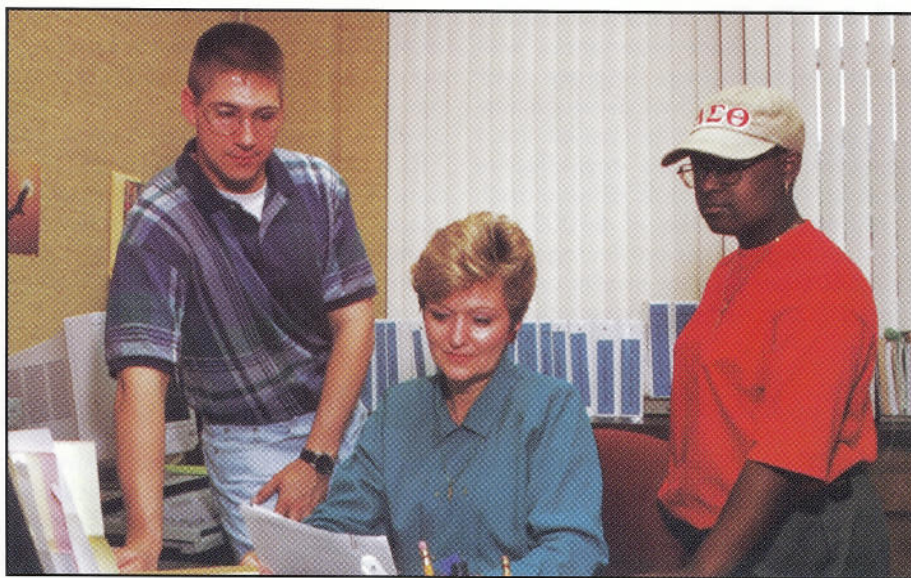




Trenchless Technology Center Newsletter

June 1996



Daphne Harrington, TTC administrative assistant, reviews inquiries with student workers (l-r) Joshua Rogers and Karen Piper.

A New Venue for TTC

The trenchless industry has grown significantly in the past several years, and many associations and periodicals have emerged to serve the industry and its associated specializations. When the Trenchless Technology Center (TTC) first started in 1989, many of these associations and periodicals did not exist. The center began in 1993 to publish its own newsletter to keep interested parties abreast of industry changes and research and educational programs at the center.

This newsletter has not been published in the past couple of years due to the cost and effort required on a regular basis to prepare such a publication, maintain a current mailing list and pay for mailing costs. We are now in the fortunate position of being able to provide information on the center's programs on a quarterly basis through publication space provided by *Trenchless Technology* magazine. We think this will be an excellent way to provide

regular information about ongoing research, education and technology transfer activities at the center.

The format of the newsletter will vary according to the nature of TTC activities and progress on research projects. Typical items will include updates on research activities proposed, in progress and recently completed; upcoming TTC educational and technology transfer activities; and special news about the TTC, its faculty and staff, and its industry, academic and public partners.

On-Line Project Begins

The largest new project in terms of TTC activity will involve field and analytical studies of ground movements and vibration associated with on-line pipe replacement.

This work is intended to supplement previous studies in Europe on dynamic and static ground movements resulting from pipe breaking and any subsequent upsizing of pipe diameter.

By further refining the safe limits for replacement in terms of soil type, groundwater conditions, type of pipe being burst, degree of upsizing, proximity to existing services, depth below the street, etc., it is expected that many of the concerns expressed by owners and consultants about the use of the techniques will be allayed and attention directed to the particular circumstances where special precautions (such as local excavation to isolate an adjacent service) need to be used.

The cost advantages inherent in on-line over open-cut replacement in many circumstances, and the resulting potential growth of this market, make the improved understanding of ground movements and impacts on adjacent structures worthwhile.

The project has been selected for funding by the Louisiana Educational Quality Support Fund and is supported by a broad range of industry partners.

Firms supporting the project are British Gas, Houston; CSR Pipeline Systems, Houston; Iseley Enterprises, Indianapolis; Kinsel Industries, Houston; Miller Pipeline Co., Indianapolis; Earth Tool Corp., Oconomowoc, Wis.; Roy F. Weston, Inc., Auburn, Ala.; and TRS Ltd., Calgary, Alberta.

The TTC and Louisiana Tech University are also supporting this project with matching effort and funds. The project time period is from July 1, 1996, to June 30, 1997 and is being led by Dr. R. Sterling, Dr. P. Hadala and Dr. F. Akl.

Industry Advisory Board

Bellcore
Chester, N.J.

BRH-Carver, Inc.
Houston, Texas

Hobas Pipe USA, Inc.
Houston, Texas

Insituform Technologies, Inc.
Memphis, Tenn.

Lamson Nylon Pipe
Cleveland, Ohio

Soltau Microtunneling
Charleston, S.C.

Trenchless Technology, Inc.
Peninsula, Ohio

Roy F. Weston, Inc.
Auburn, Ala.

CSR Pipeline Systems
Houston, Texas

Gulf Coast Trenchless Association
Houston, Texas

H.E.R.C., Inc.
Phoenix, Ariz.

Akkerman Manufacturing, Inc.
Brownsdale, Minn.

TTC Evaluates its Role in the Industry

To keep up with the changes in the industry, it is necessary for the TTC to continue to evaluate its most effective role and how to achieve that role.

The reemergence of the newsletter in its new venue and the integrative proposal activity described above are part of that effort. A new strategic plan has been under development in conjunction with the TTC's Industry Advisory Board and its executive committee has been under way since January.

This is a follow-up to the formal mission statement developed last year: The mission of the Trenchless Technology Center is to serve as a trenchless technology focal point and leader. The Trenchless Technology Center will be an independent source of knowledge, research and education for industry, academia and consumers of trench-

less technology.

The strategic plan involves several areas aimed at increasing the level of R&D support for the industry and technology transfer to the engineering and public works communities.

One new direction for the TTC that is intended to serve both functions is to enable municipalities and public works agencies to form a consortium with the TTC. The consortium enables members to share experiences with trenchless technology, improve their access to technological developments and support activities that benefit them collectively in a more cost-effective manner than each could achieve itself.

A participation fee of \$1000 per year for large municipalities/agencies and \$500 per year for smaller organizations is planned and a description of

specific consortium activities/benefits, such as an annual sharing of experiences is being developed.

For industry support, the TTC will continue to have its primary contact through the support of the Industry Advisory Board (IAB). This group has supported, guided and nurtured the TTC since its formation in 1991.

Many other companies have expressed interest in supporting the work of the TTC through research or educational or scholarship funding, but are not able to participate at the full IAB level. To respond to this interest, the TTC is developing an annual and one-time donor program with appropriate recognition and benefits for interested donors. Anyone interested in this program should contact the TTC office, as full details are being prepared.

Water Main Rehab, Renewal Demonstrated

The objective of this research is to demonstrate trenchless technologies for the rehabilitation, replacement or extension of water transmission mains.

The demonstration will evaluate the cost-effectiveness of various trenchless methods along with their social and economic benefit of avoiding traffic disruption, public inconvenience and small business customer interruption.

The TTC is participating as part of a research team led by Roy F. Weston, Inc., which was the successful responder to a Request for Proposal from the AWWARF. This work involves several components and the effort related to on-line replacement techniques applied to water mains will complement the LEQSF project described above.

The project has a broadly based

project advisory committee convened by the AWWARF. The city participants are Houston and Chicago. The contractor participants are PIM Corp., Piscataway, N.J.; PM Construction, Deckerd, Tenn.; TRS Ltd., Calgary, Alberta; Bondrill, Guelph of Ontario; Performance Pipelining, Inc., Ottawa, Ill.; and American Ductile Iron Pipe, Birmingham, Ala.

Trenchless Research Program Gets a Boost

The TTC continues its drive to bring a substantially increased level of research funding to the underground construction industry and specifically to the trenchless field.

The construction industry as a whole spends far less than most other industry sectors on research and development. The procurement system for design and construction in the public works arena severely discourages individual research by consultants and contracting firms. The result has been an eroding of the United States competitive position in many underground technologies relative to other areas of the world.

One solution to this problem that

can adapt to the U.S. situation is cooperative research programs among universities, industry, public works agencies, and state and federal government. This is what the TTC was founded to generate, and it continues to push for expanded funding for such R&D activities.

We are currently working with Louisiana State University, the University of Massachusetts at Lowell and the University of Houston to develop a program to further research in many aspects of our subsurface utility and transportation systems. Industry, government or public works partners interested in participating in this research should contact the TTC.

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