





# LOCAL GROUP NEWS

## ALBERTA

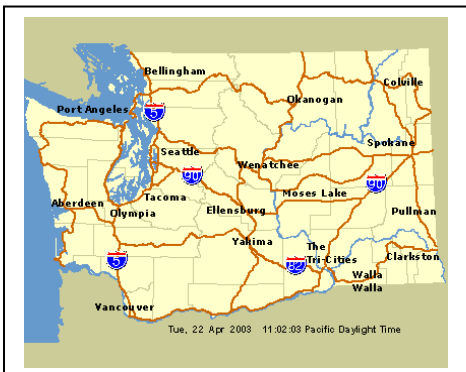


The Edmonton Region has conducted another four successful Technical Luncheons in 2007. The Luncheons were conducted monthly from January to April 2007. These Luncheons have been well attended averaging around 40 participants for each event. The Edmonton Region AGM was conducted after the Luncheon on April 26, 2007. Planning for the 2007-2008 Technical Luncheon Program has started.

The Calgary Region has conducted several Technical Luncheons in early 2007 as well. Two Luncheons were conducted and the events were well attended. More Technical Luncheons will be conducted in fall 2007. Planning for the 2007

Alberta Trenchless Technology Symposium has started. The 2007 Alberta Trenchless Technology Symposium will be staged in Calgary in November 2006. The training module on HDD will also be conducted in conjunction with the Symposium. This is the 10<sup>th</sup> Anniversary for the Alberta Trenchless Symposium.

## WASHINGTON



The 2006 Seattle Trenchless Technology Symposium was conducted on December 15, 2006. Despite the biggest wind storm of the century and wide spread power outages, the Washington Region managed to stage a very successful event. More than 100 people showed up for the event in spite of the stormy weather. The successful Symposium has demonstrated the magnitude of interest in trenchless technology within the region. In addition, a HDD Good Practices Guidelines Seminar is

planned for July 15 to 16, 2007 in Seattle. Planning for the 2007 Seattle Trenchless Technology Symposium will start soon.

# NORTHWEST TRENCHLESS PROJECTS

## **CRESWOOD NEIGHBORHOOD REHABILITATION AND UPGRADING**

**Herman Ng, Gary Fei and Sean Novak, ISL; Ken Chua and Michael Kan, City of Edmonton  
(No Dig 2007 Paper A-2-02)**

Crestwood neighborhood is one of the older neighborhoods selected by the City of Edmonton Neighborhood Improvement Program for rehabilitation in 2006/2007 based on an integrated approach. Crestwood neighborhood encompasses approximately 80 ha of area and consists of approximately 33 km of sanitary and storm sewers. The rehabilitation program involves repair, renovation and replacement of defective and insufficient capacity sewer pipes.

Physical condition assessment and hydraulic modeling were carried out for this assignment. For condition assessment, the total, mean and peak scores were used to determine the five structural ratings of sewer pipes. The rehabilitation program only considers rehabilitation for sewer pipes with a structural rating of 4 and 5. The remaining sewer pipes will be scheduled for future assessment by CCTV inspection. For hydraulic upgrading, the theoretical load and hydraulic grade line factors were used to determine the 5 hydraulic condition ratings. The City of Edmonton's unique assessment systems and prioritization method will be discussed.

Various rehabilitation methods for spot, partial and full relines of sewer pipes were investigated. The selection of the preferred rehabilitation method was based on a cost analysis. The paper will discuss the design of the lining based on the type of defect and ovality of sewer pipes.

For hydraulic upgrading sewer pipes, construction methods including open cut, horizontal directional drilling and pipe bursting were considered. The preferred method was selected based on the cost effectiveness and special condition of each sewer pipe.

## **HDD DESIGN AND CONSTRUCTION CHALLENGES OF BLAIR WATERWAY UTILITY RELOCATION**

**Mark Havekost, Jacobs; Scott Bickel, Port of Tacoma  
(No Dig 2007 Paper A-3-02)**

This paper presents design and construction challenges for four parallel HDD crossings beneath the Blair Waterway shipping channel at the Port of Tacoma. The Port's plan to widen and deepen the shipping channel required that utilities that crossed beneath and over the waterway be relocated outside the future channel limits. Horizontal directional drilling (HDD) methods were selected to install new utilities beneath the waterway in four parallel 2,200 ft long crossings. The crossings consisted of fiber optic and copper communication lines; a water line, 15 kV distribution lines; and a 115 kV transmission line. HDD profile constraints included, major unmapped underground utilities, timber piles from a former

Bridge and fender wall foundation, pile foundations for steel power line towers, and wood piles from abandoned port structures. A key HDD design consideration for the 115 kV transmission line was thermal evaluations to insure the power lines could operate at the desired amperes.

A fast tracked design effort and proactive coordination with utility owners was required so that these utility owners had enough time to install new utility lines prior to commencement of the widening work. In addition, vehicle and rail access to Port facilities had to be maintained at all times due to ongoing terminal operations and a major terminal expansion project being constructed around the HDD staging areas. HDD offered the best solution to addressing construction impact, cost, and schedule constraints. The four crossings were completed in approximately 3 months.

## **CITY OF CALGARY – DECISION TO APPLY PIPE BURSTING**

**Cliff Brady, City of Calgary; Wing Chan, Earth Tool  
(No Dig 2007 Paper A-4-01)**

Calgary, Alberta, Canada's Oil Capital, became a city in 1894 and has since grown into one of the most important business centers in Canada. As the city prospers, it attracts workforce from neighboring provinces and also from other countries. This influx of people has contributed to the continued growth of the local economy to what it is today, the richest province in Canada. As the city grows, more homes, industries and commercial buildings are built to cater to the ever increasing population and business demands which in turn require the installation of water distribution mains, sanitary sewers, and gas pipelines, as well as other necessary underground infrastructure. Many of these buried utilities are now aging and are in need of rehabilitation, repair, replacement, and even upgrading.

Traditional open cut replacement methods for underground pipeline rehabilitation and replacement are no longer the only choice for this city of a million people. If employed, long traffic delays, frustrating detours, loss of access to homes and businesses, unsightliness, noise, and disruption to the general public. Such constraints have encouraged the City of Calgary to consider the applications of trenchless technologies to address its underground infrastructure improvement needs. This paper shall discuss the current state of the City's sewers, the improvement program in place to meet the continuous demand of a very rapidly growing population and economy, and the application of pipe bursting techniques for trial pilot projects and ultimately for replacement of the sanitary sewer in a challenging site known as the 5<sup>th</sup> Street SW in downtown Calgary. This paper shall further highlight the efficiency, cost effectiveness, and social impact of using the pipe bursting process, will discuss its limitations, and will review the steps taken to ensure that future applications of this trenchless pipeline replacement process will serve the public even better.

## North American Society for Trenchless Technology Northwest Chapter 2007 Trenchless Project of the Year – Alberta

The North American Society for Trenchless Technology (NASTT) – Northwest Chapter is accepting applications for the 2007 Trenchless Project of the Year – Alberta. Projects submitted for consideration as project of the year must be located within Alberta, utilize at least one form of trenchless technology, and be a recent project (i.e. commenced, in progress, or completed in 2007). Projects may only be submitted for consideration as project of the year once; the same project may not be submitted in subsequent years. Applicants are not required to be members of NASTT.

To apply, access the Award Application Form at the NASTT – Northwest Chapter website at <http://www.nastt-nw.com/>. The form is in Adobe PDF format. If you don't have Adobe Reader, you can download a free copy of the software from the Adobe website at <http://www.adobe.com/products/acrobat/readstep2.html>.

Please follow these instructions to complete the form:

1) *Applicant Information:*

Enter the name, company, and contact information for the primary applicant in the appropriate fields on the form.

2) *Co-Applicant Information:*

Enter the names, companies, and contact information for up to two co-applicants in the appropriate fields on the form (i.e. typically a variation of consultant, client, and contractor for the award application).

3) *General Project Information:*

Enter the project name, location, nature of the project (select the most applicable type from the drop-down menu provided in this field), approximate project value, and information on the trenchless technology(ies) involved.

4) *Detailed Project Information:*

Provide a detailed description of the project, up to 1,000 words in length, that validates the project as a candidate for project of the year. This information will form the basis of award selection by the independent review panel.

5) *Figures and Pictures:*

To attach figures or pictures to the application, click on the fields provided in this section. A pop-up window will appear to allow you to locate and select the file you wish to append to the application. Pictures and figures should be in .jpg or .tif format and should not be greater than 750 kb in size (each).

6) *Printing and Submitting the Form:*

Once the application form is complete, print yourself a copy of the form by selecting the "Print Form" button located on the bottom-right of the second page. You cannot save a copy of the form, so please print a copy of the application prior to submitting the application. Then select the "Submit by Email" button, located next to the "Print Form" button, to submit the application. An email will be set to you following submission to confirm the receipt of your application. If you do not receive a confirmation email within 2 days of submitting your application, please contact Dan Willems at [dwillems@nastt-nw.com](mailto:dwillems@nastt-nw.com).

Following the application deadline, an independent review panel, made up of industry professionals from out-of-province, will review the submissions and make an award selection in September 2007. The successful applicant will be notified of the award in early October.

If you have any questions, please contact Dan Willems at [dwillems@nastt-nw.com](mailto:dwillems@nastt-nw.com).

## 2007 No-DIG SHOW

The 2007 No-Dig Show was successfully held in the picturesque San Diego, California from April 15 to 20, 2007. The Town & Country Resort and Convention Center provides an excellent "family-friendly" venue for this event with plenty of on-site activities for all ages. The conference theme, "Riding the Wave of Trenchless Technology" is fitting given not only this year's location, but also the rise in popularity of adopting such methods for underground utility projects. The 2007 No-Dig show attracted over 1,000 participants and 125-130 exhibitors.

The Conference Program Committee has been working diligently to assemble a strong and informative technical program. We received a record 182 abstracts from which 112 were selected for presentation. In keeping with recent tradition, all of these papers will go through a rigorous peer-review process to ensure technical merit prior to publication in the conference proceedings.

We are looking forward to 2008 when No-Dig will be in Dallas, Texas from April 27 to May 2. The Gaylord Texan Resort and Convention Center combines both a conference center and hotel so you will want to get your reservations in early as this destination resort will fill up fast.

### ABSTRACTS REQUEST FOR 2008 NO-DIG SHOW

NASTT is now accepting abstracts for the 2008 No-Dig Conference & Exhibition, April 27-May 2 in Dallas, Texas. Abstracts from the following subject areas are of interest to the No-Dig Program Committee: Trenchless Research, Case Studies & Engineering Practice, Education & Training, Special Topics, and Municipal Issues.

[Submit your abstract with our easy online form.](#) Sorry we are not accepting abstracts via e-mail, regular mail or by fax. All abstracts must be submitted through the No-Dig web site. **Deadline: June 15, 2007.**

**Questions?** Please contact:

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### UPCOMING EVENTS

**July 15-16, 2007** - The HDD Good Practices Guidelines Seminar will be staged in Seattle, WA, USA.

**September 10-12, 2007** - The IATT and the ISTT invite you to the MEDITERRANEAN NO DIG "for a sustainable world", XXV<sup>th</sup> International Conference and Exhibition to be held in Rome, Italy.

**November 15-16, 2007** - 2007 Alberta Trenchless Symposium will be staged in Calgary, Alberta, Canada. This event will be the 10<sup>th</sup> anniversary for the Alberta Trenchless Symposium. The short course on HDD Good Practices Guidelines will be conducted as well. For more information please contact Duane Strayer at ph: 403-451-7666 or e-mail: [strayerd@ae.ca](mailto:strayerd@ae.ca)

**April 27 - May 2, 2008** - Mark your calendars for the 2008 No-Dig Show, April 27 - May 2 in Grapevine (Dallas), Texas at the Gaylord Texan Resort and Convention Center. For further information, please visit [www.nastt.org/nodig.html](http://www.nastt.org/nodig.html) or contact 2008 No-Dig program chairman Kaleel Rahaim at ph: 287-867-2817 or e-mail: [krahaim@interplastic.com](mailto:krahaim@interplastic.com)

### NASTT NW Chapter WEB Site

The NASTT Northwest Chapter Web site has been on-line since January 2004. The Web address is [www.nastt-nw.com](http://www.nastt-nw.com). Please log on to check for the latest news. Lists of companies in trenchless industry are also provided. Trenchless contractors, manufacturers and service providers are welcomed to add your name onto the list.

This is your newsletter. We are looking for articles, events, suggestions and ideas for the next issue. If you would like to receive the NORTHWEST NEWS, contact the editor. Letters to the editor are welcome.

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