

**CASE
STUDY**



**PROJECT
SNAPSHOT**

PROJECT OWNER
City of Lewiston

CONTRACTOR
Vortex Services - Northeast Division

PROBLEM
The city's sewer lines and a number of manholes needed condition assessments on a time crunch.

SOLUTION
Used CCTV cameras and MSI equipment to carefully assess Lewiston's sewers and several manholes, providing the city with information on where to focus its future rehabilitation efforts.

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Sewer Condition Assessment in Lewiston, ME

CITY LOOKING FOR SANITARY SEWER INSPECTION SOLUTIONS

THE CHALLENGE

Since 2014, the City of Lewiston, Maine has relied on Vortex Services to fulfill its sanitary sewer and stormwater pipe inspection and rehabilitation needs. So, when faced with a June 2024 deadline to complete inspections on all its sewer lines, the city knew exactly who to turn to. Due to Vortex Services' long history with Lewiston, the team was already familiar with the city's approximately 139 miles of sewer lines, 16 miles of stormwater pipes, and 26 miles of combined sewer pipes. In addition to inspecting the city's sewer lines, the crew would also assess a portion of the area's manholes.



THE SOLUTION

To kick off the project, the Vortex Services crew pre-cleaned the sewer lines, which vary from 4" to 48" in diameter. Next, they assessed 3,000 linear feet of sewer using Multi-Sensor Inspection (MSI) equipment, which utilizes a combination of sonar, HD CCTV, and 2D lidar technology. Together, these tools measure and denote pipe defects, measure pipe conditions and profile above the flow level, and measure debris below the flow level. Once the MSI service was complete, the team then assessed the remaining sewer sections and several manholes using CCTV inspection cameras.



While inspecting, the crew ran into several remote, overgrown drainage easements. Lewiston's Public Works Department took on removing the debris and plant material to create access points where able while the team set up tracked easement machines and ran remote CCTV camera inspections. When the inspection scans were complete, the crew passed them along to the Vortex Data Team, who then analyzed the data and coded it for asset defects and other condition observations.



CASE STUDY



THE RESULTS

Rock & Brews' owner has been pleased with the Vortex Services team's infiltration abatement efforts. Without these essential repairs, the business could have eventually experienced fluid exchange of groundwater and the beer taps between the ground and the casino.



IMPACT

1 The assessments identified multiple areas of concern in Lewiston's sewer system that, if left unaddressed, could have led to sanitary sewer or combined sewer overflows.

2 Despite the abbreviated project length, Vortex Services completed the job one month ahead of schedule.

3 Lewiston was so pleased with Vortex Services' work that it hired the crew to perform further stormwater line inspections.