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## Executive Summary

The purpose of this report is to analyze and investigate the different systems of the Boll Family YMCA in downtown Detroit. There are 3 main topic areas that will be covered, along with an in-depth investigation. These topics are as follows, respectively: foundation analysis, interiors analysis, mechanical room analysis, and thesis research.

Each of the main topics will be covered in the same format. The format will give the reader background information on the current system, information on a proposed system, a cost comparison and a conclusion.

The first topic will analyze a different type of foundation used, the second topic will investigate the handrail system, the third topic will look at the piping in the mechanical room and the thesis research will deal with the topic of integrated design management.