



## **Rinker Approved for External Joint Tests in Florida**

The Florida Department of Transportation (FDOT) now allows concrete pipe producers to conduct joint hydrostatic tests using external pressurization methods, as allowed per ASTM C443 Paragraph 9.1.3. In January 2011, Rinker's Fort Myers pipe plant demonstrated the external joint pressure test to FDOT. Until Rinker's demonstration, FDOT had never before witnessed, nor authorized, the external joint hydrostatic test. Rinker demonstrated the external pressure test side-by-side with the conventional bulkhead method. FDOT was impressed, and several engineers actually indicated their preference for the external joint test method. The external pressure joint test is more efficient and allows for convenient joint inspection.

Rinker coordinated with FDOT State Drainage Engineer Rick Renna, P.E. and State Prestressed Concrete Materials Engineer Ghulam Mujtaba, P.E. to establish a procedure for obtaining external joint test authorization. In order to obtain FDOT authorization to conduct external joint tests, an RCP producer must amend its plants' quality control plans and submit an external joint testing protocol for FDOT approval. All of Rinker's Florida pipe plants are approved for external joint tests.

In December 2011, Rinker's Miami pipe plant conducted a successful external joint test on 96-inch diameter pipe. FDOT sent engineers from the State Materials Office in Gainesville and the State Drainage Office in Tallahassee to accompany the local FDOT district personnel observe and certify the joint test. FDOT engineers used flashlights to closely examine the joint gap for any signs of leaks. According to personnel present from the FDOT State Materials Office, the 96-inch diameter pipe tested at Rinker's facility is perhaps the largest RCP size to have been sanctioned for an FDOT joint test.



FDOT engineers inspect a hydrostatic joint test on 96-inch RCP at Rinker's Miami pipe plant on December 21, 2011.