

Orthos Continues to Empower the “Triangle of Reliability” in Omaha

Eight Years of Repetitious Success at the Platte West Water Production Facility

Success Highlights:

- Structurally-superior underdrain continues to provide repeatable results
- (24) nozzle-based monolithic underdrain filters
- 104 MGD capacity
- 17,280 square feet total
- Commissioned in 2008
- HDR, Inc. — Designer



Monolithic Underdrain Filter Nozzles

Poseidon Filtration Systems™ deliver to municipal clientele complete systems that include PLC-based controls, monolithic floor underdrains, backwash troughs, air header piping, and filtration media.



July 5, 2016 – Orthos Liquid Systems, Inc., (Orthos) the leading manufacturer of nozzle-based filter underdrain systems in water/wastewater treatment, continues to empower the “Triangle of Reliability” built by the Metropolitan Utilities District (MUD) for water customers around Omaha, Nebraska.

Since the 1920s, MUD has provided high quality drinking water for metro Omaha. MUD operates a water production facility (WPF) by the Missouri River northeast of Omaha and another on the Platte River south of the city. However, a third WPF was needed to keep up with twenty-first century demand.

Commissioned in 2008, the Platte West WPF, located west of Omaha, created the Triangle of Reliability, surrounding the metro area with abundant drinking water system capacity for at least the next 30 years.



Platte West WPF Entrance

Twenty-four (24) 36’0” x 20’0” conventional media filters provide 104 million gallons per day of capacity. Filtered water quality is excellent, with final product meeting or exceeding all federal and state standards for safe drinking water.

Suspended monolithic filter underdrains by Orthos were chosen for design over block and triangular lateral types because of the following compelling benefits:

- ⇒ Structurally-superior concrete construction
- ⇒ Construction is less dependent on hard-to-control installation practices
- ⇒ Excellent filter and backwash distribution characteristics

Further, at the end of equipment life cycle, in contrast to a costly lateral underdrain demolition and replacement, nozzles are economically and easily unscrewed and exchanged—the monolithic floor remains part of the civil structure. Thus, facility life cycle cost analyses with appropriate 50+ year terms will routinely identify monolithic underdrains as the prudent choice over block or triangular lateral systems.

“We are honored to be a key part the Triangle of Reliability for the Metropolitan Utilities District,” said Mark Asbrey, President of Orthos. *“Our resilient monolithic filter underdrain system offers ongoing value to our clients for lifetimes to come.”*