

SUBJECT: VERMONT, 42' MAST ARM & 16' LUM ARM

FOLDER: VTTRAF FILE: 4216

R E S U L T S S U M M A R Y

MAXIMUM COMBINED STRESS RATIO  
 IN EACH MAJOR COMPONENT  
 =====(GROUPS I, II & III)=====

POLE (AT 20.00 (FT)) = 0.90  
 SIGNAL AND SIGN ARM 1 = 0.59  
 LUMINAIRE ARM 1 = 0.63  
 BASE PLATE = 0.56  
 ANCHOR BOLTS = 0.62  
 S/S ARM 1 ATTACH. BOLTS = 0.59  
 S/S ARM 1 ATTACH. PLATE = 0.86

MAXIMUM FATIGUE STRESS  
 RATIO IN EACH MAJOR COMPONENT  
 =====(GROUP IV)=====

POLE (AT 0.00 FT) = 0.77  
 SIGNAL AND SIGN ARM 1  
 ARM TUBE = 1.00  
 BUILT-UP BOX GUSSET = 0.76  
 SIMPLEX BOLTS = 0.57  
 ANCHOR BOLT = 0.43

MAXIMUM REACTIONS APPLIED TO FOUNDATION  
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BENDING MOMENT = 70959 FT-LBS  
 TORSION = 41891 FT-LBS  
 SHEAR FORCE = 1619 LBS  
 AXIAL FORCE = 3273 LBS

MAXIMUM BENDING + AXIAL DEAD WT. STRESS  
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POLE = 19.77 KSI  
 SIGN/SIGNAL ARM 1 = 13.62 KSI  
 LUMINAIRE ARM 1 = 9.21 KSI

RESULTANT DEFLECTION OF POLE TOP  
 CAUSED BY DEAD WEIGHT  
 =====  
 1.34 DEGREES