



Address: 447 E Hullett St, Long Beach

Date of Inspection: 3-22-24

Cost of Inspection: \$350

Name of Inspector: Nemesio "Nemo" Padilla

West Coast Sewer Inspection: (310) 876-4653

Main Sewer Line Inspection Report

Objective: The objective is to view the main sewer line for the property. The main sewer line is the waste pipe on the outside of the building. The beginning of the main sewer line is where the pipe exits the house and the end of the main sewer line is where the pipe connects to the city sewer.

Main Sewer Line Access Points: In order to view the main sewer line for this property we used a 4" cleanout for front house and a 3" cleanout for the ADU. These cleanouts can be used for routine maintenance and inspections on the main sewer line.

Path of Main Sewer Line on Property: The main sewer line is made of a plastic material pipe from the cleanout and then transitions into a clay material pipe. The clay pipe then travels underneath the rear patio area towards the backyard. The pipe then transitions into a short section of plastic pipe for the ADU tie in. The pipe then transitions back into a clay material pipe as it travels underneath the remainder of the backyard towards the alley. The connection to the city sewer is taking place underneath the alley behind the house.

(ADU) The main sewer line is made of a plastic material pipe from the cleanout as it travels underneath the backyard. The pipe then transitions into a clay material pipe as it travels underneath the remainder of the backyard towards the alley. The connection to the city sewer is taking place underneath the alley behind the house.

Types of Materials used in sewer line: Clay is a good material for sewer lines as it does not rust or corrode over time. There is no limit to how long clay can potentially last but can be damaged by

earthquakes or roots or even bad installation. The clay portion of this sewer line is functioning but has some defects in the condition of the pipe typical to clay sewer lines.

The plastic portion of the system is in good condition. Plastic is an excellent material for sewer line applications. It does not rust or corrode under chemicals commonly found in sewage. Therefore, it has an extended life potential. Also, it is flexible, and its joints do not allow for root intrusion when it is properly installed. This provides a trouble-free use from plastic for a very long service time. Some of this plastic system has low spots that are causing some sewer water to pool in the pipe. This is not how the pipe is intended to be installed. A gravity drain system is designed to slope downward throughout its length. There is no indication that this is causing a problem for the pipe or the function of the system at this time.

Areas Needing Attention: A portion of the clay pipe sewer line underneath the rear patio area has a very large offset/shift. The shifting of the pipe is more extensive than could be considered acceptable and it is failed to the degree that some sewer will likely be able to escape the system into the surrounding soil. The most effective and cost-efficient method of repairing the line can best be determined with the assistance of your sewer contractor of choice who will be performing the work.

There is a moderate crack in the pipe located at the connection to the city sewer. When this represents a breach of the system there are certain definite indicators which are not being demonstrated here. While this portion of the line is not perfect it does appear to be functional at this time. In a few years a second inspection can determine if the pipe is in motion at all or if it has settled in place. If it is desired to proactively repair this defect in the line, it may be possible to have a specifically designed robotic repair done on the line known as a "top hat" liner. This is a method of repairing a connection to the city sewer without the need to dig. Not all sewer systems qualify for this repair and if it is desired then a contractor which specializes in robotic sewer repair should be contacted to ensure the pipe can be helped with that method of repair.

Estimated Costs for Repairs: To repair the offset/shifted clay pipe it might cost \$3,200 - \$3,500.

To install a top hat liner, it might cost \$3,800 - \$4,000.

These are estimated costs based on work seen by plumbers and sewer contractors. Prices can vary depending on contractors and for definite estimates a plumber or sewer contractor will need to be contacted.

Main Sewer Line Video Links:

4" cleanout: https://www.youtube.com/watch?v=xRSRtffVp_E

3" cleanout for ADU: <https://www.youtube.com/watch?v=Wo-1dhPGQBs>

Photos of Main Sewer Line:



Location of offset/shifted clay pipe 3.2' deep.



Location where front house and ADU sewer lines tie in together.



Connection to city sewer under tool.