

**Location**  
Warren, Michigan, USA

**Total Investment**  
Confidential

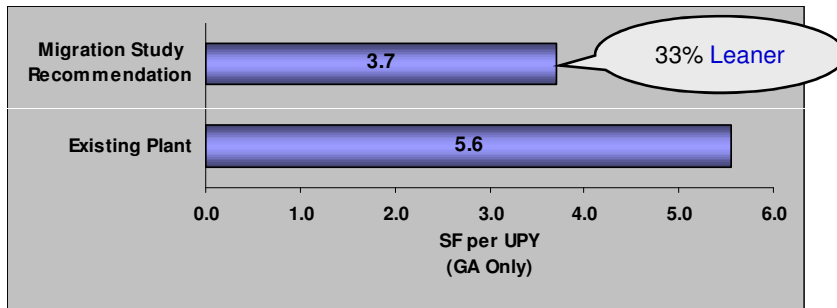
**Project Type**  
Conceptual Engineering

**Global Performance Role**  
Conceptual Engineering  
Layout Development  
Planning

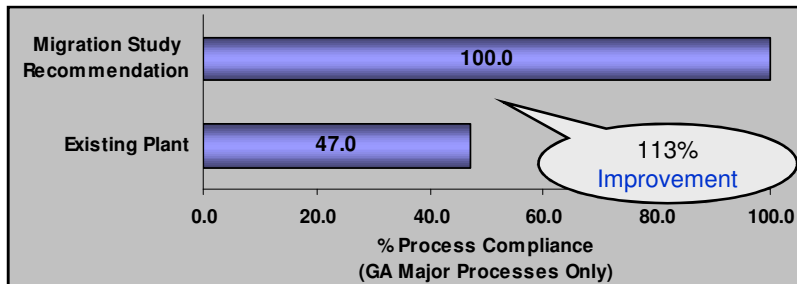
**Annual Volume**  
Confidential

**Results**

**Floor Space Utilization Improvement for Typical Migration Study**  
(Total Manufacturing Sq. Ft./ Units Per Year)



**Process Compliance Improvement for Typical Migration Study**  
(% of Major Assembly Processes in compliance with GM's Standard Bill of Process (BOP))



**Project Highlights**

General Motors selected Global Performance to provide conceptual engineering services to its General Assembly Center (GAC) in Warren, Michigan. Global Performance was involved in the following projects at the GAC:

Development of GM's Global Bill of Process (BOP) Layouts

This work included development of standard Global BOP layouts to be used as the basis for any new general assembly shop implemented worldwide. The layouts were designed to generate assembly shops that were world class in lean, flexible manufacturing that supported built-in quality and were based on GM's common build processes and systems. Layouts were developed for BFI and BOF platforms for line rates ranging from 6 JPH to 60 JPH.

Migration Studies for Conversion of Existing Assembly Plants

Migration Studies were done for eight assembly plants to communicate how the plants could be converted from their current configuration to a leaner configuration that conforms to GM's Bill of Process. Several layout options were developed for each plant, seeking to make improvements in the following.

- BOP process compliance
- Visual management
- Material flow
- Floorspace utilization
- Support of built-in quality
- Support of modular build process

In addition, cost estimates, schedules, and phasing plans were developed for each plant showing how the migrations would be implemented without interruption to normal production operations.