



**TRACK IX = LATERALS REHABILITATION  
WEDNESDAY, JAN. 29, 2020**



# The Underground Utilities Event

Underground Construction Technology | January 28-30, 2020 | Fort Worth, TX

## Agenda

**8:30-8:55 a.m. Technology Overview**

**9-9:55 a.m.** Update on Trenchless Methods in Plumbing Codes

**10-10:55 a.m.** Case Study on Effectiveness

**11-11:25 a.m.** Municipal Sewer Grouting

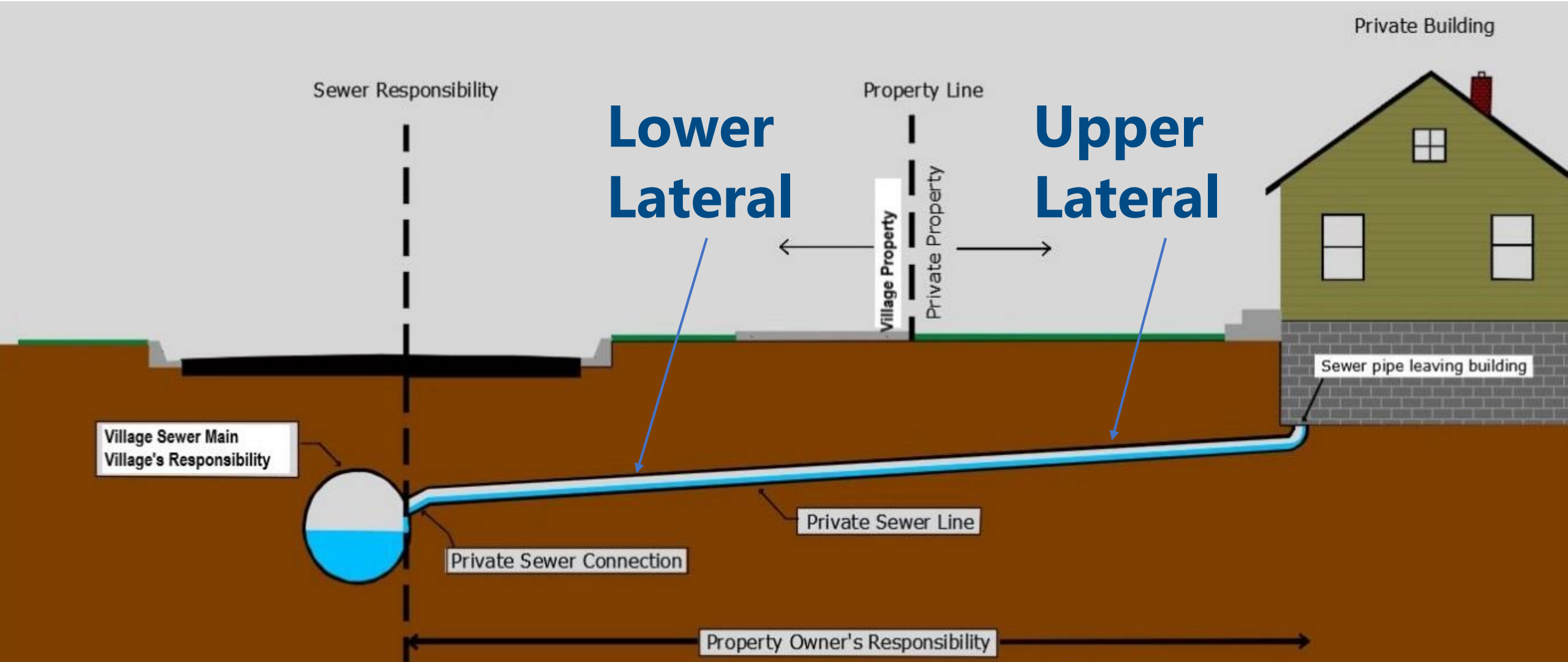
**11:30-11:55 a.m.** Q&A



**NASSCO**  
**NATIONAL ASSOCIATION OF  
SEWER SERVICE COMPANIES**

*Organization with mission to develop educational documents for the purpose of advancing lateral technologies by working with local and state health departments and plumbing boards, plumbing code development and enforcement entities, certification and quality control organizations in an effort to gain further acceptance of these technologies*

# Laterals! *An essential infrastructure component*





# Laterals



- **Over 76 million sewer laterals** in the U.S (3.8B LF) – 4" to 6" in diameter.
- **Laterals can be a major contributor to I&I** and a source of public health and safety concerns, including backups, exfiltration and cross-bore conflict.

# Laterals



- Over 76 million sewer laterals in the U.S (3.8B LF)  
– 4" to 6" in diameter.

**Numerous available methods for inspection, cleaning and rehabilitation using trenchless technologies to avoid costly open-cut excavation.**

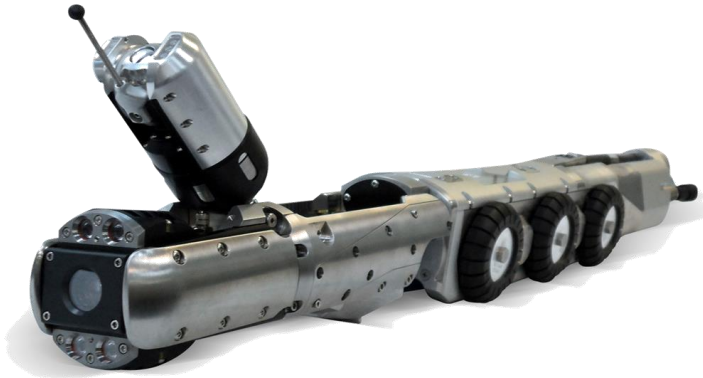
- Laterals can be a major contributor to foul and a source of public health and safety concerns, including backups, exfiltration and cross-bore conflict.



# Cleaning & Inspection



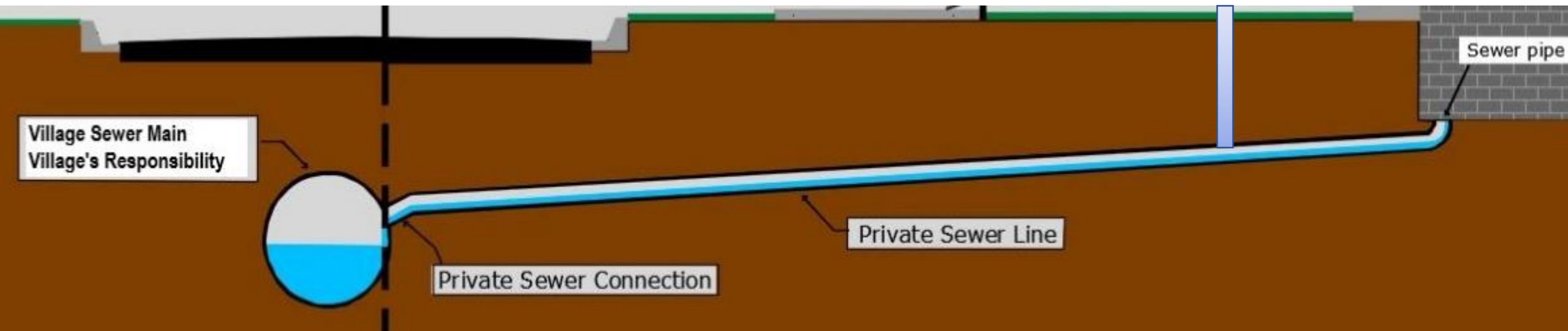
Lateral Launch



Jetting

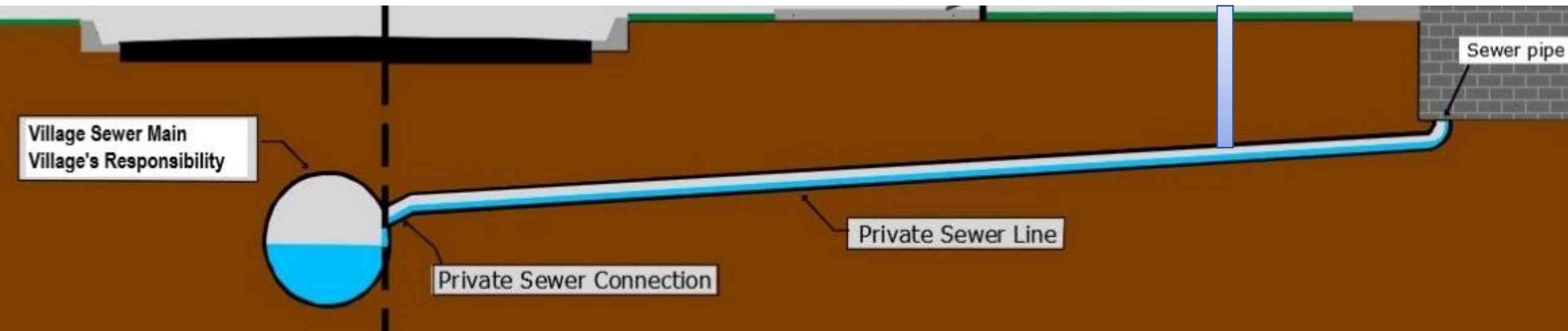


Push Camera



# Rehabilitation - *Trenchless Technology*

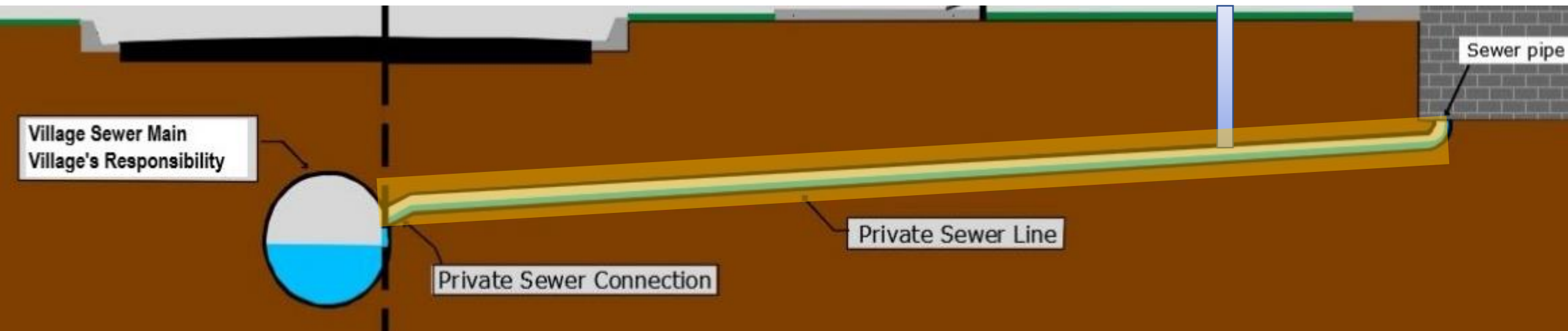
- Lateral - Cured In Place Pipe (CIPP)
- Lateral to Mainline Seal
- Spray-in Technology (epoxy)
- Pipe Bursting
- Grout Applications





# Rehabilitation - *Trenchless Technology*

- **Lateral - Cured In Place Pipe (CIPP)**
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# Rehabilitation - *Trenchless Technology*

- **Lateral - Cured In Place Pipe (CIPP) – *Inversion or Pull In***



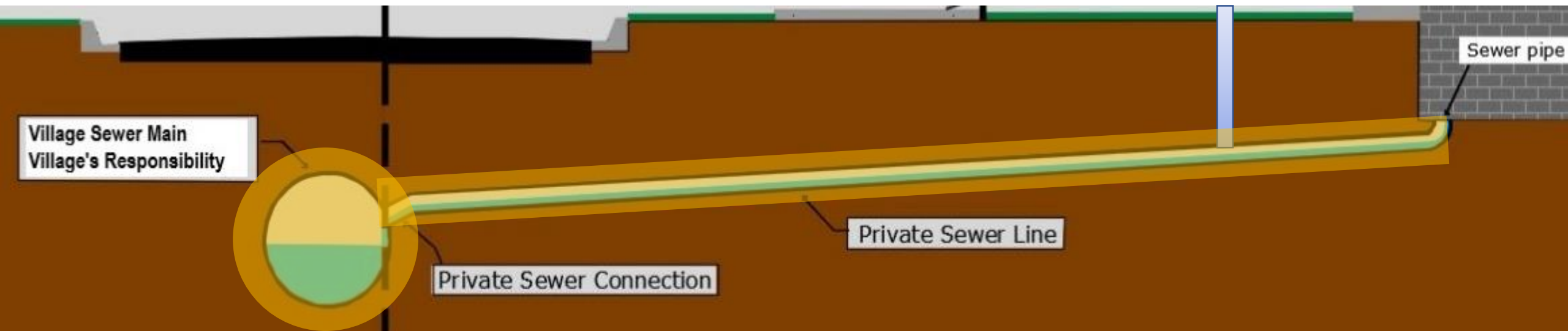
Addresses broken pipe, roots and corrosion.

Pro-active repair method (before collapse)



# Rehabilitation - *Trenchless Technology*

- Lateral - Cured In Place Pipe (CIPP)
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# Rehabilitation - *Trenchless Technology*

- **Lateral to Mainline Seal**



Can wrap the entire main, or apply a brim at the connection.

Length of lining can be long or short.

Typically inverted from mainline.

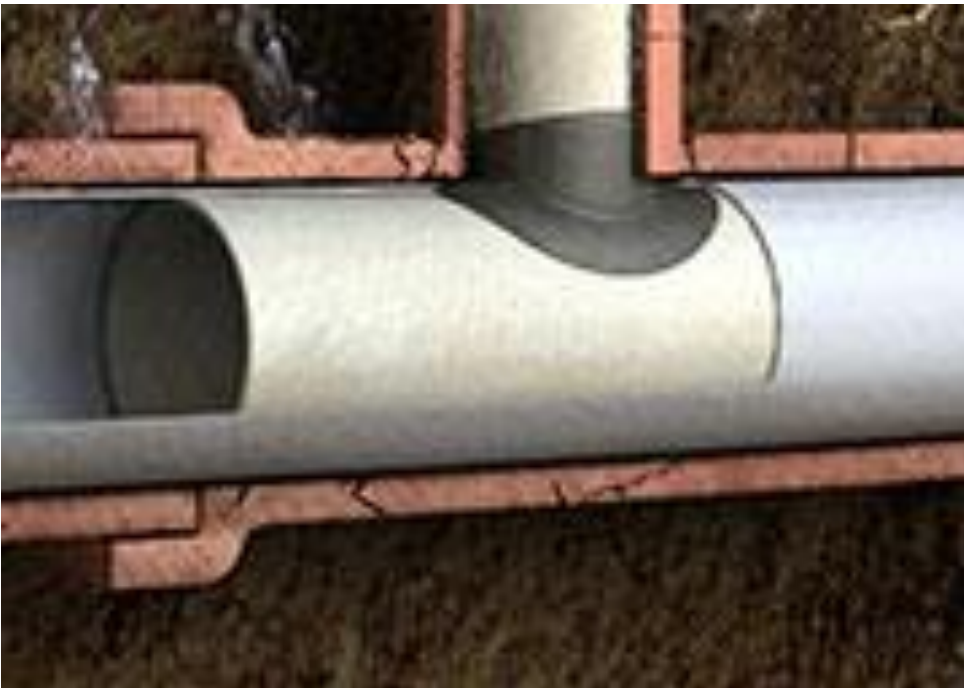
Must "seal" to the host pipe.



# Rehabilitation - *Trenchless Technology*

- **Lateral to Mainline Seal**

Full Wrap

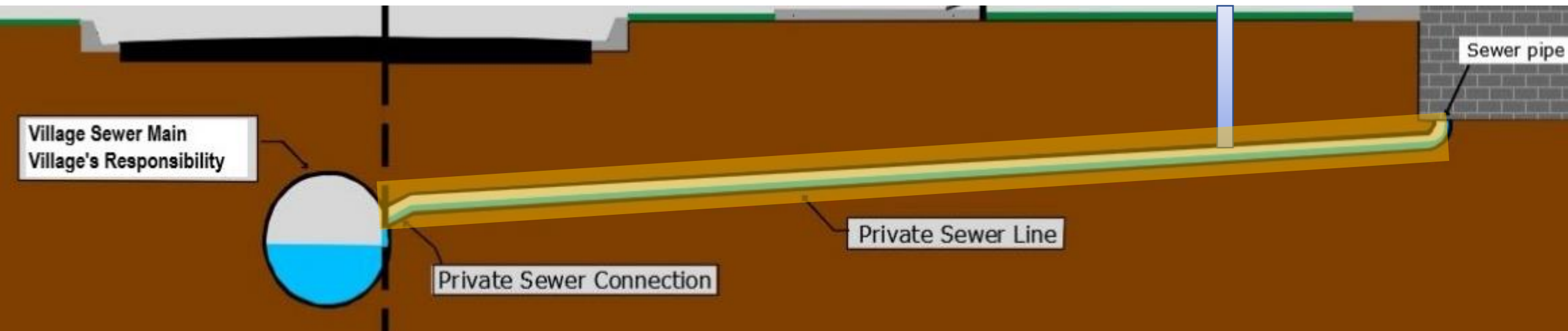
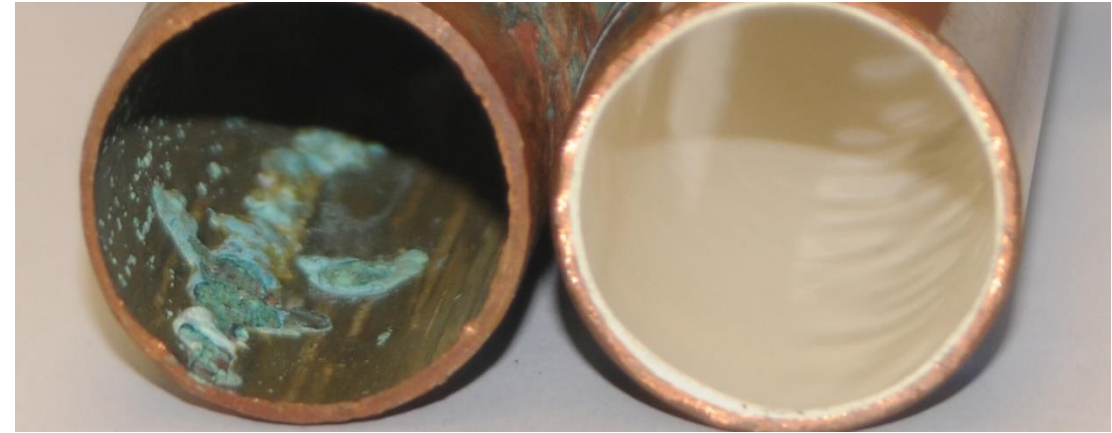


Brim Style



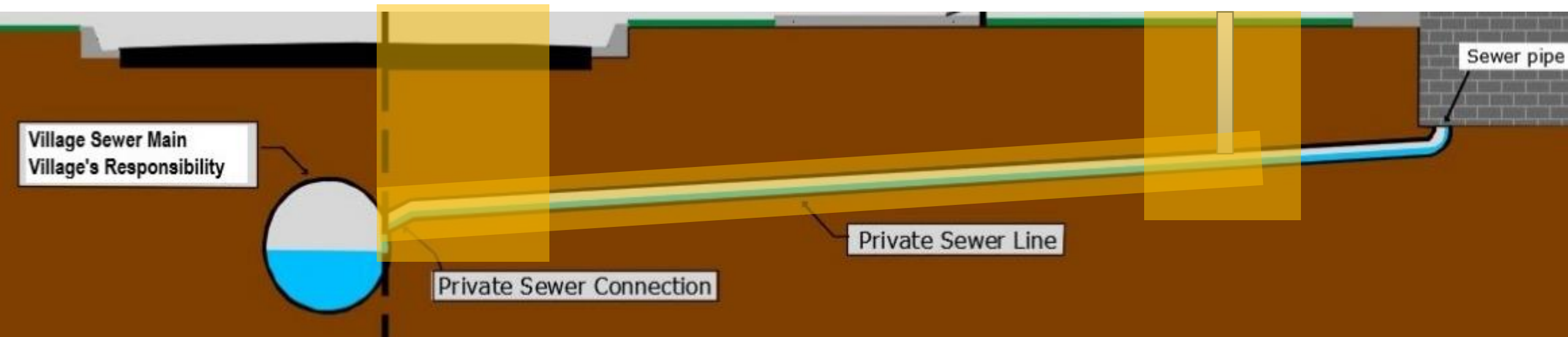
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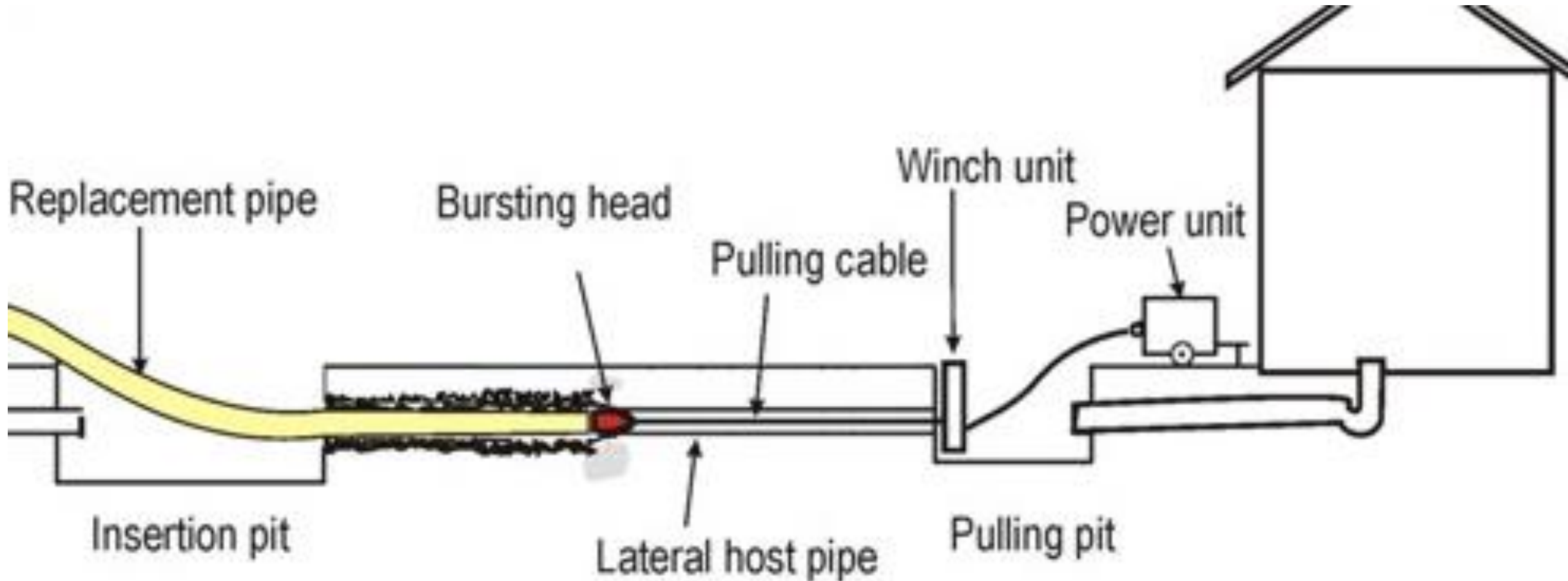
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# Rehabilitation - *Trenchless Technology*

- **Pipe Bursting**

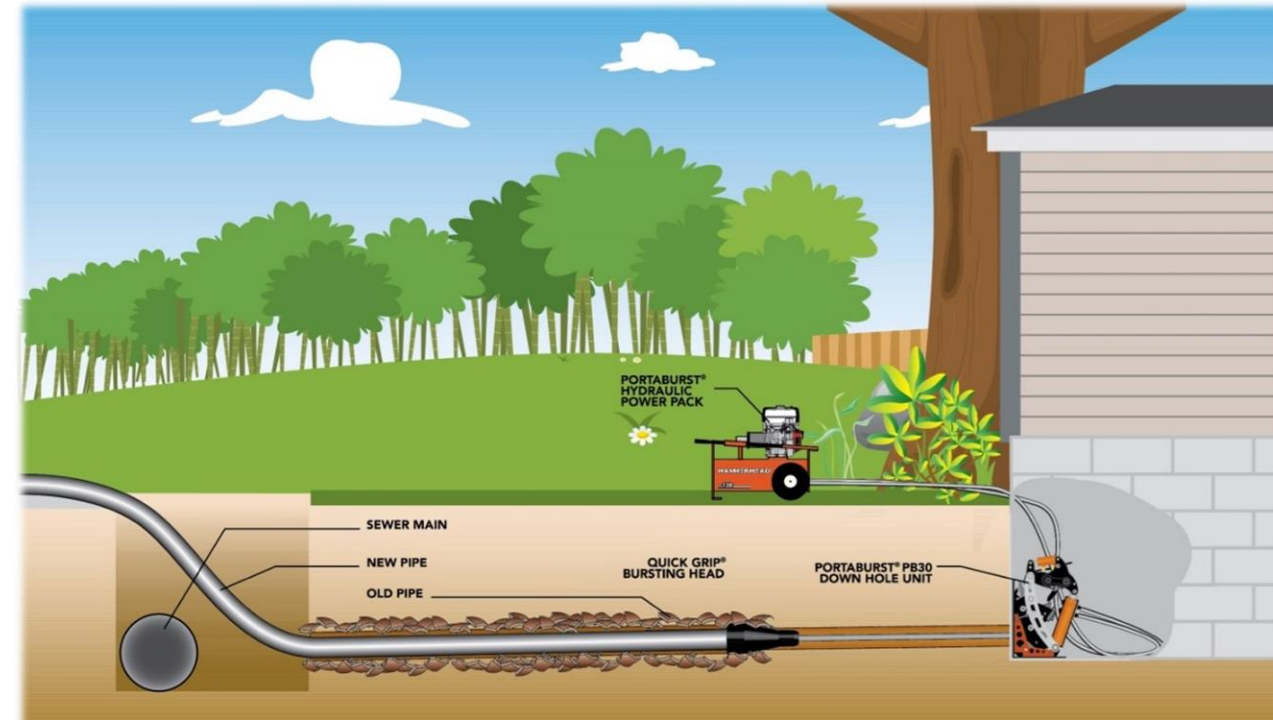
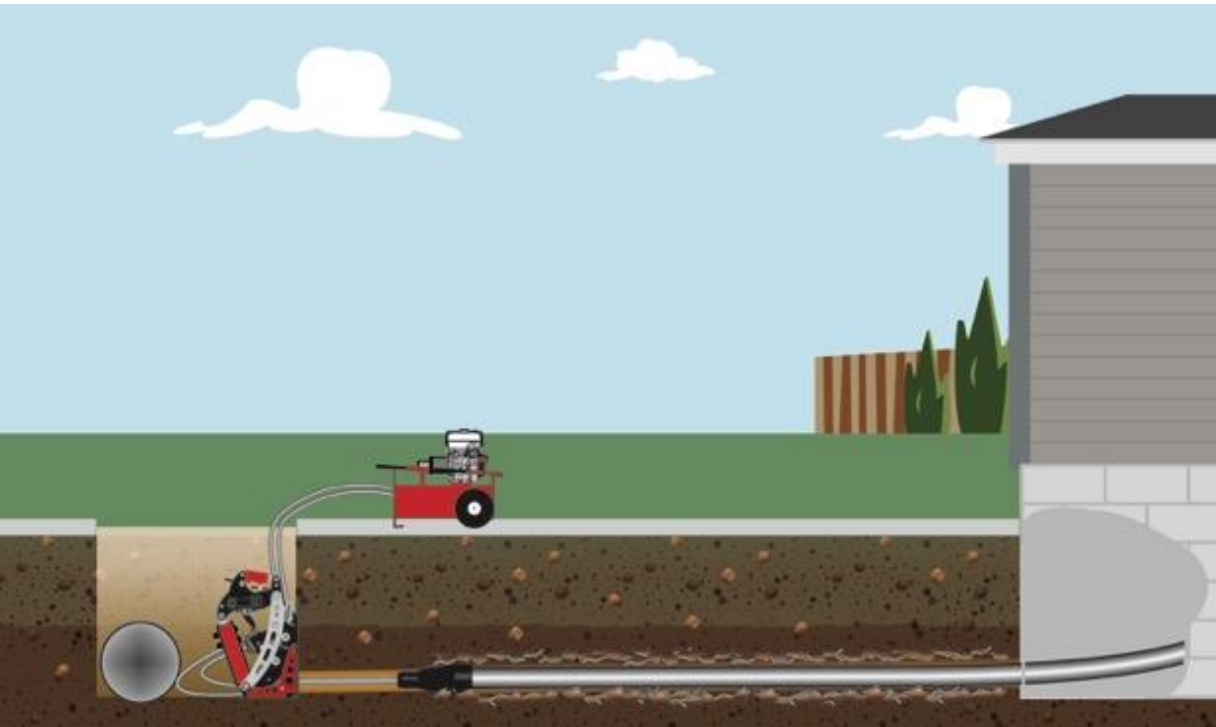




# Rehabilitation - *Trenchless Technology*

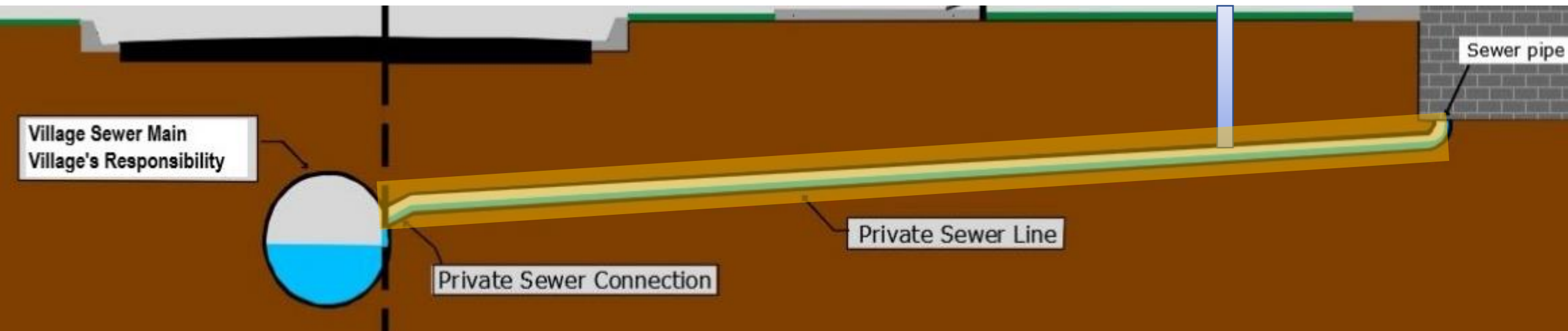


- **Pipe Bursting**



# Rehabilitation - *Trenchless Technology*

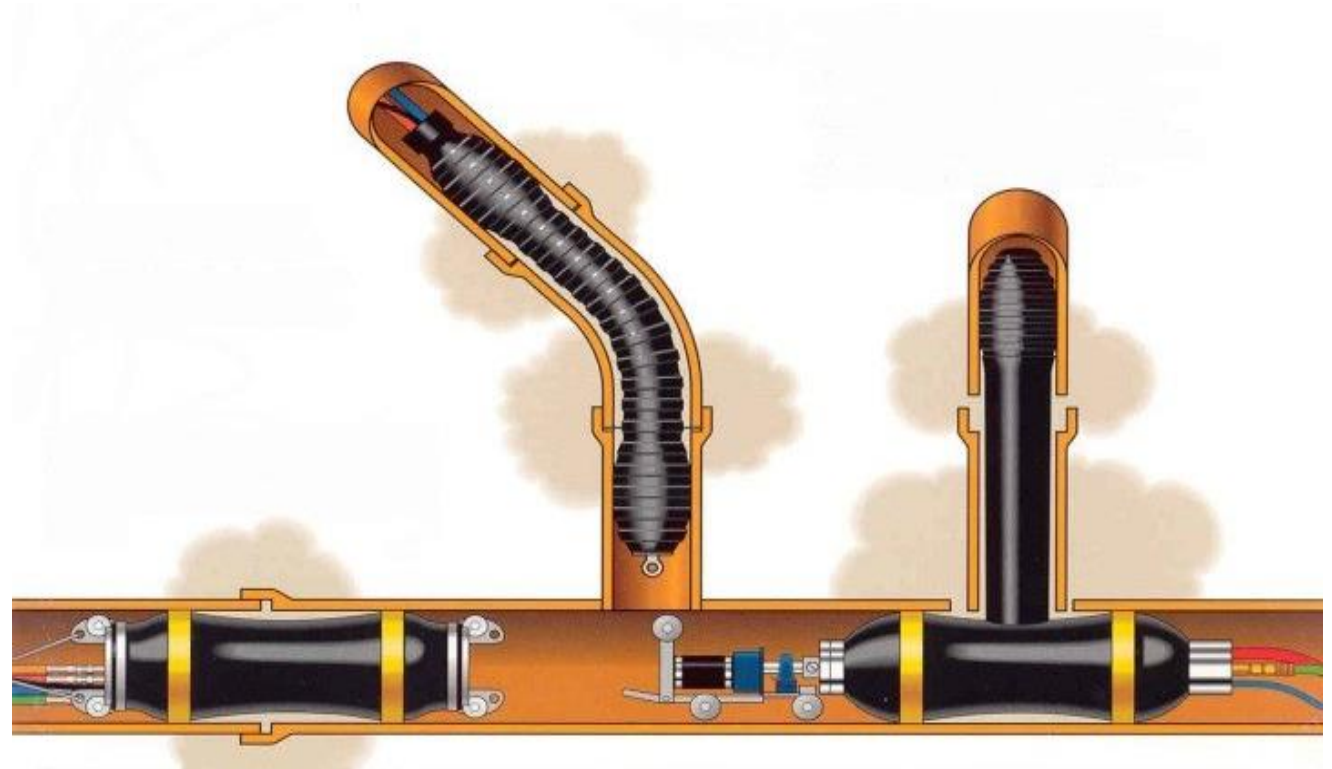
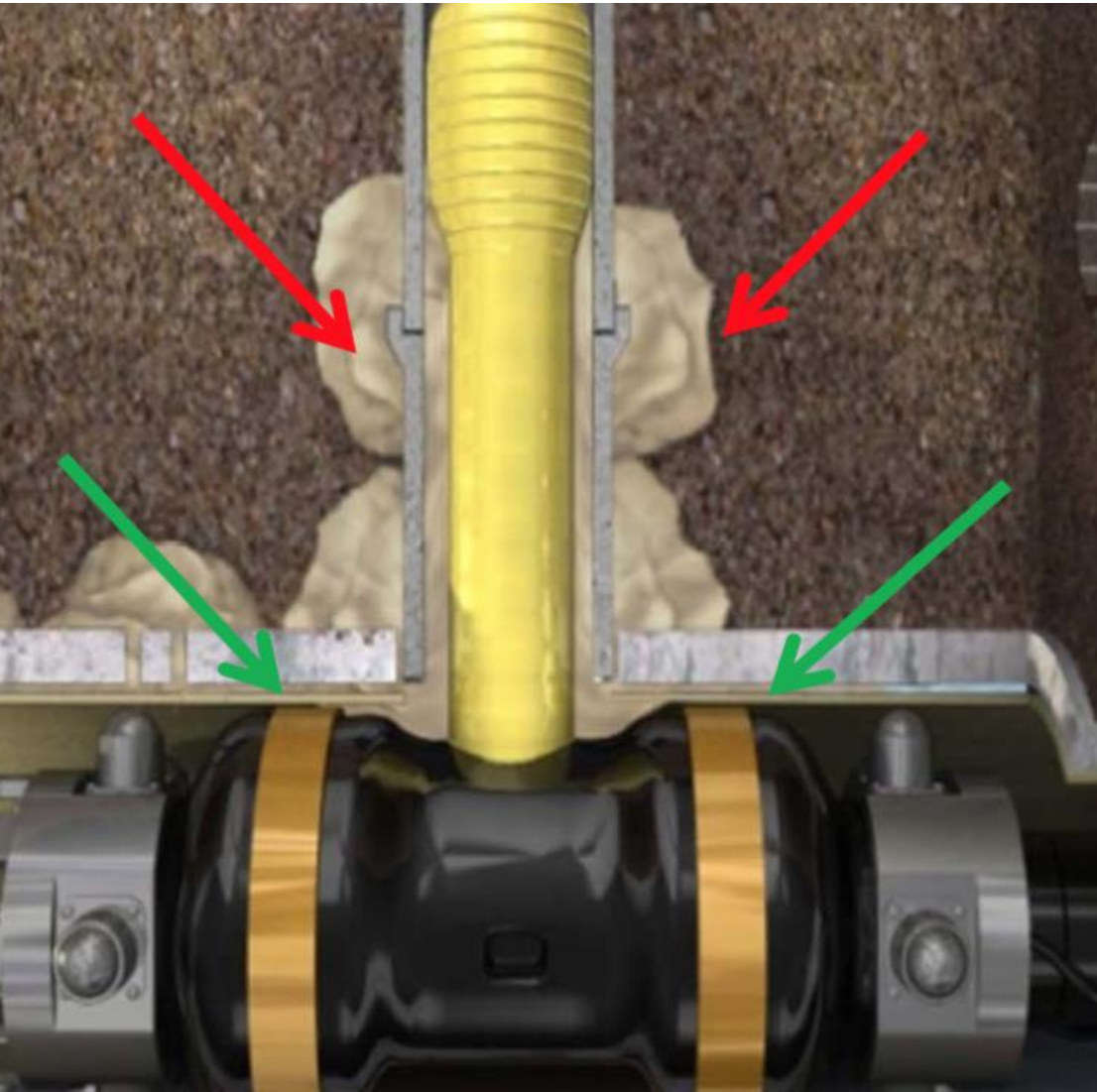
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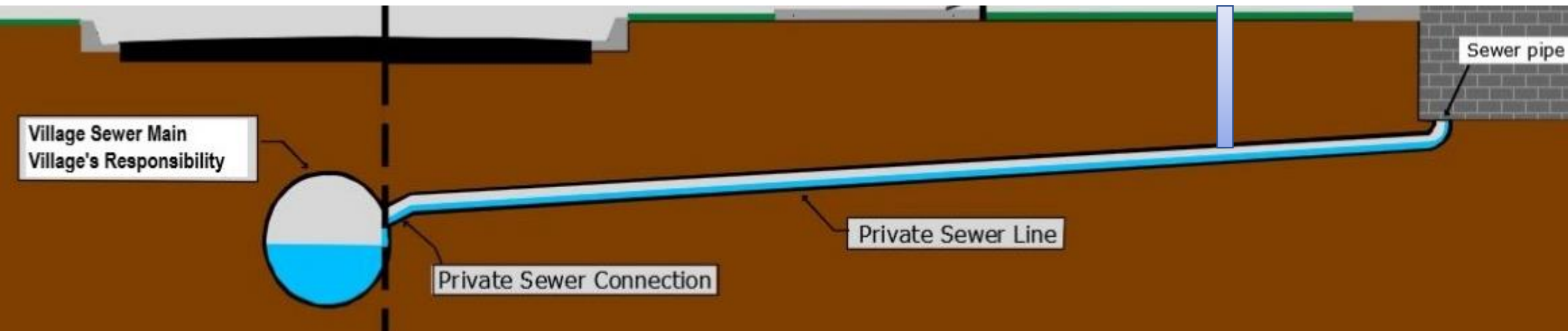
- **Grout Applications**



# Rehabilitation



**Note:** Cleaning for rehabilitation may involve additional tools/techniques







## Specifications Guidelines

NASSCO is pleased to offer the following Specification Guidelines as a service to our industry. These Guidelines have been prepared by NASSCO and have been peer reviewed by a committee consisting of suppliers, installers, engineers and system owners. It is our hope that you will use these guidelines as a reference point from which you will apply your own engineering judgments as project specific details are considered. It is out intent to add to, but not replace, the valuable input from professional engineers and experienced contractors while advancing the trenchless technology experience. In order to gain access to the Guidelines in word, you must login as a member.

### Specification Topics

- Any - ▼

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**THANK YOU**

*A Presentation by the NASSCO Lateral Committee*