



## Access Covers and Gratings

### PAMREX Manhole Cover Case Study

#### PAMREX Reduces Infiltration, Saves Taxpayers Money

##### Primary Selling Points



**REDUCED INFILTRATION**



**AUTOMATIC SURGE RELEASE**

Greenville, South Carolina, and surrounding communities are changing from a rural environment to one that is more developed. The Western Carolina Regional Sewer Authority (WCRSA) faced a particular challenge in areas where increased runoff and changes in flood plain topography exposed sewer lines to severe infiltration.

During storms, the combination of heavy rain and flooding from local rivers and streams resulted in large amounts of water flowing into the lines through leaky covers. Increased pressure from this surcharging would sometimes blow rings and covers right off, leaving a dangerous hole and exposing the system to possible sewer ex-filtration and stormwater infiltration.

WCRSA specified the PAMREX 24" hinged manhole cover to address these problems. This lightweight, ergonomic cover is resistant to surface water runoff, so it prevents much of the initial infiltration of excess stormwater. Thanks to its hinged design, the cover can be left unlocked during storms so that pressure caused by surcharging is automatically released by "burping"; the hinge ensures that the cover remains safely in place to maintain system integrity and safe conditions for traffic. With no raw sewage compromising downstream groundwater and no inflow overloading the treatment plant, the situation in flood-prone portions of WCRSA's service area was dramatically improved.

■ **Reduced Infiltration** — PAMREX covers feature an elastomer gasket ring that helps seal the opening, reducing infiltration of runoff water. No accessories (infiltration dishes, for example) are required. The unit's unique hinge plug helps limit leakage while ensuring that the hinge housing remains clear, keeping the cover safe during routine maintenance. In addition, the gasket ring absorbs traffic shock and ensures cover stability and noise reduction.



■ **Automatic Surge Release** — The self-centering hinge design of the PAMREX cover allows it to automatically open and close while remaining attached to the frame. This feature ensures that back pressure is released safely and quickly, and that the cover returns to the proper position when it closes.

Western Carolina installed 55 PAMREX covers near the creek bed where the surcharging problems were most prevalent, and since then not a single manhole cover has failed. The Authority has also installed additional PAMREX locking covers in low-lying areas and areas where vandalism is a problem, and included the product in its specifications for several special projects and future retrofits.

There are over 6 million PAM units in the ground around the world utilizing technically advanced materials and engineering. Our focus on the needs of the end-user — rather than developing products merely to meet a minimum performance standard — led us to ductile iron, a superior alternative to cast iron in terms of weight, strength and designability.



##### Product:

PAMREX 24" hinged manhole cover

##### Municipalities:

Greenville County and portions of Anderson, Laurens and Spartanburg counties, South Carolina

##### Local CertainTeed PAM Representative:

Porter Associates

##### PAMREX Features:

- High strength, lightweight ductile iron
- Load capacity: 120,000 pounds
- Hinged cover design for easy access
- One-man operable
- Gasket and hinge plug for reduced infiltration
- Optional locking devices available
- Independently tested and certified
- Available in 24", 28" and 32" clear openings

##### Contact Information:



877.351.3323

[www.certainteed-pamcovers.com](http://www.certainteed-pamcovers.com)

