



December 26, 1989

To Whom it May Concern:

The Sonoma County Water Agency (SCWA) is a public agency located in Santa Rosa that provides water supply and drainage improvements for the county. SCWA has been using cast-in-place pipe (CIPP) for about 20 years and finds it to be a good cost-effective alternative to large diameter reinforced concrete pipe and improved open channels.

Two storm drain bypass projects completed during 1989 were Kenwood Creek which included approximately 2400 feet of 72-inch CIPP and appurtenances and Spring Creek which included over a mile of 96-inch CIPP, 1800 feet of 72-inch CIPP, and appurtenances. Both projects had reaches where groundwater was within the trench zone.

These two projects and numerous other projects over the years have proven CIPP to be a viable alternative that meets all structural, hydraulic, and useful life requirements. Maintenance is similar in both types of concrete pipe.

Quality control of workmanship and concrete by experienced contractors and our agency are important factors in all construction projects, especially CIPP projects. Improvements to CIPP machines, such as hydraulic controls, articulation, and full-circle tampers, have also contributed significantly to a quality product.

Cast-in-place pipe will continue to be an attractive construction alternative for the Sonoma County Water Agency because it is economical and does not require manufacturers lead time.

A handwritten signature in cursive script that reads "Richard L. Zieber".

RICHARD L. ZIEBER, P.E. - CIVIL ENGINEER

cl/corres/rl/cipp