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John Maharry* (maharry@math.ohio-state.edu), Department of Mathematics, 231 W. 18th Ave, Columbus, OH 43210, and **Daniel Slilaty**. *The Structure of $K_{3,4}$ -Free Projective Planar Graphs.*

There are known exact characterizations of graphs with no H-minor for several small graphs, including K_5 , $K_{3,3}$, V_8 , Q_3 and $K_6 - M_2$. Such characterizations for K_6 or the Petersen Graph would settle many conjectures, but seem out of reach for these larger graphs. In this talk, we will present a characterization of $K_{3,4}$ -Free graphs on the Projective plane. The maximal such graphs are generated by four operations on designated faces, or patches, of the embedding. Further, we will discuss progress in the non-Projective planar case, based the list of 35 minor minimal non projective planar graphs. (Received February 07, 2008)