



THE CONNECTION/PROTECTION SOURCE

THE SIMPLE SOLUTION...

WINDOMNET FINDS THE SIMPLE SOLUTION TO CONTROLLING GROUND MOISTURE IN FIBER PEDESTALS!

It might surprise some to learn that Windom, Minnesota is taking a lead position in small city deployment of fiber networks. The city of Windom is a rural community with a population of 5,500 located 135 miles from Minneapolis in southwestern Minnesota. With its recently completed Windomnet project, the city has embraced the latest telecommunication technologies by deploying a state of the art fiber to the premise (FTTP) communications network. Four years in planning and constructed in just eighteen months, Windomnet's expanded Triple-Play Service delivers broadband services to this growing community over a twenty nine mile fiber network.



ADC's OmniReach™ fiber management platform was used as the backbone for the municipal FTTP network. Dan Olsen, Operations Manager for the project, takes great pride in the completed network and its ability to deliver service with exceptional quality and reliability. Particularly gratifying is the network's contributions to the local community and businesses of Windom. Businesses such as Toro Lawn and Garden Equipment, which employs 660 people locally, have enthusiastically welcomed Windomnet's new fiber based service. Windom's Economic Development Director, Jim King, believes the City's new telecommunications system will substantially increase new business development opportunities for Windom because "Windom businesses are now able to

purchase advanced telecom features at competitive prices."

A problem that was tackled early in the project's design phase was the issue of potential service disruptions and damage to the network due to moisture penetration into the fiber pedestals. Windomnet engineers were concerned with the extreme temperature swings of the Minnesota seasons and with the probability of high moisture conditions due to Windom's location along the Des Moines River and Cottonwood Lake. The potential for damage to the fiber from moisture and freeze-thaw cycles is well documented within the industry and such a condition would adversely affect the performance of Windom's fiber network. The Windomnet design team recognized that controlling condensation in the fiber pedestals would be one of the keys for a successful network. In order to accomplish this, a solution for controlling ground moisture was determined to be critical.

Working in cooperation with ADC of Minneapolis, Finley Engineering of Slayton, MN and Uraseal, Inc. of Dover, NH, the Windomnet team settled on the use of Uraseal's Drain N' Seal™ moisture block system as THE SIMPLE SOLUTION to their problem. As a result, every fiber pedestal in the Windomnet network was constructed with Drain N' Seal moisture block in its base.

Economical, reliable and easy to install in the field, the Drain N' Seal™ system was designed to control ground moisture penetration into the fiber pedestals. Far superior to pea gravel systems commonly found in copper pedestals, the unique foam system controls ground moisture penetration into the pedestals and minimizes the effects of condensation.

“When retrofitting OmniReach™ access terminals onto hand holes, it is good practice to create a seal between the above and below ground elements to minimize the effects of temperature—specifically, condensation which can freeze and potentially damage the fiber,” said Randy Reagan, ADC’s Program Manager for hardened outside plant products. “This sealing process helps to minimize the effects of below vs. above ground temperatures.”

After one year of service, and a typical Minnesota winter, the Windomnet system reported no failures due to ground moisture penetration damage in the fiber pedestals. During a spring inspection the interior of the pedestals were found to be clean, dry and functioning as designed.



The Drain N' Seal™ system traps the ground moisture with its proprietary foam structure, thereby controlling the amount of moisture that can enter the pedestal. In addition, if ground or flood waters build up in the pedestal, the proprietary foam structure allows the water to quickly drain out of the pedestal. Superior to pea gravel and other foam systems, the Drain N' Seal™ system delivered THE SIMPLE SOLUTION for Windomnet’s state-of-the-art fiber network.

Coincidentally, Dan Olsen reports that since they have been using the Drain N' Seal™ system, Windomnet has not had any problems with mice in their pedestals! A most welcomed benefit!

The Drain N' Seal™ moisture block system is packaged in single use pre-measured foil packaging that allows the user to easily mix the ingredients without spillage and minimizes waste. The foam is ready to pour into the pedestal in minutes to seal around the fiber cables and fully seals the pedestal base.

For more information on the Drain N' Seal™ moisture block system please contact Uraseal at 800-749-2788.