***Food Engineering*’s JUNE 2021 Food Plant Construction/Renovation Survey (3 pages)**

**INSTRUCTIONS**: Please list all **U.S., Mexico and Canada** food/beverage/nutraceutical/CBD manufacturing plant projects (**human or pet food/beverage and cannabis-related food/beverage**) of $1 million (US) or more planned, started or completed between **January 1, 2020 through December 31, 2020**. Enter one project per row as shown in the example entry. To navigate the table, use the **tab** button. To start another row, simply use the **tab** button when in the last row, last column. There is no limit to the number of projects you can list! When finished, save your file and email it back to us at **labsw@bnpmedia.com**. Note: Projects can include processing spaces, equipment or automation upgrades, distribution centers/logistics, etc. Please don’t include corporate offices or R&D unless the project also includes processing and/or packaging as well.

**Please note: For any projects that are proprietary (that is, you can’t list the client name), please do not include them in the list as we can’t use them in the final table. ALSO—IF YOU CAN’T PROVIDE COST OR SQ.-FT. INFO, JUST LEAVE THE SPACE BLANK--No need to use N/A or the like. If you don’t fill in the month and year, I will just use “20” to show it was recorded for the calendar year 2020.**

**→ Important—Before you send this back, please answer the questions on the second and third pages of this survey!**

**Your name:**

**Your company’s name:**

**Title:**

**Phone number:**

**Email address:**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Food/Beverage Company Name** | Plant Location**(City)** | Plant Location**(State)** | **Primary Products Made**(or purpose—such as cold storage) | Type of project(Enter **New**, **Ren.** for **Ren**ovation or **Exp.** for **Exp**ansion) | **Square footage in thousands (rounded)** (e.g., 35,200 sq.-ft. = 35 or 1 million sq-ft = 1000) | Estimated cost in $ millions (rounded)(projects of $1 million or more only)Enter 15 for $15 million | **Architects/Engineers** | **Month & Year** of actual or estimated completion date **(e.g., 7/18 for July, 2018)** |
| Example Beef Inc. | Anytown | PA | Beef | Exp. | 35 | 15 | John Doe A&E Co., Ltd. | 7/20 |
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**→ Please return this form as a Word document via email by April 10, 2021 to labsw@bnpmedia.com**.
**Wayne Labs, *Food Engineering*, 617 Hampton Court, Doylestown, PA 18901. Questions? Call 1-215-345-4548.**

**→ Please be sure the words Plant Construction Survey are in the subject line of your return email; this will direct the email to the appropriate folder.**

**Please participate in our yearly feature article by responding to the following questions on the next two pages!**

**Please comment on trends in food manufacturing and plant construction.**

**Your name:**

**Your title:**

**Your company:**

**Your phone number:**

**Your email:**

**1. What trends do you see emerging in construction projects? To what do you attribute these trends? Do you have a sense of what the business climate for both you and your food and beverage clients will be like under the Biden Administration? →See Hot Trends Survey last page and please respond according to directions!**

Response:

**2. How has the coronavirus affected your clients’ and your business? How has the coronavirus affected consumer choices/tastes—and how have you accordingly helped food and beverage clients meet consumers’ changing needs through design and construction? Has COVID-19 affected new and/or retrofit facility designs?**

Response:

**3 My preliminary findings for 2020 projects are showing that the ratio of greenfield to brownfield facilities is increasing sharply. What are your findings? Are clients wanting to build new, rather than dealing with and revamping aging facilities? Why or why not? How have mergers and acquisition affected sites?**

Response:

**4**. **Food safety and security: Are food and beverage clients finally up to speed on FSMA? Has there been any concern in facility security design in terms of recent riots and political unrest or other sabotage? What security design measures have you taken in projects to protect food and plant staff and team members?**

Response:

**5. With 2020 having set a record for** [**22 weather-related, billion dollar disasters**](https://www.noaa.gov/stories/record-number-of-billion-dollar-disasters-struck-us-in-2020)**, have there been any changes in thinking related to site locations for food and beverage facilities? What weather-related (if any) issues are processors especially concerned? What about proximity to raw materials/ingredients?**

Response:

**6. What trends do you see in automation? For example, integrated security, HVAC, energy, robotics/cobotics and process controls; more integrated processing/
primary packaging/secondary packaging; other needs such as warehousing, logistics; etc. How about tradeoffs for speed vs. quality and changeovers?**

Response:

**7. Are there any other trends that you’d like to discuss (e.g., plant safety, machine safety, human aspects, labor force, LEED, sustainability, design tools, etc.)?**

Response:

**To whom should we send this questionnaire next year (name, title, phone, email)?**

**Thank you for your assistance with this project—but, please, do the quick survey, “Hot Trends for 2020-2021” at the end of this document!!**

**Please return this form via email by April 10, 2021 to labsw@bnpmedia.com; put Plant Construction Survey in the subject field of your email!** Wayne Labs,*Food Engineering*, 617 Hampton Ct., Doylestown, PA 18901. **Questions? Call 215-345-4548**

**Hot trends for 2020-2021**

Identify the **five hottest trends** listed below that (Column A) affect you as an architectural & engineering/construction firm, and (Column B) are of concern to your food and beverage clients/customers. Rate the five trends you’ve selected from **5** for **most significant** to **1** for **least significant**. If a category isn’t there, feel free to add it at the bottom, but please **fill in only five choices for each column**. Please return with the other responses.

**A&E/C Name: Your name:**

|  |  |  |
| --- | --- | --- |
| **Possible trend:** | **(A) A&E/C importance** | **(B) Importance to a F&B processor** |
| Ability to change design when building |  |  |
| Ability to easily manage subcontractors |  |  |
| Allergen separation design |  |  |
| Automation: process control, robotics, packaging, etc. |  |  |
| Capital availability |  |  |
| Distribution center with AS/RS capability |  |  |
| Employee welfare, break-rooms, cafeterias, exercise rooms |  |  |
| Energy costs/conservation (drives, stack recovery, etc.) |  |  |
| Environmental/air handling |  |  |
| Facility that allows visitors to see operations without dressing |  |  |
| Fast project deployment |  |  |
| Flexibility in plant design to accommodate flexible manufacturing |  |  |
| Food safety: FSMA regulations/GFSI (design. layout, etc.) |  |  |
| Increasing production to meet demand |  |  |
| Integrated energy/process/security/access control systems |  |  |
| Internet access |  |  |
| LEED and/or sustainability-related design principles |  |  |
| Old plant vs. build new—Easier to build new than upgrade |  |  |
| On-site wastewater treatment |  |  |
| On-site wastewater treatment/energy recovery system |  |  |
| Overall cost/controlling costs |  |  |
| Plant security/video system/access control |  |  |
| Power back-up capability |  |  |
| Raw vs. cooked (RTE) side design |  |  |
| Scheduling equipment arrival to job site |  |  |
| Site location related to extreme weather conditions |  |  |
| Site location related to transportation, logistics, utilities  |  |  |
| Sustainability (energy, water, etc.) |  |  |
| Upgrades to existing equipment |  |  |
| Upgrades to existing plant interiors |  |  |
| Utilities: Electricity, natural gas, oil, etc. |  |  |
| Virtual reality/augmented reality/3-D facility design tools |  |  |
| Workforce availability (line workers) |  |  |
| Workforce availability (tech staff) |  |  |
| Workplace safety |  |  |
| Other: Fill in |  |  |
| Other: Fill In |  |  |