1046-05-1278 **James N Brantner*** (jbrantne@erskine.edu), PO Box 1001, CPO 229, Due West, SC 29639.

On Seymour's Second Neighborhood Conjecture.

Let D be a simple digraph without loops or digons (i.e. if $(u,v) \in E(D)$, then $(v,u) \notin E(D)$). For any $v \in V(D)$ let $N_1(v)$ be the set of all vertices at out-distance 1 from v and let $N_2(v)$ be the set of all vertices at out-distance 2. We provide sufficient conditions under which there must exist some $v \in V(D)$ such that $|N_1(v)| \leq |N_2(v)|$, as well as examine properties of a minimal graph which does not have such a vertex. We show that if one such graph exists, then there exist infinitely many strongly-connected graphs having no such vertex. (Received September 15, 2008)