1014-05-1474   **Alice M Dean**, **William Evans**, **Ellen Gethner**, **Joshua D Laison***
(`jlaison@coloradocollege.edu`), **Mohammad A Safari** and **William T Trotter**. *Bar
k-Visibility Graphs.*

Let S be a set of horizontal line segments, or bars, in the plane. We say that G is a bar visibility graph, and S its bar visibility representation, if there exists a one-to-one orrespondence between vertices of G and bars in S, such that there is an edge between two vertices in G if and only if there exists an unobstructed vertical line of sight between their corresponding bars. If bars are allowed to see through each other, the graphs representable in this way are precisely the interval graphs. We consider representations in which bars are allowed to see through at most k other bars. Since all bar visibility graphs are planar, we seek measurements of closeness to planarity for bar k-visibility graphs, such as their chromatic number and thickness. (Received September 28, 2005)