



CITY OF MORRO BAY
PUBLIC WORKS DEPARTMENT
955 Shasta Ave.
Morro Bay, CA 93442

Requirements for Video Inspection of Private Sewer Lines (PSL)

PURPOSE AND NATURE OF WORK

To repair defects in the sanitary sewer system and reduce the inflow and infiltration of groundwater into the public sewer system. A PSL video inspection is required for a building permit approval and is triggered by development that results in an increase in flow or fixture units. All required repairs shall be include on the approved set of plans.

This document provides information and sets forth standards for private sewer lateral (PSL) video inspections which shall be submitted as part of the City of Morro Bay's Project Requirements.

City of Morro Bay Municipal Code (MBMC) references:

MBMC 14.07.030.c - All house connection sewers, industrial sewers, private sewage disposal systems and appurtenances thereto, now existing, or hereafter constructed, shall be maintained by the owner of the property in a safe and sanitary condition and all devices or safeguards which are required by this section for the operation thereof shall also be maintained in a good working order by the owner. It shall be the property owner's responsibility to maintain that portion of the sewer to the public main, including the connection to the public main.

KEY DEFECT TYPES AND REPAIR REQUIREMENTS

1. "Break-in" type main connection – Replace with a new "Factory" wye connection
2. "Orangeburg" type pipe material – Replace with a new plastic pipe (PVC)
3. Offset joints and bad gaskets – Replace bad joints with new plastic pipe.
4. Cracked and broken pipe – Replace with new plastic pipe.

KEY REQUIREMENTS AND CITY SUBMITTALS

1. CCTV inspection recordings shall be delivered to the City in DVD, memory stick, or other approved fashion that will provide a electronic copy to be remotely stored. The video shall be in color. Acceptable file formats are as follows in this order of preference: MP4, AVI, WMV & FLV.
2. Written assessment by company performing inspection: The company performing the video inspection shall provide to the City a written assessment of the inspection performed which identifies defects, changes in pipe materials, pipe alignment (bends), and general observations as to the existing pipe condition. The assessment shall be accompanied by an exhibit showing the location of the existing PSL on the project site plan and the relative locations or stations of the items discussed in the assessment. The operator shall clearly identify the surface location of the following: all wye-tee junctions, taps, breaks, roots, or other defects. The City shall review the assessment and verify any required repairs.



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FIELD DATA COLLECTING PRACTICES

1. Camera, power source, lights, and other components for the video inspection shall be equipment that was designed and manufactured for the inspection of laterals and piping.
2. Lighting and camera quality shall be suitable to provide a clear, in-focus picture of the entire inside periphery of the sewer pipe for all conditions encountered during the work. Focal distance shall be adjustable from a range of 6 inches to infinity.
3. Lighting shall be suitable to allow a clear picture of the entire inner pipe wall extending at least 3 feet but no more than 10 feet in front, including black High Density Polyethylene (HDPE) pipe. Lighting for the camera shall minimize reflective glare.
4. All pictures (recordings) shall be properly focused and illuminated with good contrast, adequate color and tint, without distortion, or outside interference. The picture, while moving forward or on the reverse run, should have adequate light to clearly ascertain, with certainty, cracks or fractures and their severity, in addition to the obvious features (i.e., roots and joints).
5. The camera lens must be kept clean and clear; any fogging due to oil, grease, or other water content or debris that obscures the lens shall be cleaned off before proceeding with the recording operation. The camera is to be operative in 100% humidity conditions.
6. The camera shall be moved through the line at a uniform rate but in no case at a speed greater than 30 feet per minute. The camera shall be stopped for a minimum of 5 seconds at broken sections, root intrusion, miss-aligned joints or other defects. The camera shall be stopped for a full minute at flowing, undocumented connections, and if needed, pulled back and re-televised to ensure a clear recording of the connection. If needed, the lens and lighting shall be readjusted to ensure a clear, distinct, and properly lighted feature. Camera units shall have adjustable supports and shall be set so the camera axis is generally at the centerline of the pipe.
7. The contractor and owner should coordinate to minimize or temporarily stop sewer discharge into the lateral while recording.
8. The inspection shall begin with the camera outside of the lateral, showing the property being inspected, with the camera operator clearly stating the following:
 - a. Date
 - b. Time
 - c. Location (address)
 - d. Lateral being inspected, if more than one lateral on the property
 - e. Contractor's Name
 - f. Pipe size
 - g. Material



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9. Include data view display feature capable of showing on recording the following information:
 - a. Lateral address
 - b. Date and time of inspection
 - c. Contractor name
 - d. Inside pipe diameter and material
 - e. On-going footage counter (accurate within 3 percent)
 - f. Identify access and starting point for video inspection, e.g., upstream cleanout and location of cleanout
10. The preferred direction is forward from upstream to downstream. The camera operation may be cable-pulled or self-propelling, and may record PSL defects/details moving forward or on a reverse pull depending on the pipeline conditions.
11. Video televising of the entire length of the private lateral is required including the junction with the sewer main, unless there is an inability to complete the inspection due to the condition of the lateral, such as broken pipe segments preventing the continuation of the inspection yet demonstrating that the lateral is not free of leaks. If there are no access points, an installation of a new cleanout may be required at the building and other locations according to the UPC in order to perform a video inspection of the private sewer lateral.
12. The pipe diameter shall be obtained by physical measurement in the upstream (or downstream) Cleanout.
13. CCTV submissions shall be labeled. Labels shall be typewritten or legibly hand printed and include:
 - a. Title: PSL CCTV Inspection
 - b. Street address
 - c. Date of inspection:
 - d. Tape provided by "Contractor Name"
 - e. Contractor/Plumber License No
14. Contractor Identification: The following information shall be provided:
 - a. Name of the firm
 - b. Firm's principal place of business
 - c. Contact's name and telephone number
15. Operator shall identify on tape all potentially illicit connections draining into the sanitary sewer system.
16. In the event that a PSL has been determined by the contractor to fail the CCTV inspection a hardcopy image of at least one of the identified PSL defects shall be provided in addition to the DVD. The provided image shall include the information from Item 9.