

# McMinnville Oregon Chooses Infrastructure Repair Systems for Lateral and Mainline Point Repairs

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If you've ever had the opportunity to fly into Portland, Oregon on a sunny day you inevitably hear the passengers on the plane say: "Look how beautiful and green the landscape is!"

Well there is a reason for that – It's the rain.

Located 35 miles southwest of Portland, in Yamhill County and in the heart of Oregon's wine country lays the picturesque city of McMinnville Oregon, population 32,000. It's the rain and Oregon's climate that has provided the rich fertile ground suitable for McMinnville's growing vineyard and tourism success. This notable community is also home to Linfield College, Evergreen Aviation and the infamous "Spruce Goose." As you can imagine, McMinnville is a popular tourist destination. Therefore, along with the residents, the City of McMinnville is very concerned with its image, both above and below ground.

Below ground includes *wastewater* and *storm* pipe and it is the responsibility of the "**Conveyance System Maintenance Crew**", headed by Harold Jones, Collections System Maintenance Supervisor. This crew is responsible for maintaining the wastewater (sewer) and storm (rain runoff) lines located throughout the City. Jones' crews clean and inspect all of the City's wastewater and storm lines, as well as make repairs.

Maintenance and repair of the sewer lines is critical to limit the excess rainwater and ground water that can



McMinnville Conveyance System Maintenance Crew doing maintenance inspections of the City's sewer lines.

infiltrate the lines through cracks and breaks, as well as prevent blockages and sewer back-ups. To accomplish these types of repairs the City of McMinnville – after careful testing and review – decided that **Infrastructure Repair Systems Inc. (IRSI)**, based in St Petersburg Florida, proved to be the best tool to have for their Lateral and Mainline Trenchless Point Repairs.

In August of 2011, **Infrastructure Repair Systems Inc.** traveled to McMinnville to train and certify Jones' crew consisting of Robert Paola, Jose Hernandez, Randy Clow, Joe Rinkles and Matt Bernards. Also attending was IRSI's experienced representative and distributor, General Equipment Company's Pat Kuhnau and Rick Stroud. IRSI's comprehensive onsite training provided the city crew with "hands on installation training" consisting of two practice above ground repairs and three actual in-ground

repairs fixing various leaks and breaks located in the city's sewer system.

The IRSI-patented Lateral and Mainline Trenchless Point Repair System provides the city with a valuable tool in repairing damaged pipe. This damage can consist of leaks, breaks and even missing pieces of pipe. The end result is a permanent repair that can be applied in most any type of pipe, i.e. PVC, clay and concrete. The result is a repair that is stronger than the host pipe and has been tested and certified to last 100 years! This is accomplished by having the crew locate the area in need of repair by using their mainline video camera. In lateral pipes, a push camera works best. The crew will then wrap a carrier with the epoxy impregnated repair mat, insert it into the damaged pipe and either pushes or pulls the carrier with the repair liner into the pipe and centers it over the damaged area. The carrier is then inflated and the excess epoxy is pushed into the cracks, crevices or holes and defects of the damaged pipe creating a mechanical bond as the curing takes place.

During the training and certification of the McMinnville crew, Harold Jones explained that the City is responsible for the sewer lines in the easement area where the mainline connects to the homeowner's or business lateral service. This area can encompass the sidewalk or even a driveway making digging a costly and invasive method of repair. It was determined that the IRSI trenchless lateral point repair was the perfect solution for just this type of repair.

At the clean-out just outside the home on Oregon Street, the crew inserted a push camera down the 4-inch lateral pipe locating the damaged area just a few feet from the main. The damage was accessed and the liner length is selected. It should cover the damage and 1 foot on each side.

The Infrastructure Repair System liners come in any needed length and there are four

liner weights or thickness from which to choose. To accomplish

this lateral repair, the crew will use a specially designed carrier that allows the IRSI Point Repair the ability to negotiate the 90-degree bend found in most lateral services.

Once the distance to the damaged area was determined and the line cleaned, the crew began the simple process of wet out, wrapping the carrier and insertion. The cure-out phase of the



IRSI Lateral Point Repair System using a specially designed carrier that allows it to navigate the 90-degree bend found in most lateral services.



McMinnville crew preparing the carrier and liner for insertion into line.

IRSI trenchless point repair takes approximately two and a half hours. (This can vary due to air and sewer

temperatures.) After the Oregon Street lateral repair was cured, the carrier was deflated and removed from the line.

It is at this time the push camera was re-inserted into the line and an after shot was taken. This was confirmation that the repair was correctly installed, the break and leak permanently repaired. When asked, Jones explained that by using the IRSI trenchless mainline and lateral repair system “the city saves a significant amount of money with little or no disruption of service.”



Camera shot of repaired line.

Maintenance and repair of the sewer lines is critical to manage the excess rainwater and ground water that can infiltrate the lines through cracks and breaks, overloading the conveyance system, as well as preventing blockages and sewer back-ups into homes or businesses. So repairing these problems is critical to any municipality.

The ability to repair these problems without digging up the line, causing a disruption of service and the expense of restoring the environment, is a tremendous tool, saving “significant” money and resources. The City of McMinnville should be congratulated for thinking “green” using an innovative, progressive, money saving solution to quickly and easily stop leaks

and root intrusion in an aging infrastructure. With the Infrastructure Point Repair System in as little time as 2 1/2 hours a cracked or missing piece of pipe can be repaired. There is no need to dig up and replace or relin the whole pipe at a much greater expense.