

Finding the Sweet Spot in Food Plant Location Decisions

As new food plant construction continues in 2020, companies must take into account the factors most critical to their bottom line in order to maintain profitability for the life of the facility.

David Dixon, President, davidcdixonLLC (Q4 2020)

Who doesn't like cookies? The food industry usually avoids NIMBY objections. The facilities smell nice, they are not too big, and they often have a company store open to the public! This article is focused on food plants in the \$20 million to \$80 million range, perhaps 40,000 square feet to 120,000 square feet. In future articles we can discuss finding and retrofitting existing buildings and the site selections of more challenging operations like animal slaughter.

A Strong Sector

New food plant construction has continued in 2020. And as the year progresses, owners are also restarting projects that were delayed due to the uncertainties from COVID-19. The sector continues very strong during the pandemic. Producers for retail, as expected, are overjoyed that people are re-learning to cook at home: Their sales are booming. Suppliers for food service also are not suffering, and many by now have made investments to retool for retail products.

{{RELATEDLINKS}} And yes, alcohol sales are up more than 25 percent year-to-year!

Sean Barr, director of Project Planning at The Austin Company, says it is "full steam ahead for the meat and poultry sectors. Automation investments are primary. Companies can't find enough qualified labor. Retrofits to keep workers safer, such as layouts that allow greater spacing between workers or modifications to eliminate touchpoints, are being done by most of our clients."

Food safety continues to be a leading justification for new plants. Old plants either are too expensive to upgrade, sometimes just cannot be brought up to best practices due to challenges like low ceilings, or the business interruptions required to do the work are too impactful to the business.

Mergers and acquisitions, driven in considerable part by activity of the private-equity sector, have led to new plants that combine several operations to reduce production costs or improve customer service levels. New plants have also been announced by non-U.S. owners wishing to produce in-country to avoid barriers to entry such as tariffs. One trend that has received much ballyhoo, reshoring, doesn't seem to be happening, regrettably.

Site Selection Priorities

Although the ranking changes somewhat based on the specific sector, the priorities for site selection in the food sector, continue to be:

- Availability of qualified labor at an acceptable wage rate
- Logistics that minimize costs and support high customer service: short shipping times to suppliers and customers, the availability of backhauls, and in some sectors, rail sidings, intermodal, or ports nearby — Quick and unimpeded access to the highway interchange is critical.
- Reliable power and, if possible, a site that is fed from two utility substations
- Sufficient water: quality, capacity, pressure, and reliability
- Sufficient wastewater treatment, with discharge permits that are not too expensive nor contain risky penalties for exceeding limits
- No hazards from adjacent sites, or on-site environmental contamination, and as the risk of climate change finally is fully embraced, risks of flood, hurricane, or wildfire — These and other business interruption risks are priority factors.
- Manageable geotechnical issues
- Mergers and acquisitions have led to new plants that combine several operations to reduce production costs or improve customer service levels.
- Speed to market — Food plants need to be designed and built in a hurry; 12 to 15 months from initial kickoff of design to start of production is typical. Lengthy site searches need to be avoided. Anything that impacts schedule, such as wetlands mitigation or other permitting challenges, is scrutinized.
- Of course, the current low cost of gas makes sufficient gas to the property a necessity.
- Due to the magic of depreciation and a focus on annual operating costs, initial capital is often not the driver some think it is. However, extraordinary site costs — such as huge tie-in fees for utilities, significant retaining walls, rock removal, or added costs for unusual

foundations — can knock a site out of competition.

An Ideal Site

Once the upstream and downstream logistics considerations are decided, the following attributes would make a site ideal:

- Clear title and no need for rezoning or combining parcels
- No impediments to fully develop the site, such as excessive buffers or utility easements running through the property
- No nearby hazards, such as odors, groundwater contamination plumes, schools, airports, CAFOs, or busy at-grade rail crossings
- A prepared pad in an industrial park often is perfect: storm water might be preplanned off the parcel, geotechnical risk is avoided, utilities are at the street or very near, incentives may already be available for new owners, marketing materials are in place that inform demographics, area amenities, or other relevant statistics. Relationships with local or state EDAs may be strong. Community acceptance issues likely were confronted earlier when the park was developed.
- Of course, big and flat would be great!

How the facility presents from the highway and signage or special visual elements can be an attractive benefit. And if this ideal site is within 45 minutes of a mid-size or large urban area, you might have bus routes, a pool of labor, improved logistics, a larger Publicly Operated Treatment Works (POTW) that is more than happy to receive high-BOD waste, a strong community college network, and other benefits that a rural or small-town location cannot offer.

Branding and the relationship to site location is worth mentioning. How the facility presents from the highway and signage or special visual elements can be an attractive benefit. Most Midwesterners fondly recall the Hormel Chili can visible from I-90!

Technical Topics

A few of the topics mentioned above deserve a bit more technical explanation:

A large municipal POTW can accept high BOD waste streams from food plants because the normally high percentage of residential wastewater is lower in the nutrients that keep the bugs happy. Food plant waste streams help feed those bugs. And food plant waste streams don't present the challenges that other industries do such as metals or toxic contaminants.

A flat site is good, but a slight slope from front to back makes designing storm water runoff elements much easier and cheaper. Geotech risks include soils that are difficult to compact or have low bearing pressure that requires deep foundations. Food companies love simple spread footings. And don't get me started on the dreaded "expansive soils" that require structural floor slabs.

Labor Considerations

Labor deserves more discussion also. As automation replaces low-skilled labor, food plant workers need to become more skilled at machine operation. Modern owners also encourage contributions from line associates to identify operating improvements. This requires better training, higher skills, and the avoidance of high turnover. Owners who balked at paying a \$10 wage for untrained temps to pack boxes are slowly, very slowly realizing they need to hire \$20+/hour labor to run a \$1 million filler or \$1.6 million slicer.

As automation replaces low-skilled labor, food plant workers need to become more skilled at machine operation. A community college with close alignment to the needs of manufacturing is a desirable source for operations technicians, mechanics, and electricians who continue in short supply. Since the U.S. has suppressed unions for decades, apprenticeship training programs also disappeared, and community colleges are filling the gap. "Vo-tech" schools are no longer seen as a route only for those who cannot get admitted to a university. The Germans, in particular, are very frustrated at our inability to prepare Americans for working in factories, and they struggle to implement some of their apprenticeship systems in the U.S.

In Sum

It is important, I believe, to mention my background is in operations, design, and construction. However, it is too common that those departments often are not on point for site selections. The CFO perspective that focuses on initial land cost, grants, or other incentives must be balanced by an analysis of both capital and operating costs rolled up into the impact on Cost of Goods Sold (COGS). Doing this type of analysis helps decision-makers understand what is most critical to their bottom line. Hourly labor rates? Tax exemptions? Free-trade zones? Cost of land and site development? Electricity costs? Savings on materials and ingredients?

A bad site selection will be a drag on profitability for the life of the facility. Savings that were forecast to justify the investment will not be realized. It is a complicated decision involving many perspectives in a company and worth the time of a broad and dedicated team.

All contents copyright 2021 Halcyon Business Publications, Inc.