

UV-CURED FIBERGLASS CIPP FOR PIPES THAT CHANGE SHAPE by TRACK 1-A

UCT



Underground Construction Technology

International Conference & Exhibition

THE PRECISION GROUP



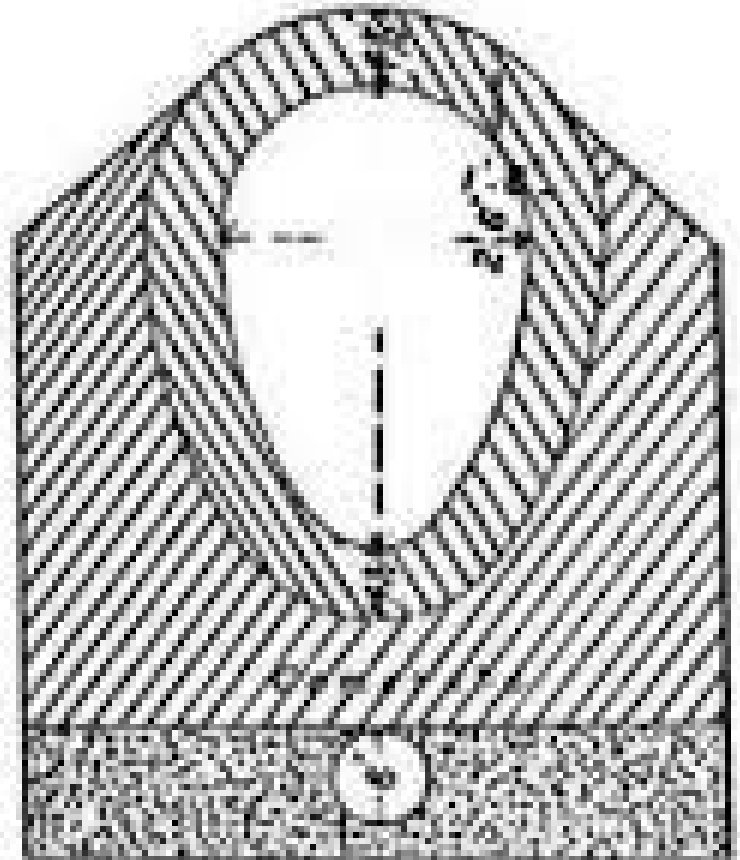
Dig and Replace – Not a Chance



Sewer Pipes that were intentionally made this way????



Oval or Tear Drop Design



Round



BASKET WITH FLAT TOP



WHAT ABOUT SHAPE AND DIAMETER MID PIPE CHANGES



Material / Size / Shape Changes



WHAT ABOUT ENVIRONMENTAL CHANGES TO SHAPE AND SIZE



ADD A LITTLE H₂S AND YOU GET



OR THIS



OR THIS...



The Solution

- UV Cured Fiberglass CIPP
- Strength – 1.7M TO OVER 3.0M PSI
- Advantages – NO Resin slugging, no styrene odors,
- Ability to change shape with same strength.
- Speed of cure

FORGET F1216 YOU HAVE TO GO FINITE ELEMENT FOR MOST OF THESE

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Simulation of Assem2

Date: Wednesday, December 21, 2016
Designer: BRIAN M. ROHAN, P.E.
Study name: STUDY1
Analysis type: Static

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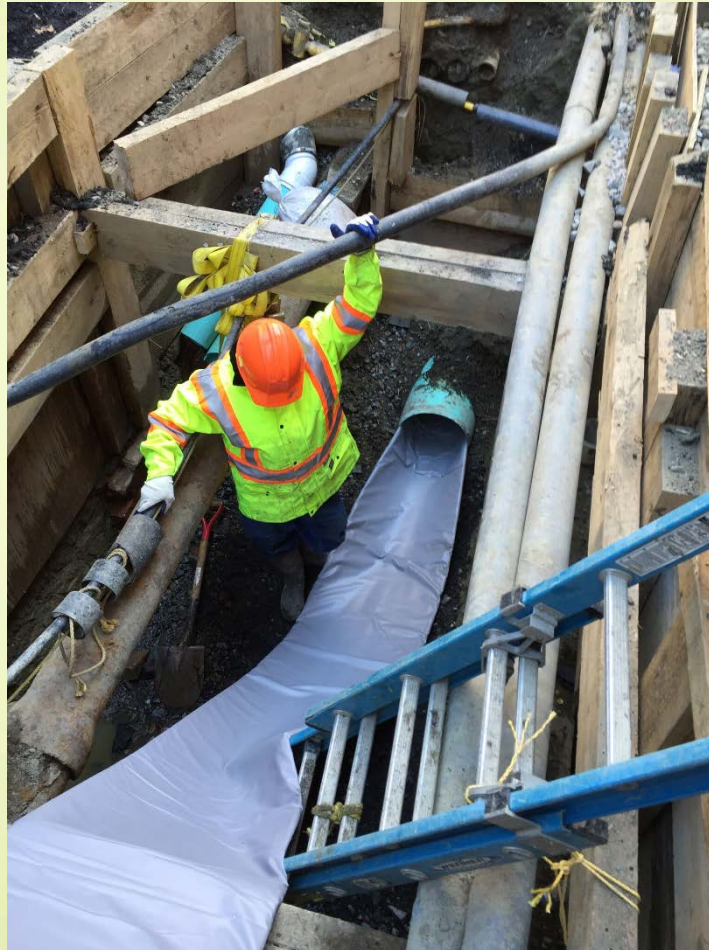
Description

FINITE ELEMENT ANALYSIS DESIGN OF SAERTEX LINER FOR 43 x 27 ARCHED CULVERT UNDER I-86 IN THE TOWN OF CAMPBELL. FACTORED LIVE AND DEAD LOADS ARE CONSIDERED ON A FIFTEEN FEET SAMPLE. THE SOIL MODEL UTILIZED WAS 30'-0" x 15'-0" x 15'-0" DEEP.

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Installation



HOW DO YOU CALCULATE THE PROPER LINER TO ORDER?

- MEASURE EVERYTHING AT LEAST TWICE
- CIRCUMFERENCE IS KEY
- ALSO TOP TO BOTTOM
- SIDE TO SIDE
- CONVERT CIRCUMFERENCE TO DIAMETER AND ROUND UP

SIDE BY SIDE

RCP 18" H2S



POST



SIDE BY SIDE

BEFORE



AFTER

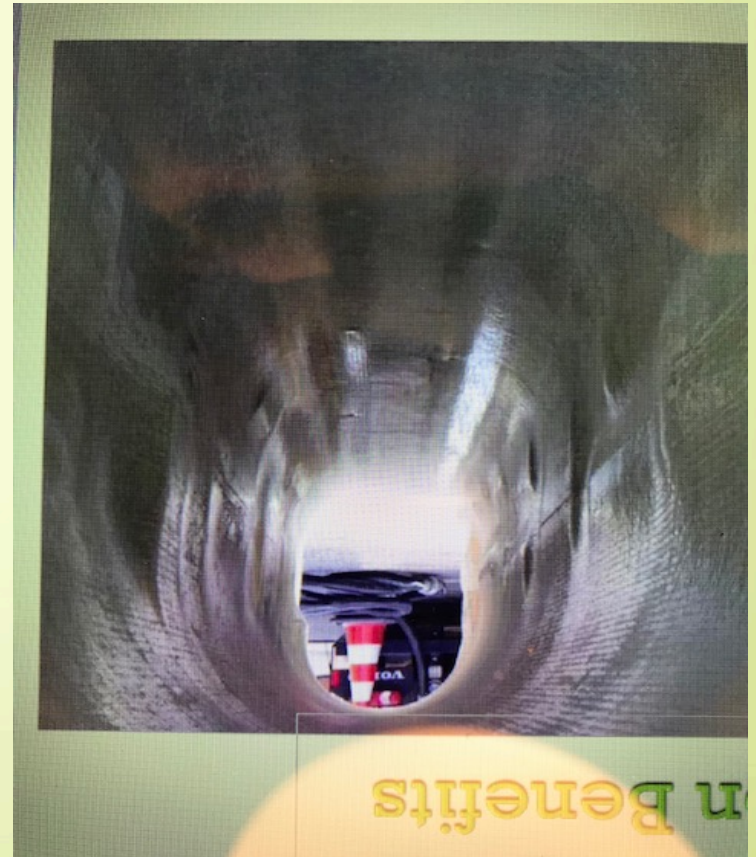


FLAT TOP

BEFORE



AFTER



ROUND TO OVAL

BEFORE

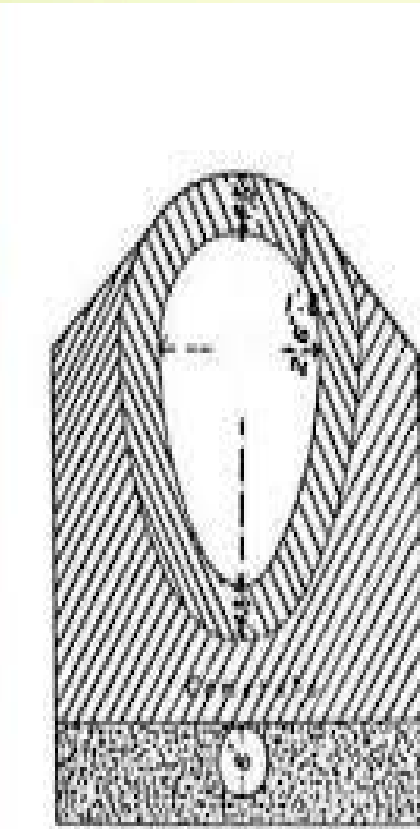


AFTER



OVAL PIPE / TEAR DROP

BEFORE



AFTER



63" RCP HORIZONTAL ELLIPSE



ADVANTAGES

- ◉ SMALL GEOGRAPHIC FOOT PRINT TO INSTALL UV CURED FIBERGLASS CIPP
- ◉ 70 YEAR LIFE EXPECTANCY
- ◉ SMALL AND UNIFORM WALL PROFILES
- ◉ ABILITY TO MORPH INTO HOST PIPE SHAPE AND FORM
- ◉ DESIGN TO FD WITH FEA
- ◉ SPEED

IN CONCLUSION

- ◎ IT'S ANOTHER TOOL IN YOUR TOOL BOX
- ◎ ABILITY TO HANDLE PROJECTS THAT OTHER TECHNOLOGIES MAY NOT BE ABLE TO
- ◎ LITTLE TO NO ENVIRONMENTAL IMPACT
- ◎ CURRENT ABILITY TO HANDLE 72" 22MM WITH STRENGTH OVER 3.2M PSI

PRECISION TRENCHLESS LLC

- ◎ 2016 Trenchless Tech Rehab Project of the Year Honorable Mention
- ◎ Installed worlds first UV Fiberglass CIPP NSF 61 Liner
- ◎ Currently has 2 offices in Syracuse, NY and Portland, Oregon
- ◎ Have 3 full time crews

Questions?

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