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# Appendix 1: Breadth Studies

## ***Breadth Study #1: Mechanical/Sustainability***

This technical analysis will consist of identifying four LEED® points that would explore different design and construction methods to encourage a Gold LEED® rating on the City Hospital project. The hospital is currently intending to be LEED® Silver certified. From the credits established initially for LEED® Gold rating, a detailed analysis would be conducted on *WE Credit 2: Innovative Wastewater Technologies*. Research options include high-efficiency fixtures to reduce wastewater volumes and on-site wastewater treatment systems.

## ***Breadth Study #2: Electrical***

This technical analysis will consist of investigating the advantages of using a medium voltage generator (4160V) and what effects it will have on the emergency distribution system. The hospital is currently using (2) 2MW diesel powered generator at 480V as emergency power. The basis of my research is to determine which voltage would be advantageous in terms of cost, installation, support, etc.