

HR-201 FLY ASH IN PORTLAND CEMENT CONCRETE PAVEMENT - WOODBURY COUNTY

Key Words: Fly ash, Portland cement concrete, PCC

ABSTRACT

Fly ash is a pozzolanic powdery by-product of the coal combustion process which is recovered from flue gases and is generally associated with electric power generating plants. Due to recent cement shortages and the rapidly increasing highway construction costs, the Iowa Department of Transportation has become interested in utilizing fly ash in PCC paving mixes. A preliminary review of the Iowa Department of Transportation Materials Laboratory study indicates that a substitution of fly ash for portland cement, within limits, is not detrimental to the overall concrete quality. The use of fly ash in concrete would reduce the cement consumption as well as provide a potential cost savings in areas where high quality fly ash is available without excessive transportation costs.