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

SUBJECT: MASSACHUSETTS, 25' MAST ARM (WORST CASE LOAD)

FOLDER: MATR335 FILE: 25

ANALYSIS OF ANCHOR BOLTS

GROUP LOAD NO.	CRITICAL WIND DIRECT* (DEG)	MAX. COMB. STRESS RATIO	AXIAL FORCE (LBS)	SHEAR FORCE (LBS)	APPLIED STRESS (KSI) AXIAL	APPLIED STRESS (KSI) SHEAR	ALLOWABLE STRESS (KSI) AXIAL	ALLOWABLE STRESS (KSI) SHEAR	BOLT CONST "K"
1	0	0.13	3554	0	3.67	0.00	27.50	16.50	0.60
2	65	0.71	24359	6295	25.14	6.50	38.50	23.10	0.60
3	60	0.47	16672	3097	17.21	3.20	38.50	23.10	0.60

ANALYSIS OF BASE PLATE

COMBINED STRESS RATIO	=	0.68
GROUP LOAD NUMBER	=	2
CRITICAL WIND DIRECT.*	=	55.00 DEGREES
ALIGNMENT OF THE BEND LINE	=	315.00 DEGREES
BOLT FORCE	=	24687 LBS
BOLT-TO-BEND LINE MOMENT ARM	=	3.00 IN
WIDTH OF BENDING SECTION	=	12.63 IN
APPLIED BENDING STRESS	=	22.52 KSI
ALLOWABLE BENDING STRESS	=	33.26 KSI

* THESE ARE DIRECTIONS TOWARD WHICH THE WIND IS FLOWING.