

FOOD PROCESSING

ARCHITECTURE + ENGINEERING + ENVIRONMENTAL + PLANNING



True Expertise + Working Ingenuity



I+S GROUP

Designing for return on investment.

Understanding that each food processing facility has its own unique requirements and goals for production and profitability is paramount when approaching its layout, design and construction. The solution often requires meeting a facility's production timelines and designing unique structural systems with project phasing options to minimize production downtime.

Our ISG team brings you industry-specific expertise with in-house disciplines in architecture, engineering, environmental and planning for high performance new facilities, renovations and expansions. We know that food safety, labor efficiency and maximum production capacity are a priority of all food processors. We deliver safe, hygienic/cleanable designs that meet GFSI requirements, HACCP standards, USDA and FDA regulations, increase efficiencies and protect initial investments and assets.

Working closely with our clients and industry experts, ISG provides an integrated, responsive design process for facilities that includes site selection, master planning, permitting, environmental remediation, water supply, wastewater, refrigeration, process and system integration. The result is a facility that is cost effective, efficient, safe and sustainable to meet the strategic needs of each processor.

EXPERTISE

Architecture
Engineering
Environmental
Planning

WORK

Agriculture
Civic and Culture
Commercial
Education
Energy
Government
Healthcare
Housing
Industrial
Mining
Public Works
Sports and Recreation

**Agropur Ingredients
La Crosse, WI**

With 40 processing plants throughout North America, this global dairy cooperative called on ISG for expansions to their La Crosse, Wisconsin facility. Agropur needed to increase their production and warehousing capabilities at the site while also incorporating production equipment from a different facility.

This required designing new water utilities to serve and route around the new building structure. A new prestressed concrete, masonry and steel structure, designed to house bagging, packaging, washing, processing and warehousing functions encompasses over 45,000 square feet of new multi-level floor space served with stairways and a vertical equipment lift.

ISG worked closely with Agropur to validate building room volumes to accommodate chosen equipment, design roof support and access, as well as hoisting support within the building structure.





Del Monte Sleepy Eye, MN

This national food processing company facility produces the largest case quantities of peas for the company. When looking to renovate their pea canning facility, they looked to ISG for planning assistance in the demolition of the existing building and construction of a new 20,400 square foot building. A comprehensive review of the entire site included traffic patterns, utility layout, storm water management and future warehousing needs.

Timing of construction was critical as the canning process is strictly dependent upon the harvesting timeframe of the peas. ISG adhered to vital timelines and the project was completed on time and under budget.



Primera Foods Britt, IA

Primera Foods, an egg processing company with multiple locations in the Midwest, purchased an existing 86,000 square foot precast building in Britt, IA that was previously utilized for meat processing. The building was converted to an USDA approved egg processing facility including grading, breaking, liquid pasteurization and packaging and spray drying. The renovation included replacing and repositioning walls, replacing several floors, adding drains, designing HVAC systems to balance the air flow and changing traffic patterns in the building as well as designing new electrical and mechanical systems. A portion of the building roof was removed and a new sanitary designed second story was added. The multiple cell lagoon system for wastewater was re-permitted, tested for compliance and redesigned to meet new codes.





**Le Sueur Cheese Company (A division of Davisco Foods International, Inc.)
Le Sueur, MN**

The Le Sueur Cheese Company processes over 50 truckloads of milk and produces over 200,000 pounds of cheese each day. ISG has been highly involved in ongoing expansions of the growing company.

For one project, mechanical engineers worked in close partnership with the process engineers to ensure that required conditions for precise temperature and humidity control were met while extending utilities through the existing facility into the 10,000 square foot expansion area. Another 9,200 square foot renovation and expansion focused on minimizing the downtime at the busy facility. A tower crane was used during construction to avoid disruption of the surrounding buildings on all four sides of the project. Structural, mechanical and electrical systems were also designed with project phasing in mind to minimize production downtime.



**Lake Norden Cheese (A division of Davisco Foods International, Inc.)
Lake Norden, SD**

This project includes the master planning and design of a 42,000 square foot expansion to an existing cheese production facility for Davisco Foods International, Inc. The building addition serves as space for product staging, product storage and final product shipping and receiving. For cost effectiveness and to provide the necessary clear-height space to accommodate the tall racking for product storage, the building is designed with pre-manufactured insulated steel wall panels with a steel beam/bar joist roof structure. In addition, a new four-dock shipping and receiving bay, Trucker's Lounge and restroom areas are a part of this expansion project.

FOOD PROCESSING WORK

- Dairy Foods including Milk Receiving, Cheese Manufacturing & Powder Processing Facilities
- Snack Food and Confectionery Processing Facilities
- Cold Storage
- Beverage & Bottling
- Vegetable Processing Facilities
- Egg Processing Facilities including Grading, Breaking & Spray Drying
- Meat Processing Facilities
- Water Purification
- Wastewater Treatment
- Warehouses
- Shipping and Receiving
- Rail Terminals

FOOD PROCESSING SPECIALIZED SERVICES

Planning

- Environmental & Building Construction Permitting
- Facility Assessments & Systems Evaluation
- Surveying
- Cost Estimating
- Site & Building Space Needs Studies
- Facility Infrastructure Evaluations
- Arc Flash Evaluations
- Building Temperature, Humidity & Pressurization Evaluations

Design

- Facility Planning
- Master Planning
- Civil Engineering
- Structural Engineering
- Mechanical Engineering
- Architecture
- Construction Documents
- Bidding
- System Integration
- Refrigeration Design

Construction & Post Construction

- Code & Compliance Assistance
- Construction Administration
- As-Built & Building Survey





Chankaska Creek Ranch and Winery Kasota, MN

ISG was keenly involved in the master planning, design and engineering of this 15-acre ranch and winery positioned on a hill and surrounded by a forest, farm site and the meandering Chankaska Creek. The two-story, 7,500 square foot building features a tasting and retail room, as well as a kitchen with a mosaic wood fired pizza oven. The lower level houses the production area, containing wine presses, fermentation tanks, lab facilities and the cooperage—an underground barrel storage area. The ranch includes a 10-acre vineyard, trail system, amphitheater and indoor/outdoor event spaces. Multiple bridge paths over the creek create scenic connections to enchanting outdoor venues. Recent updates to the facility include a distillery for the production of fine distilled spirits.



Schell's Brewery New Ulm, MN

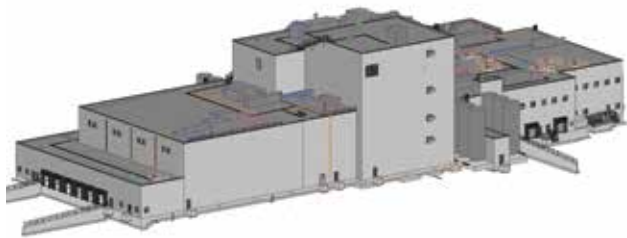
In 1860, August Schell began what has become one of the oldest breweries in America. The quality of Schell's beer has resulted in a legion of devoted customers locally and around the world. A strong partnership between ISG and the brewery has been developed over many years and ISG provides a wide range of services to Schell's, including master planning, architectural design, structural design, site planning and grading, wastewater collection and pre-treatment, and mechanical engineering including HVAC plumbing and process piping. Our work with Schell's includes renovations, expansions and new facilities.



**Milk Specialties Global Food Solutions
Mountain Lake, MN**

Milk Specialties Global Food Solutions is a customized protein ingredient provider serving the sports nutrition and weight loss segments of the food and beverage industry. ISG assisted Milk Specialties with a new 40,000 square foot facility. During master planning for the project, ISG worked with Milk Specialties in assessing the space requirements for their various processing and storage functions and designed space to fulfill the company's warehousing needs while giving careful consideration to accommodate production facility requirements, drying space and areas for a blending and packaging line.

With the company having production facilities located in Wisconsin, Minnesota and Nebraska, ISG has provided a number of services including site selection and evaluation, master planning, land surveying, cost estimating, engineering and architectural design and construction documents.



**Rembrandt Foods
Multiple Locations**

As the leading egg ingredient producer in the United States with global distribution, Rembrandt Foods regularly calls on ISG to provide expert services ranging from new infrastructure planning and design, to permitting and administration, as well as designing improvements and modifications to existing production facilities.

Multiple ISG-designed water and wastewater facilities, including designs for lagoons, new wells and water and wastewater piping infrastructure are helping Rembrandt Foods effectively and efficiently fulfill their processing goals. Infrastructure and building improvements include plant-wide water loop design for access to Reverse Osmosis treated water, as well as evaluations of egg laying buildings and designs, egg receiving, egg breaking, product transfers and product packaging areas. ISG also provides electrical engineering services including back-up power generator design, selection and procurement, site and building electrical infrastructure, lighting and controls design.

ISG

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Services

ARCHITECTURE

ARCHITECTURE
INTERIOR DESIGN
LANDSCAPE ARCHITECTURE
PLANNING

ENGINEERING

CIVIL
STRUCTURAL
MECHANICAL
ELECTRICAL
MUNICIPAL
LAND SURVEYING
TRANSPORTATION

ENVIRONMENTAL

TESTING
ASSESSMENTS
PERMITTING
PLANNING & FEASIBILITY
GEOGRAPHIC INFORMATION SYSTEMS

PLANNING

COMMUNITY
MUNICIPAL
RESOURCES