

REVOLUTIONARY HDPE PIPE INSTALLED IN TAMARAC, FL



WORLDWIDE INTRODUCTION OF WL PLASTICS' NEW CHLORINE RESISTANT "IDEAL BLUE" WATER PIPE

THE PROJECT: The City of Tamarac, Florida needed to replace a 26 year old asbestos concrete potable water service line that had inherent leaking issues at the joints and was causing costly maintenance and service outages in the area. The city decided to replace the line instead of continuing to repair it. This project replaced 5,250 feet with WL Plastics 10" DR 11 DIPS **Ideal Blue** chlorine resistant potable water pipe.

The project involved reconnecting to fire hydrants and existing water services, several resident laterals, and preserving many driveways, trees, roadway infrastructure, and front yard landscapes. The line extended through a beautiful bedroom community and utilized eight separate static burst installation sections to achieve replacement. With extensive experience of Murphy Pipeline Contractors and utilizing the "static bursting" technique, water services were only interrupted for hours at a time and lawns and infrastructure which was required to be disturbed



was repaired within a day or two of construction. Traffic disruption was minimized. The affected residents appreciated the reduced construction times compared to full open trench replacement.

Ideal Blue HDPE piping was chosen for this replacement due to shallow burial of this line, flexibility and toughness, and the ease of tapping into existing laterals. The majority of this piping is only 3 feet below the surface which can potentially increase the supply water temperature, which in turn, increases the oxidative effects of chlorines in the piping system. This makes **Ideal Blue** the perfect product choice to eliminate the oxidative effects of the potable water system. The co-extruded engineered chlorine/chloride resistant liner is designed to resist these effects for extended years of service life. "The white liner not only resists the oxidative effects in these warmer climates but it looks very clean for the use in potable water applications we install." said Robby Griner of Murphy Piplines.

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The Ideal Piping Solution

THE SPECIFICATIONS: The Ideal Blue water main meets all water class standards for the City of Tamarac, FL, as well as, AWWA C906, ASTM D3035 and ASTM F714 specifications, etc. Ideal Blue chlorine resistant pipe was chosen to resist the oxidative degradation of chlorine in this shallow buried potable water system. It also is the first “chlorine resistant” water main project installed in North America that exceeds the highest requirements of the new ASTM D3350-14 oxidative resistance classification for potable water systems. Ideal Blue piping with its fully engineered white, co-extruded liner is classified as a CC3 classification. Meaning, the Ideal Blue pipe has the best chlorine resistance to oxidative degradation in today’s plastics water potable piping market.

Utilizing the water quality in the City of Tamarac, operating conditions and the characterized oxidative resistance of the Ideal Blue piping material (based on PPI TN-43 performance categorization), the forecast oxidative service life for this installation was projected based on a predictive model developed by Jana Corporation. The engineering and science behind the prediction model have been well validated. This installation is predicted to be unaffected by oxidative degradation for a period >250years. Although the prediction model was well beyond the 250 year data point we felt stating >250 years was adequate and realistic enough to demonstrate the value of the Ideal Blue product for the potable water market.

THE BENEFITS: First the addition of an oxidative resistant product in a shallow burial and warm climate area will ensure long, trouble free system performance. This benefit will reduce or potentially eliminate any future maintenance costs due to leaking and add very long term performance to this potable water system. The bursting technique used took less than 2 weeks to complete the entire project, therefore, reducing installation, infrastructure replacement, man power and equipment costs, keeping residence happy with little destruction to existing properties, as well as, minimizing the presence of construction crews in their neighborhood. This leak free system will not be impacted by tree roots, biological tuberculation on the inner surface, will no corrode, and will resist leaking from any ground movements. The Ideal Blue HDPE pipe is compatible with all other HDPE systems with regards to fusion or installations, as well as with existing competitive products as well.

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