

SANITARY SEWER CLEANING TECHNIQUES



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INFRASTRUCTURE DIVISION

Overview

Sewer Cleaning

- Pipe Materials
- Problem Types
- Cleaning Equipment
- Cleaning Techniques
- Summary



Sanitary Sewer Materials

Material	Pros	Cons	Defects
Clay	Smooth Walls	Short Sections, No Gaskets	Root Infiltration Structural Failure - Brittle
Concrete	Material Strength	Rough Walls	Root Infiltration Debris Buildup
No Corrode	Long Lengths	Material of Construction	Structural Failure
PVC	Long Lengths, Smooth Walls		Improper Installation

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Problem Types

Installation

- Sags
- Joints
- Bedding



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Problem Types

Installation

- Sags
- Joints
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Problem Types

Structural

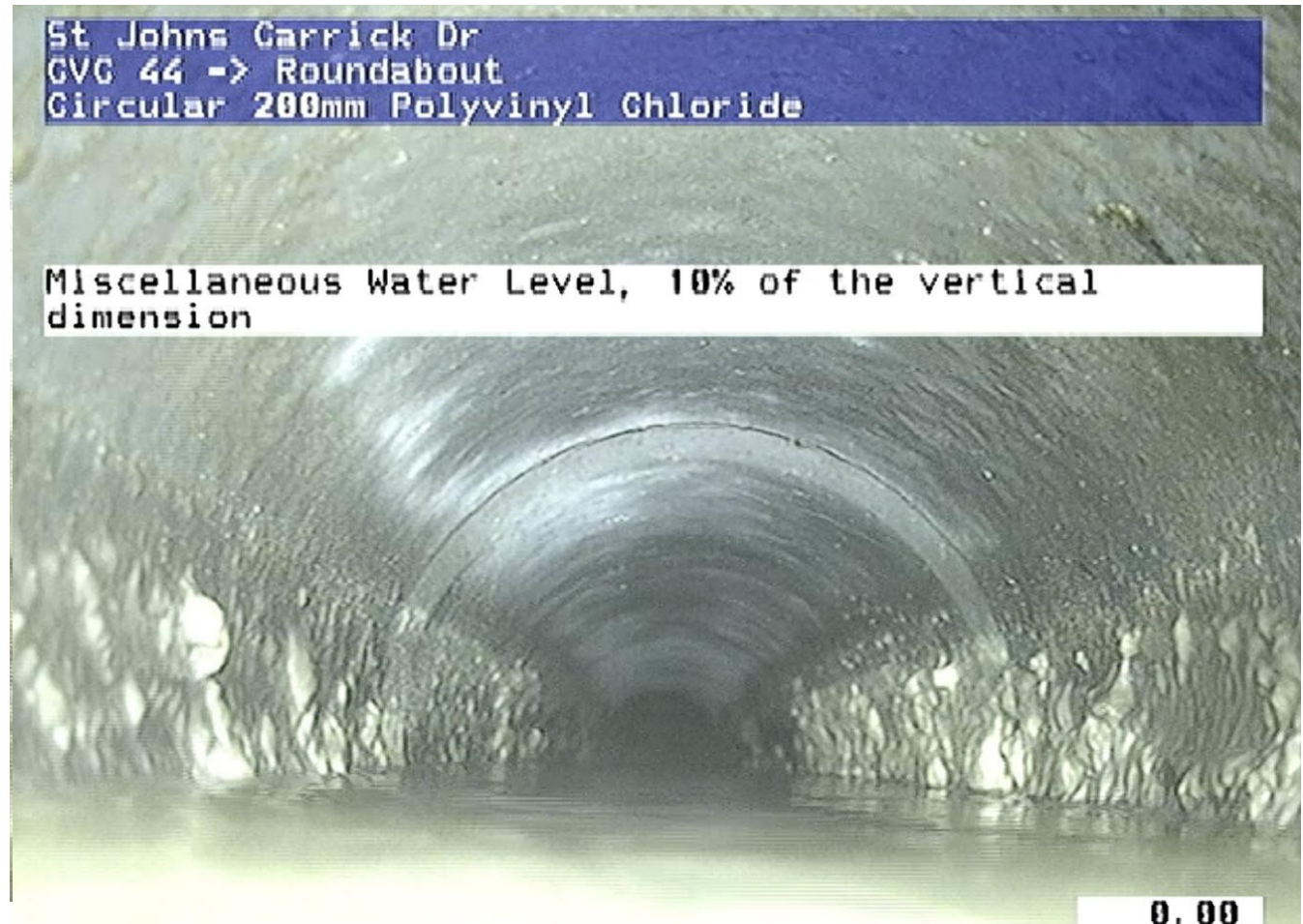
- Pipe Failures
- Pipe Damage
- Pipe Defects



Problem Types

Debris

- Wastewater Materials
- FOG
- Wipes



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Problem Types

Obstructions

- Roots
- Foreign Objects



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Sewer Cleaning Equipment

Rods





- 3 ft lengths
- Push to Main



Sewer Cleaning Equipment

Auger

- Wire Cables
- Various Attachments

KIT INCLUDES			
 PIN KEY	 STRAIGHT AUGER	 FUNNEL AUGER	 3" ROOT CUTTER
 4" ROOT CUTTER	 6" ROOT CUTTER	 SMALL OPENING TOOL	 MEDIUM OPENING TOOL
 3" GREASE CUTTER	 4" GREASE CUTTER	 CARRYING CASE	

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Sewer Cleaning Equipment

Sewer Jet

- High Pressure Water
- Various Nozzle Attachments
- 100-300 ft Hose Length



Sewer Cleaning Equipment

Sewer Jet

- Skid Mounted
- Truck Mounted
- Van - Various Configurations



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Sewer Cleaning Equipment

CSJ Sewer Jet Truck Configurations



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Sewer Cleaning Equipment

Sewer Nozzles

- Safety – High Pressure
- Know the Specs
 - Flow
 - Pressure
 - Line Size



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Sewer Cleaning Equipment

Nozzles Orifices

- Forward
- Backwards
- Angle
- Rotating
- Combination



Sewer Cleaning Equipment

Root Noozles

- Cutter Heads
- Chain Cutter
- Rotating Nozzle
- Oscillating Nozzle



Sewer Cleaning Techniques

Procedure

- Use appropriate PPE
- Locate access point for the sewer – manhole or cleanout
- Select appropriate sewer nozzle
- Position equipment as close to access point, if possible
- Insert sewer hose into pipe a minimum of 5 to 10 feet prior to starting flow of water.
- Turn on water flow, work hose back and forth to remove blockage, debris, obstructions.
- Rewind hose, turn off water once the nozzle reaches 5 to feet of access point.
- Clean tools and equipment.

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Sewer Cleaning Techniques

Video Links

- [Root Ranger Nozzle](#)
- [Reaper Nozzle](#)
- [Warthog Nozzle](#)



Sewer Cleaning Techniques

Sewer
Cleaning
Videos



Sewer Cleaning Techniques

Summary

- Know the pipe material
- Complete a video inspection if possible
- Select the correct tools or equipment



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A nighttime photograph of St. John's, Newfoundland, showing the city lights and harbor. The city is illuminated with warm yellow and orange lights, reflecting on the water. The harbor is filled with ships and boats, and the city extends up a hillside in the background. The sky is a deep blue, and the overall scene is a vibrant display of urban lights at night.

Thank You

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