

## **A Constitutive Relationship for Collapsible Soils in terms of Stress State Variables**

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### **ABSTRACT**

Soils that are stable when dry, but undergo a decrease in volume with an increase in water content are commonly termed, "Collapsible Soils". This paper presents the results of an investigation of the fundamental mechanism of collapse in unsaturated soils as it relates to stress state variables. A critical value of soil suction was determined at which collapse initiates. It was observed that the critical value of soil suction is that at which the soil begins to imbibe water as exhibited on the soil water characteristic curve (SWCC) curve for imbibition conditions.

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