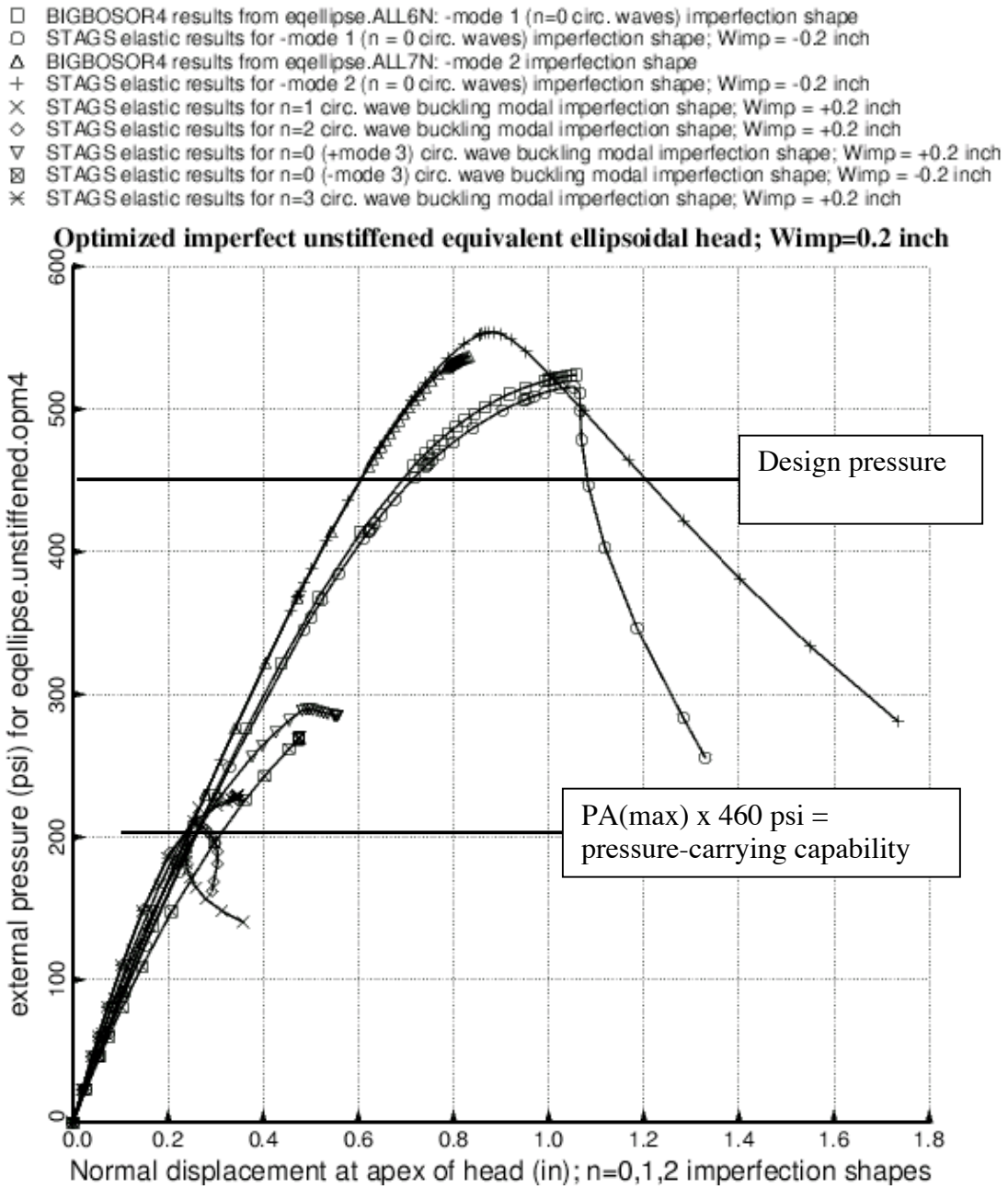

Fig. 94 Nonlinear elastic load-deflection curves for the optimized **imperfect unstiffened** equivalent ellipsoidal shell from BIGBOSOR4 (axisymmetric deformation) and from STAGS (both axisymmetric and non-axisymmetric deformation). The most significant point to be emphasized with regard to this figure is that the pressure-carrying capability of the shell, which is optimized with regard to mode 1 and mode 2 **axisymmetric** imperfections (BIGBOSOR4 models in Figs. 74 and 75), is much more sensitive to non-axisymmetric imperfections (buckling modal imperfections with n = 1 and n = 2 circumferential waves) with the same amplitude, Wimp = 0.2 inch. **The optimized unstiffened shell is therefore under-designed.** Compare with the results for the "thick apex" optimized unstiffened shells plotted in Figs. 161 and 237.