

DIRECT SHEAR TEST

(Specimen Data)

For use of this form, see EM 1110-2-1906; the proponent agency is CECW-EG

PROJECT				DATE (YYYYMMDD)				
BORING NUMBER				SAMPLE NUMBER				
SHEAR BOX NUMBER				NORMAL STRESS T/sq. ft.				
SPECIMEN NUMBER				CLASSIFICATION				
		BEFORE TEST				AFTER TEST		
		SPECIMEN		TRIMMINGS		SPECIMEN		
TARE NUMBER		CUTTER AND GLASS PLATES						
WEIGHT IN GRAMS	TARE PLUS WET SOIL							
	TARE PLUS DRY SOIL							
	WATER	W_w			W_{wo}		W_{wf}	
	TARE							
	WET SOIL	W						
	DRY SOIL	W_s						
WATER CONTENT		W			W_o		W_f	
INITIAL CONDITION OF SPECIMEN								
AREA IN sq. cm.		A			VOLUME OF SOLIDS IN cc.		V_s	
HEIGHT IN cm.		H_o			VOID RATIO = $(V_o - V_s) \div V_s$		e_o	
VOLUME IN cc = $A \times H_o$		V_o			SATURATION, %		S_o	
SPECIFIC GRAVITY OF SOLIDS		G_s			DRY DENSITY IN lb/cu ft		γ_d	
CONDITION OF SPECIMEN AFTER CONSOLIDATION								
CHANGE IN HEIGHT DURING CONSOLIDATION, in.		ΔH_o			VOLUME IN cc = $A \times H_c$		V_c	
HEIGHT IN cm = $H_o - 2.54\Delta H_o$		H_c			VOID RATIO = $(V_c - V_s) \div V_s$		e_f	
CONDITION OF SPECIMEN AFTER TEST								
CHANGE IN HEIGHT DURING SHEAR TEST, in.		ΔH_o			VOLUME IN cc = $A \times H_f$		V_f	
HEIGHT IN cm = $H_c - 2.54\Delta H$		H_f			VOID RATIO = $(V_f - V_s) \div V_s$		e_f	
SATURATION, %		S_f						
$W_s = \frac{W}{1 + W_o} \times 100, \quad V_s = \frac{W_s}{G_s}, \quad S_o = \frac{W_o}{V_o - V_s} \times \frac{W_s}{Y_w} \times 100, \quad S_f = \frac{W_f}{V_f - V_s} \times \frac{W_s}{Y_w} \times 100, \quad \gamma_d = \frac{W_s}{V_o} \times 62.4$								
REMARKS								
TECHNICIAN			COMPUTED BY			CHECKED BY		