



## ***Executive Summary***

The Center for Health Research and Rural Advocacy poses many interesting aspects relevant to research analysis. Some of the more interesting features include sustainable aspects for LEED credits, an expansive aluminum curtain wall system for prefabrication, as well as difficult site logistics.

The core research proposed will be to determine the critical LEED credits which pertain to the building envelope design and construction. The newly compiled GSA LEED Cost Study will be utilized as a tool for determining LEED costs and compared to value adding sustainable credits for the exterior skin.

The technical analysis for the Center for Health Research will include determining the feasibility of prefabrication of components for the aluminum curtain wall. Cost and schedule analyses will be done to determine if the project would benefit from a prefabricated system. Quality control issues and concerns will also be raised through site visits and interviews. The prefabricated system will also be evaluated for mechanical and structural integrity.

The final area for study will include the site logistics of the CHRRA. The site is extremely condensed due to the close proximity of the Weis Research Center and Centre Street. Having only one main entrance and exit may cause additional project constraints during key construction activities such as curtain wall construction and pre-cast panel delivery. 3D and 4D CAD models will be developed to determine if the site logistics are adequately planned for these construction phases.