NASTT’s 2012 No-Dig Show

Recap/Highlights – Part 1

by Cindy Preuss, PUG Chairman

March 20, 2012
Exhibit Hall: RAPIDVIEW

- **Panorama SI**
  - Eliminate need to enter MH for diameter and depth measurements
  - Videos at 14 inches per second
  - $160K
  - NASSCO friendly
  - Engineer/Owner does C.A. vs. inspector
    - Uniformity, consistency w/MACP ratings
  - CAD friendly, 3D view
  - 3D view shows variance in diameter as increase depth
  - Can zoom for measuring
    - Depth, length of cracks
    - shows rebar
    - drop MH configurations
Exhibit Hall: RAPIDVIEW

- IBAK LISY3 System (CCTV)
  - Can enter 6” mains
  - Launches up to 100’ lateral off up to 500’ main
  - Double price of 8” main systems
  - Must be circular
  - Can take off wheels to get through tight squeezes
  - So cal contractors
    - California Boring
    - Pro-Pipe
Paper F-5-02: Flood Grouting Sanitary Sewers for Infiltration Control

- Existing – concrete pipe
- 2 part silicate chemical mixture
  - Clean first
  - Fill entire system up w/S1 wait 40-45 mins
  - Fill entire system up w/S2, pump out
  - Combines with pipes, sets cementitious around pipe
- Non-structural: reduces fines & stabilizes pipe
- LL: S1 attacks rubber on plugs
  - Need to ensure plugs installed properly on side sewers
  - Conduct clean water tests ahead of time
  - Be prepared for spill response in case S1 migrates to surface
Fabric hose relining (non-structural repair)
- Seamless round-woven polyester hose w/PU or PE coating. Bonds permanently to host pipe
- CI, DIP, WS, PVC, AC
- NSF 61 rated, ASTM F2207
- 50 year life
- Line up to 1800’
- 600 psi max pressure W, SS
- 450 psi max pressure G
- ¾” to 40” diameter (hear 48” too)
- Maintains flow rate (~1/4” thick)
- Can bridge up to 2” steel pipe (corrosion damage)
- Ambient cure 1-2 days
Paper F-6-03: ROLLERCOASTER IN THE UNDERGROUND - REHABILITATION OF SEWER PRESSURE PIPELINES POSES SPECIAL CHALLENGES

Steps
- Take out of service/decommission
- Clean
- CCTV
- Install by inversion
- Ambient or UV curing
- Pressure test & CCTV
- Robotic service reconnection
- Return to service
Difficulties CIPP lining 6” pipe

- Issues getting equipment in to reinstate laterals – anything in the way prevented equipment from getting to laterals
- LL – tighten specs with language about appropriate (smaller) equipment for 6” mains.
Successful CIPP spot repair on 20% ovality pipe

Missing >120° pipe, then needs point repair before lining

- Tried to inject pressurized grout to stabilize, then full reline. Didn’t work.
- LL – Grouting resulted in further damage & open cut repair needed on 22’ deep segment
Trend toward Cap & Trade
- Cap carbon emissions
- Trade carbon credits

www.nasttghgcaculator.com

NASTT and NYSEARCH completing development of cadillac carbon calculator. First pilot expected this year!
Paper C-6-05: Fiber Optic Cure Verification (FCV) Ensures Quality, Longevity of CIPP Liner Installations.

- Monitoring temperature at a liner’s endpoints (the traditional method) provides no assurance that curing has happened everywhere (or anywhere) between.
- FCV monitors cure temperature continuously along the full reach of a pipe, yielding comprehensive real-time data.
  - Linear fiber-optic probe
  - Partitions a liner into zones of 1.5 feet
  - Monitors avg temp of each zone
  - Measurements are taken every 30 seconds and are accurate to within ±2° Fahrenheit
  - Distances of several kilometers
  - 3D plot, real time
Paper D-1-02: MULTIPLE HDD APPLICATIONS FOR PORTLAND AIRPORT DEICING ENHANCEMENT PROJECT

Jack R. Ostlund Jr., Port of Portland, Portland, OR
Barry Sarin, CDM Smith, Portland, OR
John N. Crippen, CDM Smith, Seattle, WA

- 6” FPVC + 24” FPVC
- Common borehole
- 24° entry, 15° exit
- 3800 lf
- 20 days, 13 hr pullback
- 1’ off target area
QUESTIONS?

THANK YOU!

Stay Tuned for Part 2 in April!