



Address: 1931 Ruhland Ave, Redondo Beach

Date of Inspection: 2-15-23

Cost of Inspection: \$275

Name of Inspector: Nemecio "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 located alongside 1931 ½ and a 4" cleanout located in front of 1931. 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 cast iron material pipe from the cleanout alongside 1931 ½. The cast iron material pipe then travels alongside 1931 ½ towards alongside 1931. The pipe then transitions into a fiberglass liner as it travels alongside 1931 towards the driveway/sidewalk area. The fiberglass liner then travels underneath the city sidewalk and out towards the center of the street. The connection to the city sewer is taking place underneath the street in front of the property.

(4" cleanout in front of 1931) The main sewer line is made of a plastic material pipe from the cleanout and then immediately transitions into a fiberglass liner. The fiberglass liner then travels underneath the front porch area towards the driveway/sidewalk area. The fiberglass liner then travels underneath the city sidewalk and out towards the center of the street. The connection to the city sewer is taking place underneath the street in front of the property.

Types of Materials used in sewer line: Cast iron is the strongest of the pipe materials available for sewer. It is susceptible however to oxidation. The thick iron walls of the pipe typically wear away through gradual rusting over the course of 60-80 years. For this reason, cast iron has a finite life potential and will need replacement eventually. Due to the nature of the material, it can be difficult to determine if the pipe is able to leak from only an interior view.

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.

Portions of this main sewer line have been upgraded with a lining system in the past. Lining systems vary somewhat in quality of material and installation quality. Many lining systems are protected by warranty by the installing contractor as well as the manufacturer. It is advised to obtain any paperwork available from whomever had this work done. This pipe can fold in on itself over time and should be re-inspected every couple of years to determine if any change has occurred.

Areas Needing Attention: The transition from plastic to fiberglass lined pipe has roots intruding in through the connection between these two pipe materials. This is a section of pipe which when properly installed will not allow root intrusion. There is also a section within the fiberglass liner that roots are penetrating the fiberglass liner near steps leading the front garage (see pictures for location). This fault in the installation of this pipe might be covered under the warranty for the installation. If so the cost of bringing this up to standard might be covered by the warranty. Otherwise, a contractor should be hired to repair the root intrusion in the fiberglass liner.

The rust in the cast iron pipe should be removed at this time, by a specialized machine with a high-speed rotating cable and attachments are able to scrape away build up in cast iron pipe inner walls. Descaling the cast iron pipe may extend the life of the pipe as it will remove some of the rust build up.

Estimated Costs for Repairs: To repair the roots coming through the fiberglass liner to plastic cleanout it might cost \$1,600 - \$1,800.

To repair/replace the fiberglass liner with root intrusion as it exits the front house it might cost between \$10,000 to \$12,000.

We can descale the cast iron pipe for \$200.

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 alongside 1931 ½: <https://www.youtube.com/watch?v=LSA0GyCIKhc>

4" cleanout in front of 1931: <https://www.youtube.com/watch?v=AvIhzAU8P-s>

Photos of Main Sewer Line:



Location of 4" cleanout alongside 1931 ½ used for inspection.



Transition from a cast iron pipe to fiberglass liner.



Location of root intrusion from fiberglass liner to plastic cleanout. 3' deep.



Location where the 1931 and 1931 ½ sewer line tie in together.



Location of 4" cleanout in front of 1931.



Location of heavy root intrusion in fiberglass liner. 3.5' deep under tool.



Connection to city sewer under tool.