most important resource, AWWA sets the standard for water knowledge, management and informed public policy. Stop by our booth to review the latest AWWA Standards and manuals. Drop your card in the basket for your chance to win! Learn more about AWWA resources at www.awwa.org/ACE.



Foyer near Registration

Benjamin Media

BMI currently publishes eight trade magazines: Compact Equipment, NASTT's Trenchless Today, North American Oil and Gas Pipelines, Solar Builder, TBM: Tunnel Business Magazine, Trenchless Technology, UIM: Water Utility Infrastructure Management and Utility Contractor. BMI is committed to online and interactive media by enhancing its print media with innovative and informative online content and mobile apps.



215

Blacoh Surge Control

Blacoh Surge Control provides customized system-wide engineered solutions with our system modeling, proof of design, and large pressure vessels used in surge protection, pressure regulation, storage, and pump control.



515

Carboline Company

Carboline Company is a St. Louis-based coatings manufacturer with global reach. The company, founded in 1947, produces high quality performance coatings, linings and fireproofing products in more than 20 manufacturing facilities around the world. Carboline's cutting-edge research and development center is a reflection of its commitment to remaining at the forefront of the protective coatings industry.



115

Cardno

Cardno is a professional services company, offering a wide range of integrated engineering, infrastructure, environmental, scientific consulting, and field services for public and private clients.



506

Charlotte

Charlotte is the world leader in the design of bladder-type pressure tanks used in potable, raw and wastewater applications. Our tanks are used in a wide range of applications such as surge protection, pressure regulation, pump cycle control and pressurized storage.



409

Chemline, Inc.

Chemline is a formulator and manufacturer of polyurethane and polyurea fast-set spray coatings, with AWWA C-222-08 and NSF 61 Certified products.



415

ConShield Technologies Inc.

ConShield protects your concrete sanitary sewers from microbiologically induced corrosion and offers economical and effective waterproofing protection of new and existing concrete structures through our Crystal-X product line. 877-543-2094; www.conshield.com



610

Construction Product Marketing

CPM is an Arizona based company that provides solutions for valves, pipeline assessment and rehabilitation, leak detection, potable water CCTV, pipeline monitoring, and air valve assessment and solutions.



208 & 210

Contech Engineered Solutions

Contech Engineered Solutions LLC is a leading provider of site solutions for the civil engineering industry. Contech's portfolio includes bridges, drainage, retaining walls, sanitary, stormwater, erosion control and soil stabilization products. To contact one of Contech's 50 offices or 300 sales and product professionals nationwide, visit www.ContechES.com or telephone 800-338-1122.

614

Cretex Specialty Products

Cretex Specialty Products is the innovator and leading manufacturer of Internal and External Manhole Frame-Chimney Seals and has been providing quality products for over 36 years with a focus on stopping or preventing inflow and infiltration in sanitary sewer manholes



209, 211, & 213

Diamond Plastics Corporation

Diamond Plastics manufactures two profile products, an internal joint restraint product and solid wall PVC pipe for pressure & gravity flow applications through 60" in diameter.



513

Dr. Edward J. Walter & Associates Inc

DRW Associates is an industry leader in the vibration and acoustical monitoring field. We are also a leading distributor of Instantel equipment for rental and sale.

308

Ductile Iron Pipe Research Association

Since its inception in 1915, DIPRA has provided accurate, reliable engineering information about cast iron, and now Ductile Iron Pipe, to utility and consulting engineers.

507

Duromar

Since 1968, Duromar Repair & Maintenance Coatings has specialized in 100% Solids, Zero VOC Engineered Protective Coatings. While outperforming conventional coating systems, Duromar's products are both safe for the user and non-toxic to the environment.

408 & 410

Echologics

Echologics is part of Mueller Water Products' Intelligent Water Technology portfolio of solutions that actively diagnose, monitor and control the delivery of safe, clean drinking water to consumers and businesses, and deliver information that enables water systems to make smart decisions concerning their existing water infrastructure and plan for the future.

411

Envirologics Engineering Inc.

The Tomahawk System cleans old encrusted pipes using abrasives in a high-volume, low-pressure airstream in preparation for airborne lining or other lining methods.

212

Eos Positioning Systems, Inc

Eos designs and manufactures high-accuracy GNSS receivers for the BYOD (Bring Your Own Device) market. The Arrow series fully supports iOS, Android & Windows devices.

214

ESRI

Manage, plan, analyze, map, monitor and communicate from one technology platform. Seize the power of location with Esri's ArcGIS Platform.

613 & 615

Fibwrap Construction Services, Inc

Fibwrap is your complete source for structural repair, strengthening and restoration. Fibwrap specializes in the application of advanced composites and is certified in the installation of Fyfe Company's Tyfo® Fibwrap® system.

500

Garney Construction

Garney Construction is a 100% employee owned company with 55 years of experience in constructing water and sewer pipelines and treatment facilities, serving the public, private, and industrial markets.

314

Geo Stabilization International

GeoStabilization International® is the leading geohazard mitigation firm operating throughout North America. Our passion is to develop and install innovative solutions that protect people and infrastructure from the dangers of geohazards.

302

Georg Fischer Pipe Systems

GF Piping Systems develops, produces and markets a comprehensive range of piping systems and components in a variety of materials used worldwide to transport water, gases and aggressive media. Delivery of the products – whether fittings, valves, measurement and control technology, pipes or jointing technologies – is always fast, flexible and dependable.

717

Globo-SA, Inc

Globo-SA, Inc is a leading technological company which collective force is committed to advancing human progress. There is a wide variety of industries that the company's advancement has influenced and continue to improve.

504

Hartman Walsh Industrial Services

With 67 years of experience & the ability to work nationwide, Hartman Walsh is an industry leading coatings company in asset protection & corrosion control.

305

Hibbard Inshore LLC

Hibbard Inshore provides underwater inspection and maintenance services using Remotely Operated Vehicles. They perform long tunnel and pipeline inspections to 23+ km as well as bulkheading, debris removal, leak repair, marine surveys and remote construction. Using robotic vehicles can solve complex issues without dewatering or placing divers in harm's way.

111

HJ3 Composite Technologies, LLC

HJ3 Composite Technologies provides the most comprehensive line of strengthening products in the world for fortifying and protecting structures against earthquakes, blast, and environmental damage, at a fraction of the cost of replacement. Not only are our products 40%-50% stronger than competitors per ply, they are designed to withstand high temperatures, abrasion, and aggressive chemical environments. HJ3 has completed over 25 years of large-scale testing to support the use of our products for concrete, steel, wood, and masonry. We are proud to service clients around the globe and look forward to the opportunity to support your infrastructure applications.

600

Hobas Pipe USA

Centrifugally Cast, Fiberglass-Reinforced, Polymer Mortar Pipes (CCFRPM). Strong and light with consistent dimensions, smooth surfaces and high stiffness. 18"-126" pressure and non-pressure classes.

306

HTS Pipe Consultants

HTS Pipe Consultants (HTS) is a Materials Testing and Consulting Firm specializing in the testing of cured-in-place polyester, polyethylene and epoxy resins, geosynthetic materials, and related construction materials.

714

HUESKER INC

HUESKER is the world's leading manufacturer of geosynthetics, agricultural, and industrial textiles. Providing solutions for Earthworks and Foundations, Roads and Pavements, Environmental Engineering, Hydraulic Engineering, Industry and Agriculture.

603

Hydromax USA

Hydromax USA is a professional services firm specializing in condition assessment and data collection for the country's aging water, wastewater and natural gas conveyance systems.

Foyer near Registration

Infrastructure Resources

IR's commitment to transforming the damage prevention industry through knowledge and educational tools, assists all stakeholders in understanding and staying mindful about procedures and best practices that significantly reduce the risk of damages while protecting our workplaces, communities, environment and lives.

414

Innovyze

World leader in Hydraulic and Water Quality Water, Sewer, Storm Water, Wet Infrastructure Rehabilitation Prioritization, SCADA integration, and Real-Time Analyses.

311

International Flow Technologies

International Flow Technologies specializes in Hot Tapping and Linestopping large diameter pipelines. We offer BlackValve, a SquareFlange® product, made of HDPE.

206

ISCO Industries

ISCO is your total HDPE piping solutions provider using a wide variety of materials for environmental, industrial, energy and municipal applications throughout the world. ISCO is employee-owned and our team will custom fabricate fittings, structures and quickly serve our customer's needs with large inventories of HDPE and fusion welding equipment.

EXHIBITORS

510

ITpipes

ITpipes enables clients to effectively collect, analyze, and manage their pipeline inspections, creating actionable intelligence from underground inspections! Plus, comprehensive, flexible integration into AMS/GIS systems.



307

J&S Valve

Contact J&S Valve for quality Metal & Resilient Seated Gate Valves in sizes 2"-108"; Plug Valves, Check Valves, Ball Check Valves, & Butterfly Valves.



309

JCM Industries, Inc.

JCM manufactures pipe repair, connection and branching fittings for all types and sizes of pipe. Emergency services and custom fitting fabrications are our specialties.



406

Jindal Tubular USA, LLC

Jindal Tubular USA, located in Bay St. Louis, Mississippi began manufacturing steel pipe in January 2009 utilizing state of the art equipment and technology. It is dedicated to large diameter submerged arc welded pipe of 18 to 120 inches in diameter with wall thickness up to 1" for the Oil, Gas, Midstream, Water Transmission, and Piling markets.

402

Lifelast Inc

LifeLast, a formulator and manufacturer of high quality, 100% solids, polyurethane linings and coatings, is the preferred choice in water/wastewater transmission and hydroelectric penstocks. "Innovation Through Formulation."



700

Magnum Piering Inc

Magnum Piering is an industry leader in manufacturing high capacity, high quality steel piling products for deep foundations and foundation repair applications.



401

Mid America Pipe

Family owned and operated for 50 years. One of the only privately held spiral-pipe manufacturers and fabricators in the USA. Low Overhead, Great Quality, and Competitive Pricing.



703 & 705

Miller Pipeline

Founded in 1953, Miller Pipeline has grown to provide a comprehensive range of pipeline contracting and rehabilitation services for natural gas, liquids, water and wastewater pipelines.



403

Milliken Infrastructure Solutions

Milliken Infrastructure provides trenchless solutions, including GeoSpray® geopolymer, PipeWrap, and Concrete Cloth™ GCCM, making it easier and more cost effective to repair and protect pipes and related structures.



312

Mistras

MISTRAS Group (NYSE: MG) is a leading one-source provider of pipeline protection solutions, spanning products, inspection, maintenance, monitoring, software, and engineering. www.mistrasgroup.com



706

Mobile Pipe Linings & Coatings, INC

Pipe coating applicator, capable of applying virtually all of the AWWA C200 coatings for corrosion protection of steel and ductile iron pipe.



313 & 315

MTA-Messtechnik GmbH

Service and products for water and wastewater, industrial and environmental technology. The optimization of hydro-technical systems their metrological monitoring, detection and cleaning is our business. We develop specialized services, products and measurement systems and see ourselves as a technology leader for special problems.



303

NASSCO, Inc.

Established in 1976, NASSCO is dedicated to setting the industry standards for the assessment and rehabilitation of underground infrastructure through training, education and networking. www.nassco.org. (410)442-PIPE



514

National Clay Pipe Institute

The National Clay Pipe Institute (NCPI) is a technical resource for design, installation and operation of vitrified clay pipe gravity sanitary sewers, ensuring the longest service life available.



301

Northwest Pipe Company

Northwest Pipe is the only nationwide ISO certified manufacturer of large diameter steel pipe and fittings for the water and wastewater markets.



412

Penspen

Penspen provides a wide range of services to the energy industry, including engineering, project management, asset management, asset integrity, training services, software and tools.



602

PICA Corp

PICA was incorporated in 2009 with the intent of providing In-Line Inspection services for the municipal water market, the municipal wastewater market and the power generation market (namely, nuclear). PICA developed the SeeSnake and Chimera line of tools which are supported by an electromagnetic technology called Remote Field Testing (RFT). The tools are for use in ferrous pipelines and they have successfully inspected many different industries.



708

Pipemedic by Quakewrap

PipeMedic® by QuakeWrap is the industry leader in the development of innovative, sustainable FRP pipes and pipe repair systems for new construction and repair of existing pipelines.



304

Primus Line

Primus Line is the manufacturer of a unique system for trenchless pressure pipe rehabilitation. PRIMUS LINE® products enable the cost effective trenchless rehabilitation of pressure pipelines for different media, such as water, oil & gas.



300

Pure Technologies

Pure Technologies is a world leader in the development and application of innovative technologies for inspection, monitoring and management of pipeline infrastructure.



609

Raven Lining Systems

We have recently expanded into the oil and gas market, focusing on the delivery of environmentally-friendly protection for secondary containment solutions. For nearly 25 years, Raven's innovative technology has stood the test of time and will continue to do so, well into the future.



704

Reline America

Reline America® is the manufacturer of Alphaliner®. Alphaliner is a fiberglass reinforced pipe liner cured using ultra violet light and is made in the USA.



407

Russell Corrosion Consultants, Inc.

RCC is a completely independent firm offering a broad range of corrosion consulting services to every industry, throughout the United States and the world. We like to help our clients navigate to prevention instead of reaction, we assist them in protecting their assets not losing them, we demonstrate how our clients can be better prepared to face their corrosion issues, as neglect is not a solution.



605

SAK Construction, LLC

SAK delivers and installs the most advanced, field-proven products to solve your most challenging pipe rehabilitation and large-diameter tunneling boring needs."



702

Sanexen

Sanexen Environmental Services inc. is a contractor and consultant in contaminated site remediation and Water Main Rehabilitation. Our team of scientists also performs studies and assessments related to other environmental issues.



502

Seal for Life Industries

ANODEFLEX, COVALENCE, POLYKEN, POWERCRETE and STOPAQ, SFL offers the broadest and strongest corrosion prevention products lineup in the market.



612

Sekisui SPR Americas, LLC

SEKISUI SPR Americas manufactures liner for trenchless pipe rehabilitation, perfect for water, pressure sewer, or gravity pipe networks – high quality, cost-effective, and environmentally friendly solutions.



310

Sewer Vue Technology Corp.

SewerVUE provides critical in-pipe manned entry and patent-pending "Surveyor" robotic Pipe Penetrating Radar (PPR) inspections.



604

Simpson Gumpertz & Heger Inc. SGH

SGH is a national engineering firm with more than 25 years' experience in condition assessment, structural evaluation, failure risk analysis, failure investigation, and repair of pipelines.



109

Sherwin-Williams

Sherwin-Williams offers a complete line of tank linings and coatings systems for wastewater treatment environments, potable water storage facilities, sewer infrastructure rehabilitation and secondary containment.



100, 103, 200, & 202

SippTech

SippTech is truly unique in that we are the only SIPP company globally to conceptualize, design, engineer and manufacture robotic lining systems and develop and manufacture proprietary lining polymeric. The result – a synergistic collaboration providing revolutionary, reliable robotic and polymeric systems to the marketplace.



512

Skyline Steel

Skyline Steel is a premier steel foundation supplier and manufacturer of H-piles, Pipe Piles, Steel Sheet Piles, Geostuctural Products, Piling Accessories, and Structural Sections. Visit skylinesteel.com.



204

Sprayroq

Sprayroq develops and manufactures fast-curing structural and chemical-resistant polyurethane coatings for the rehabilitation and protection of underground infrastructure. Our trenchless technology solutions extend asset life through corrosion control, abrasion resistance and structural reinforcement. For more than two decades, Sprayroq has provided long-term infrastructure solutions worldwide.



707

STI-SPFA

STI/SPFA is a trade association representing fabricators of steel construction products and their suppliers. Member companies produce steel storage tanks, field erected water tanks, pressure vessels and heat exchangers, and pipe and pipelines.



400

STRUCTURAL TECHNOLOGIES

STRUCTURAL TECHNOLOGIES, a Structural Group company, develops, markets, and integrates proprietary products with specialty engineering services to improve, protect, and enhance infrastructure.



505

Syrinix

Syrinix is an award-winning leader providing intelligent pipeline monitoring solutions, transforming the way utilities manage their networks by combining high resolution data with automated analysis and alerts.



201 & 203

The Plastics Pipe Institute

The Plastics Pipe Institute (PPI) is the major trade association representing here the Municipal and Industrial Division and high-performance PE4710 for water, wastewater, trenchless and open cut construction



611

Thompson Pipe Group - Flowtite

Thompson Pipe Group engineers, manufactures, and delivers corrosion-resistant Flowtite® FRP for pressure and waste water applications along with our core concrete pipe and box businesses. Durable and cost efficient, learn why contractors are demanding and more owners and engineers are specifying Flowtite® at www.flowtitepipe.com



607

Trenton Corporation

Since 1949, Trenton Corporation has provided excellent anticorrosion coating systems for a variety of environments.



508

TT Technologies

TT Technologies is a leading manufacturer of trenchless technology equipment for pipeline installation with Pipe Ramblers, HDD Assist/Extraction equipment, Pipe Bursting and Pipe Cracking Systems.



405

U.S. Pipe

U.S. Pipe, a Forterra Company, is the leading supplier of Ductile Iron Pipe, Concrete Pressure Pipe, Welded Steel Pipe, and Fabricated items.



Exhibit Hall Location: Grand Canyon 1-8 Ballroom

Sunday, August 6, 2017	
9:00 a.m. - 4:00 p.m.	Exhibitor Move-In
6:00 p.m. - 7:30 p.m.	Welcome Reception
Monday, August 7, 2017	
9:30 a.m. - 4:30 p.m.	Exhibit Hours
11:00 a.m. - 1:30 p.m.	Lunch
3:00 p.m. - 4:30 p.m.	Afternoon Networking Break
Tuesday, August 8, 2017	
7:00 a.m. - 4:30 p.m.	Exhibit Hours
7:00 a.m. - 8:00 a.m.	Continental Breakfast
9:30 a.m. - 11:00 a.m.	Morning Networking Break
3:30 p.m. - 4:30 p.m.	Afternoon Networking Break

Move out Hours 4:30 p.m. - 7:00 p.m.

Underground Construction

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Underground Construction is the market leader for in-depth coverage of the North American underground infrastructure industry. Articles include case studies, equipment reports, market analysis, revealing surveys and substantive editorial coverage of issues and regulations. Edited for decision makers, it provides up-to-date, essential industry information.

101

Uni-Bell PVC Pipe Association

Our mission is to promote use of longer-life, lower-maintenance, corrosion-proof PVC piping in water and wastewater systems – for real sustainability, strength and long-term asset management.



601

Val-Matic Valve & Mfg. Corp

Val-Matic® Valve & Mfg. Corp. is a leading manufacturer of check valves, quarter turn shut-off valves and air valves for water/wastewater, industrial and building markets. Valve types include Tilted Disc®, Dual Disc®, Swing-Flex®, Surgebuster®, Silent Check Valves, Eccentric Plug Valves, AWWA Butterfly Valves, Air Valves, Foot Valves, VaultSafe® products, Ener-G® AWWA Rubber Seated Ball Valves, Smart Control Systems, and QuadroSphere® Trunnion-Mounted Ball Valves.



710

Victaulic

Victaulic is the leading producer of mechanical pipe joining solutions. We build technologies and provide engineering services that address the most complex piping challenges faced by engineers, site owners, contractors and distributors.



712

WINFAB

WINFAB is a manufacturer of geotextile fabrics for civil engineering and environmental applications. Our industrial fabrics are designed to meet today's advanced engineering requirements for Stabilization, Separation, Filtration, Reinforcement and Erosion Control.



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Misterly



Jim
Harris



Joanne
Prince



Andrew
Bursey



Doug
Smith

► **Monday 8/7/17 10:30 am**

JEA Scores Twice—2 Major HDDs Launched From
Jaguars Stadium Parking Lot
Christine Ellenberger and Michelle Macauley

► **Monday 8/7/17 4:30 pm**

Direct Pipe Round Table Discussion
James Chae and Michelle Macauley

► **Tuesday 8/8/17 9:00 am**

Overcoming the Challenges of Pipeline Conflicts on a
Major Interstate P3
Grant Misterly and Christine Ellenberger

► **Tuesday 8/8/17 11:30 am**

Underground challenges on the Wilburton Sewer project:
complex design elements are put to the test during construction
James Chae

► **Wednesday, 8/9/17 8:30 am**

Increasing Sustainability in Small Utilities through GIS
and Asset Management
Jim Harris

► **Wednesday 8/9/17 9:00 am**

MDWASD Tunnels Downtown Miami—Fast Tracked Design-
Build for Large Diameter Gravity Sewer Microtunnel
(Gravity Sewer Interceptors for Master Pump Station No. 3)
Joanne Prince and Andrew Bursey

► **Wednesday, 8/9/17 9:00 am**

Can Transmission Pipelines and Interstate Highways Coexist?
Formulating the Flagstaff Red Gap Pipeline Route within the
I-40 Corridor
Doug Smith

Wilburton Sewer in Bellevue, WA



MDWASD Tunnel in Miami, FL



For more information contact: **James Chae** | james.chae@jacobs.com | 425.990.6832

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COOPERATING ORGANIZATIONS

Global Institute for Energy, Environment and Sustainability (GIEES)

SAVE THE DATE



PIPELINES 2018 CONFERENCE

Toronto Canada | July 15 – 18

KEY DATES

Abstracts due: September 26, 2017

Draft papers due: January 17, 2018

Registration opens: January 24, 2018

Final papers due: March 31, 2018

Revitalizing Global Underground Utility Infrastructure



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