WHAT LIES BENEATH THE HILL

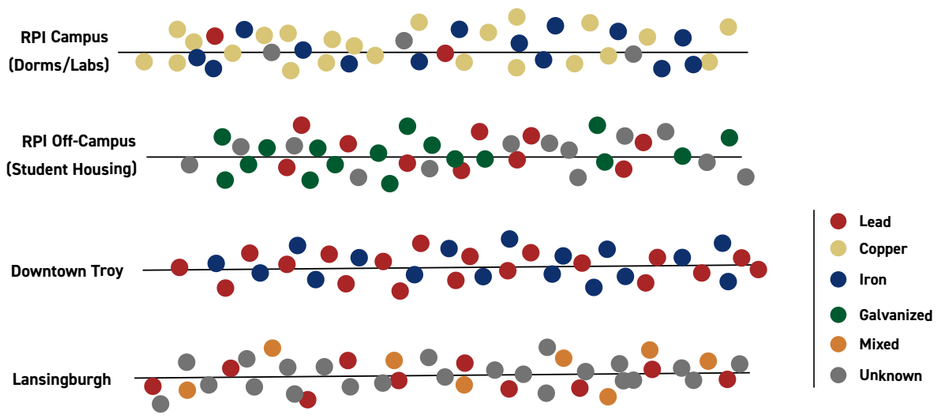
Alumni remember the charm of the Victorian architecture surrounding campus. But new data reveals a hidden danger in the "Last 50 Feet."

For decades, RPI students have followed a familiar migration pattern: moving from the safe, modern infrastructure of the Frenshman Dorms to the historic off-campus apartments of Beman Park and Downtown Troy. These neighborhoods, filled with pre-1940 Victorian homes, offer architectural beatuy and a sense of independence.

"The water is safe. The pipes are not."

However, recent investigations reveal that while the water leaving Troy's treatment plant is pristine, and the massive mains under the streets are safe, danger lurks in the service line, the pipe running from the curb to the basemsent.

The Infrastructure Map



The Danger to Students

While the massive mains under the street are safe, the danger lies in the "Last 50 Feet" connecting to homes. As shown here, RPI's campus infrastructure relies on safe iron and copper. However, just blocks away in student housing neighborhoods and Downtown Troy, Victorian-era homes remain "hot zones" for lead and galvanized pipes.

The Data Gap

If a house was built before 1940, there is a high probability this pipe is made of lead. Troy is currently fighting a two-front war against this aging infrastructure, and RPI students are on the front lines.

As of March 2025, the city has mapped only 57.3% of its service lines. This means nearly half the city is still gray (marked as unknown) on the map. The city knows where the pipes are downtown, but the rental neighborhoods where students live have high rates of unknown data because landlords are slower to report.

The Student Army

To solve this, the city is relying on residents to become "citizen scientists." RPI students have partnered with City Hall to go door-to-door, using magnets and scratch tests to identify pipes in the unknown zones.

This student army is critical to the city's plan. By identifying these lines, they are not only protecting their own health but clearing the way for federal funding.

Citizen Science

Closing the Data Gap

43%

of previously "Unknown" lines identified by RPI students.

The Pace of Repair

With $12.8 million in funding secured, the bottleneck has shifted from budget to manpower. In 2024 the city replaced 255 lines, falling behind schedule. To stay on track for the 2028 deadline, crews must ramp up to replace 1,000 pipes this year alone.

The Dig

Annual Service Line Replacement Velocity

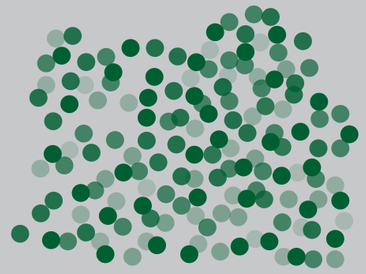
2024 Actual

255

Paced limited by lack of funding and labor shortages.

2025 Target

1,000



Required pace to meet 2028 lead free deadline.