

ANALYSIS OF VALMONT INDUSTRIES LIGHTING STRUCTURE
IN ACCORDANCE WITH AASHTO-1994 RQMTS. (FINAL DEFLECTED POSITION)
BY MLS 03/31/2010 VERSION Fuse 1.9.0.363

SUBJECT: MASSACHUSETTS, 15' MAST ARM

FOLDER: MATR335 FILE: 15

RESULTS SUMMARY

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

POLE (AT 0.00 (FT)) = 0.65
SIGNAL AND SIGN ARM 1 = 0.51
BASE PLATE = 0.54
ANCHOR BOLTS = 0.52
S/S ARM 1 ATTACH. BOLTS = 0.18
S/S ARM 1 ATTACH. PLATE = 0.47

MAXIMUM REACTIONS APPLIED TO FOUNDATION
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BENDING MOMENT = 25525 FT-LBS
TORSION = 13040 FT-LBS
SHEAR FORCE = 1430 LBS
AXIAL FORCE = 1026 LBS

MAXIMUM BENDING + AXIAL DEAD WT. STRESS
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POLE = 6.76 KSI
SIGN/SIGNAL ARM 1 = 6.94 KSI

RESULTANT DEFLECTION OF POLE TOP
CAUSED BY DEAD WEIGHT
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0.61 DEGREES