



PRESTWICK AND CLUBHOUSE NEIGHBORHOOD MEETING

January 18, 2012



VS ENGINEERING, INC.

Civil • Structural • Transportation • Environmental



Insituform[®]

Clean water for the world.

PROJECT NEEDS

- District experiences
 - High Infiltration Rates
 - Root Intrusion
 - Broken and Collapsed Pipes
 - Leaking Manholes

These Cause Increased Costs at
Lift Stations and Treatment Plant
Plus Increased Maintenance



+0220.7ft↑

WCCD

Avon

02223

Cobblestone Rd

02222

VCP Vitrified Clay Pipe, C Circular

+0202.0ft↑

WCCD

Avon

02217

Beechwood Circle

02219

VCP Vitrified Clay Pipe, C Circular

Roots Medium Barrell, from 02 to 10
o'clock, 25 %, within 8 inch: YES

+0159.1ft↑

WCCD

Avon

02257

Beechwood dr

02258

PVC Polyvinyl Chloride, C Circular

Obstacles Pipe Material, 35 % of
cross sectional area, from 09 to 03 o'clock,
Remark: Pipe through Main

+0081.3ft↑

WCCD

Avon

02245a

Beechwood Road

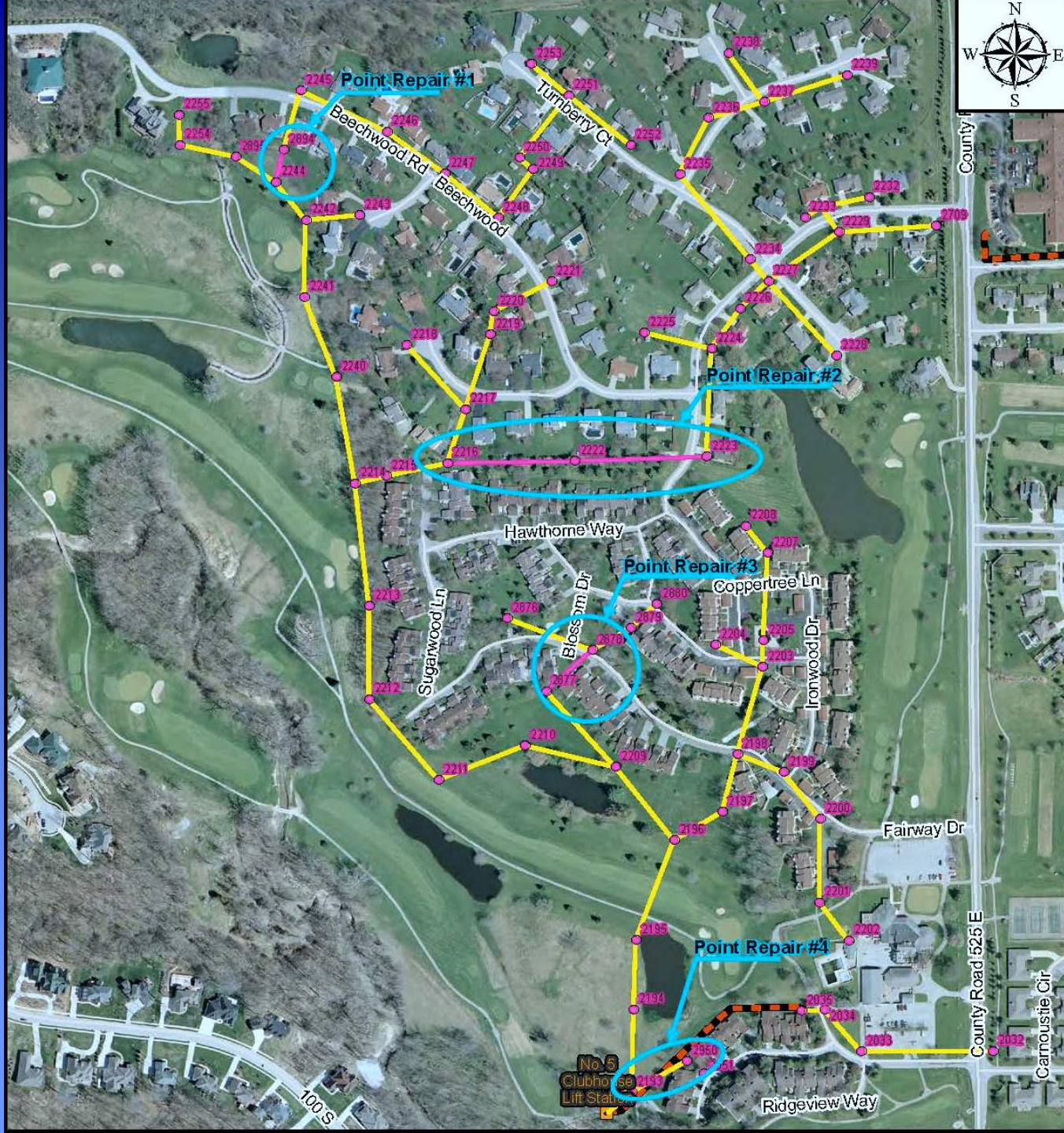
0244a

VCP Vitrified Clay Pipe, C Circular





— Gravity Sewers requiring CIPP



PROJECT EXPECTATIONS

- Reduce Inflow and Infiltration
- Restore Structural Integrity of the Infrastructure
- Reduce Future Maintenance and Repair Costs

Safety

- Insituform boasts a superior safety rating to its industry competitors
 - EMR rating is currently .84 compared to industry standard of 1.00
- Each Insituform employee is trained in safety measures and we continually aim for zero incidents company-wide
 - RIR for 2006 decreased to 2.89



What is CIPP?

- Developed in 1971, cured-in-place pipe (CIPP) is a trenchless technology developed by Insituform
- The end product is a jointless, seamless, pipe-within-a pipe that protects against spills, breaks and pipeline leakage
- Insituform has installed over 15,000 miles of CIPP and has been the industry leader for over 35 years



Benefits

- Reduces infiltration and exfiltration
- Restore structural integrity
- Eliminate joints, root intrusion and leaks
- Prevent sinkholes and surface settlement
- Suitable for irregularly shaped pipes and changes in pipe diameter
- Increase flow capacity
- Protect pipes from corrosion
- Increase pipe strength
- Reduce maintenance



Tube Manufacturing



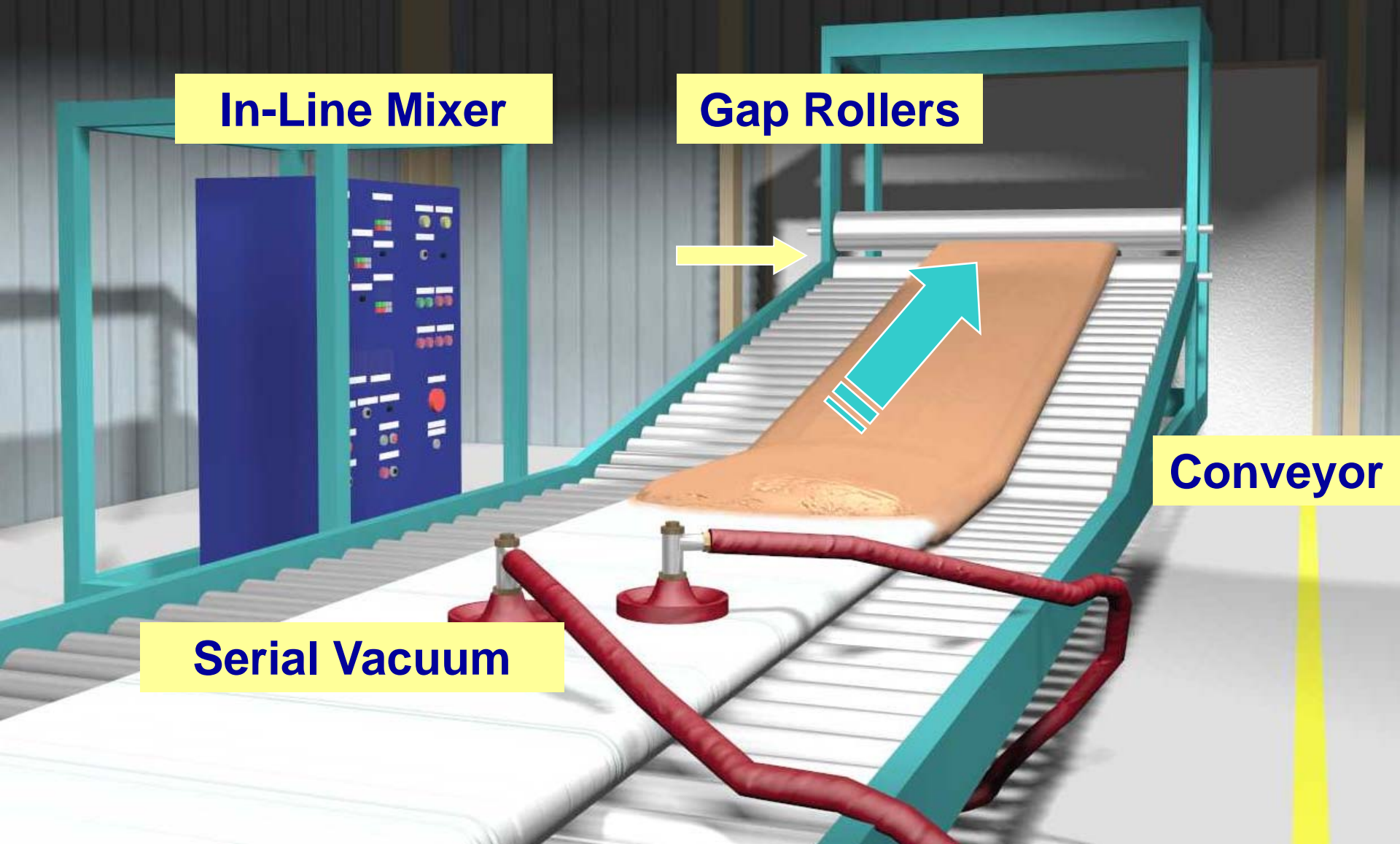
Tube Wet Out Process

In-Line Mixer

Gap Rollers

Conveyor

Serial Vacuum

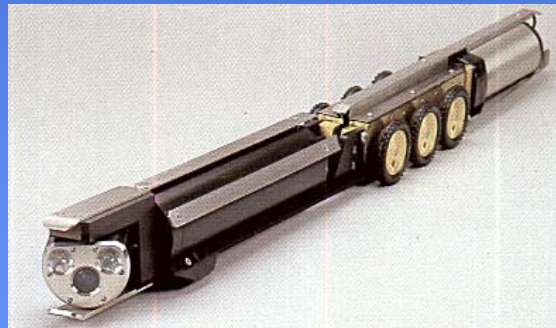


CIPP Installation

- Clean and Televis
- Manufacture and “wet-out” materials
- Install and cure CIPP
- Reinstate service connections and flow.

CCTV

- Pre-installation Inspection
- Identify Service Connections



CIPP Installation

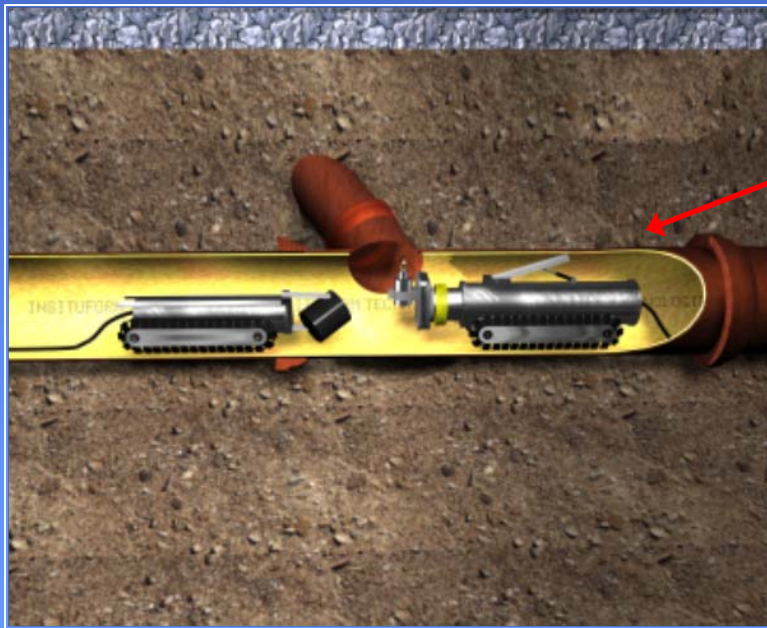


- The tube is inserted into an existing host pipeline
- The tube is inflated to the size of the host pipe
- The CIPP tube is cured
- Ends are cut



Curing

- Hot water or steam
- Laterals are reinstated using a robotically controlled cutting device



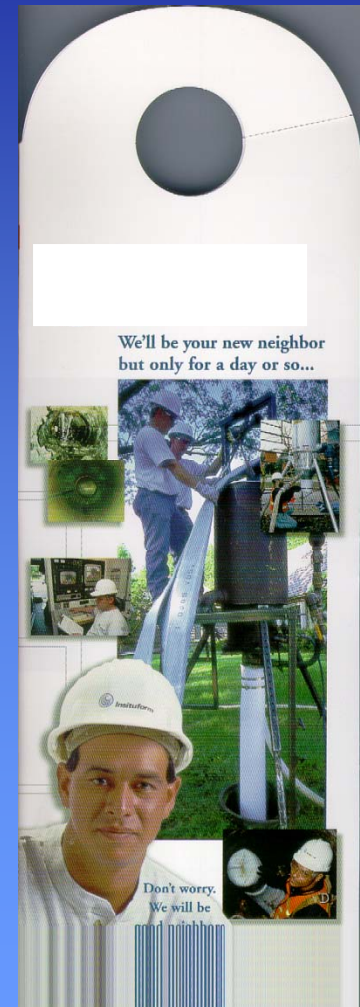
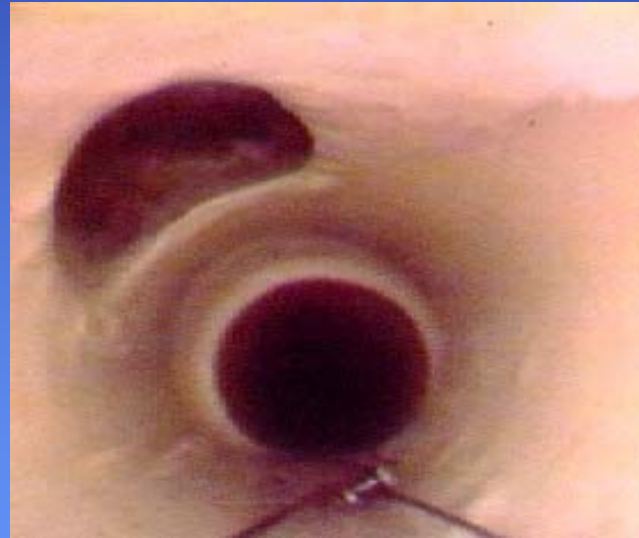
Service Lateral
Reinstatement

Air Inversion/Steam
Cure



Reinstatement of Service Connections

- Out of service - Written Notification
- Reinstatement



Before and After



Before

After





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Clean water for the world.

INSITUFORM CONTACT INFORMATION

Alex Sharpe, Project Manager – 317-281-3767

Jason Berry, General Superintendent – 317-695-4335

Jay Ferguson, Business Development Manager – 317-408-7136



Collect. Purify. Restore.

QUESTIONS?



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West Central Conservancy District (WCCD)
Prestwick Estates and Clubhouse Sewer Rehabilitation
2012

ID		Task Name	Duration	Start	Finish	Predecessors	Jan 29, '12							Feb 5, '12							
							T	F	S	S	M	T	W	T	F	S	S	M	T	W	T
1		Precon Meeting/NTP	1 day	Fri 1/27/12	Fri 1/27/12																
2		Submittals	10 days	Mon 1/30/12	Fri 2/10/12	1															
3		Mobilize for Cleaning	1 day	Mon 1/30/12	Mon 1/30/12																
4		8" CCTV	21 days	Tue 1/31/12	Tue 2/28/12	3															
5		10" CCTV	10 days	Wed 2/29/12	Tue 3/13/12	4															
6		12" CCTV	10 days	Wed 3/14/12	Tue 3/27/12	5															
7		Remove Protruding Taps	41 days	Tue 1/31/12	Tue 3/27/12	3															
8		Mobilize for Point Repairs	1 day	Mon 2/13/12	Mon 2/13/12	2															
9		Point Repair 1	3 days	Tue 2/14/12	Thu 2/16/12	8															
10		Point Repair 2	4 days	Fri 2/17/12	Wed 2/22/12	9															
11		Point Repair 3	5 days	Thu 2/23/12	Wed 2/29/12	10															
12		Point Repair 4	10 days	Thu 3/1/12	Wed 3/14/12	11															
13		Order Tube for CIPP	10 days	Mon 2/6/12	Fri 2/17/12																
14		Mobilize for CIPP	1 day	Mon 2/20/12	Mon 2/20/12	13															
15		8" Insituform® CIPP	17 days	Tue 2/21/12	Wed 3/14/12	14															
16		10" Insituform® CIPP	8 days	Thu 3/15/12	Mon 3/26/12	15															
17		12" Insituform® CIPP	10 days	Tue 3/27/12	Mon 4/9/12	16															
18		Reinstate Laterals	35 days	Tue 2/21/12	Mon 4/9/12	14															
19		Interior Drop Installation	10 days	Mon 3/26/12	Fri 4/6/12																
20		Chimney Frame and Seal	5 days	Mon 3/19/12	Fri 3/23/12																
21		Manhole Rehabilitation	55 days	Mon 4/9/12	Fri 6/22/12	19															
22		Surface Restoration-GC	17 days	Thu 3/15/12	Fri 4/6/12	12															
23		Replace Trees	5 days	Thu 3/15/12	Wed 3/21/12	12															
24		Walkthrough	5 days	Mon 6/25/12	Fri 6/29/12	21															
25		Substantial Completion	1 day	Wed 6/27/12	Wed 6/27/12																
26		Punch List/Asbuilts	22 days	Thu 6/28/12	Fri 7/27/12	25															
27		Final Completion	1 day	Fri 7/27/12	Fri 7/27/12																

Project: WCCD-Avon, Indiana
Date: 1/16/2012

Task



Milestone



External Tasks



Split



Summary



External Milestone



Progress



Project Summary



Deadline

