

1.0 EXECUTIVE SUMMARY

The following report was to evaluate and analyze the existing mechanical system in Bronx High School for Law, Government & Justice. Influences on the objective and design requirements were first discussed. Contributing factors such as, cost and site factors were also described in this analysis. The cost of energy was obtained for a more accurate energy cost analysis. Then the actual design ventilation, heating and cooling loads were obtained and compared to the estimations found from technical report 2. Then with the estimated energy consumption and estimated annual cost was obtained using the energy rates obtained from the previous section.

Another aspect of the analysis was to evaluate the existing mechanical systems by constructing schematic drawings of the existing mechanical system. These schematic drawings are attached in an appendix to this report. Along with these schematic drawings a description of the system was also discussed.

In evaluating the system an in depth look into all major pieces of mechanical equipment was also completed. They are represented in various tables, also provided, in this analysis.

The system overall does not have components that would aid in energy efficiency. The system is a basic system that meets all design requirements set forth by the owner and local energy codes. The owner had specific design standards and ultimately, the design was a complete reflectance. A more in depth analysis must be completed of an alternative system which would allow a basis for comparison on whether the system is efficient or inefficient.