

# WHITE PAPERS

## FOOD PROCESSING PLANT DESIGN



# PREFACE

workflow. In this white paper, we'll take a look at how these factors influence design and why a utility matrix is an important tool in your plant's design. We'll also look at how plant owners are using Building Information Modeling (BIM) to make better business decisions.

## FOUR MAJOR DECISIONS THAT IMPACT THE DESIGN OF YOUR FACILITY

### FOOD PROCESSING PLANT OWNERS MUST ANSWER A FEW KEY QUESTIONS PRIOR TO THE DESIGN OF ANY FACILITY

\_\_\_\_\_ – Plant owners often select a location that will be most efficient from a supply and demand standpoint,

may impact the building's exterior and how piping is integrated into the building? Owners and engineers should work

\_\_\_\_\_ – The actual building material used for both the interior and exterior of the building will play an

its weight, and can limit where room and process openings can be placed. Steel buildings may offer more flexibility, but also must be assessed as part of the overall food safety program (i.e., typically, a ceiling would be required). Equipment

LEED requirements – Obtaining LEED certification often requires a more detailed approach to material selection and the overall design. The first step is determining the level of certification the owner desires so designers can properly document and design for those requirements. LEED affects virtually every aspect of the design of the building

more. Once the design has begun, it is difficult, and costly, to modify these systems significantly.

Insurance – As the preferred insurer for most commercial projects, Factory Mutual has rigorous specifications and

# HOW PRODUCT, PRODUCT MIX, AND PRODUCTION VOLUME IMPACT DESIGN







## FOUR WAYS BIM ALLOWS FOOD FACILITIES TO MAKE BETTER DECISIONS DURING DESIGN REVIEW

When performing a design review, BIM gives all of your food processing plant's stakeholders—operations, maintenance, safety, and engineering teams—an opportunity to explore the facility in a three-dimensional mode. Viewing the design

---

---

---

---

Contributions by:

Jason Duff, Vice President of Design Engineering

Rick Ross, CAD Manager

Witt Parrish, Mechanical Engineer

Jon Phillips, Director of Electrical Engineering

Matthew Lane, Senior Design Project Manager

