STREAMLINING COMPLEX SPACES AND PROCESSES

# Industrial + Manufacturing Group

**GHAFARI** 

SPACE To Thrive

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INDUSTRIAL + GROUP

# MARKET SERVICES

#### CONSULTING

### Business Process Design and Evaluation

### Discrete Event Simulation

Energy Use and Alternative Energy Strategy Development

Facility Assessment Analysis

Facility Network Analysis

- Feasibility Studies
- Cost Management
- Growth Planning

Internal Operations Planning and Industrial Engineering

- Finished Goods Material Handling
- Inventory Levels
- Material Flow and Value Stream Mapping
- Packaging Equipment
- Process Equipment

• Order Fulfillment

Raw Material Handling Lean Manufacturing Consulting Operational Due Diligence Productivity Improvement Risk Assessment Supply Chain Strategy Sustainability Technology Assessment Transportation Analysis

### PROCESS + EQUIPMENT DESIGN

Conveyor Systems Design Material Handling Applications Design Packaging and Containerization Paint Finishing Systems Design Process Controls

### ARCHITECTURE + ENGINEERING

Architecture and Interior Design Civil Engineering Electrical Engineering Facility Planning and Programming Fire Protection and Plumbing Engineering ICT and Security Systems Engineering Mechanical Engineering Site Master Planning Structural Engineering

### CONSTRUCTION

Construction Management Design-Build Management Equipment Set and Tooling Installation Support Lump Sum and GMax Delivery Owner's Representation Pre-Construction Cost / Benefit Analysis Program / Project Management

COVER: New York Daily News Press Facility PREVIOUS PAGE: Woodward Aircraft Turbine Systems Rock Cut Campus TOP LEFT: NextDiesel Biodiesel Production Facility TOP RIGHT: Woodward Aircraft Turbine Systems Rock Cut Campus MIDDLE LEFT: LG Chem / Compact Power Battery Manufacturing Plant MIDDLE RIGHT: Deere-Hitachi Excavator Manufacturing Facility BOTTOM LEFT: Production Line BOTTOM RIGHT: GM Lansing Delta Township Assembly Complex

# We've been on ENR's Top 10 Industrial and Manufacturing EAC firm list for over 10 years.

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Our integrated team combines process engineering, facility engineering, architecture, and construction services to create comprehensive spaces tailored to the people and operations they house. This approach allows structures and processes to work in unison, which helps our clients streamline day-to-day operations and realize their full productivity potential.

Guided by 6 Sigma and lean principles, we tailor projects to the precise needs of each client. As we work together, we blend experience with ingenuity to find new ways of adding value to complex operating environments.

Automation and Control System Design Building Framing Systems Building Utility Systems Commissioning and Start-Up Conveyor Systems Industrial Ventilation and Dust Collection Interior Architecture Systems Material Handling Equipment Systems and Ops. Material Flow and Handling Paint Finishing Systems Power Systems Analysis Process Equipment Systems and Operations Thermal Process Design Vehicle and Pedestrian Traffic Flow Systems

# SYSTEMS + OPERATIONS

# FACILITY TYPES

Assembly Plants

Casting Plants

Paint Shops

Stamping Plants

Automated Warehouse and Logistics Facilities

Climate-Controlled Distribution Facilities Coolers and Freezers Dry Storage Facilities Manufacturing Plants

Research and Development Facilities



# REPRESENTATIVE CLIENTS

BMW Bosch Brose Cargill Caterpillar Delphi Automotive Fiat Chrysler Automobiles Ford Motor Company GE Transportation General Motors Honda Jaguar Land Rover John Deere LG Chem Nestle Nissan Polaris Industries Ryobi Toyota Valeo Visteon W.W. Grainger Woodward Zeledyne

# OFFICE LOCATIONS

Birmingham, Alabama USA Chicago, Illinois USA Dearborn, Michigan USA Detroit, Michigan USA Greenville, South Carolina USA Indianapolis, Indiana USA Mexico City, Mexico São Paulo, Brazil Baroda, India Abu Dhabi, UAE Doha, Qatar Jeddah, Saudi Arabia

# FOR MORE INFORMATION

Direct any questions to **info@ghafari.com**, and a regional representative will contact you to discuss how a Ghafari partnership can help your business thrive.

