



HAUCK ARCHITECTURE

What Makes A Site Great For A Brewery?

Part Two

In Part One, we reviewed how much space you need; what zones are appropriate for your use; and physical amenities to consider. It is equally important to review the utilities required as well.

Fuel Requirements

It is imperative that you know which fuel you will use for your brewhouse. A direct/indirect fire burner or boiler fed brewhouse will require natural gas. Propane is an option, but be sure you understand the efficiency of propane and perform a cost analysis of propane versus natural gas.

Electrical brewhouses are also available, but, once again, a cost analysis should be performed to make sure that is an efficient system for the long term. Electric can be a great alternative for small systems, but make sure the space you are considering has enough electrical capacity or can be upgraded, and for what cost.

Electrical Needs

The electrical needs of your brewery are very important as electrical upgrades can be expensive. Knowing what your electrical loads will be is key to locating a space that is right for your brewery.

Early in the design process, an analysis should be performed based on your brewery equipment. Voltage, amperage, and phase are all important. Most small craft breweries need approximately 400 amps of 120/240 volt electrical service, but, unfortunately, many spaces do not have that amperage. Voltage and phase can vary as well, but sometimes that can be dealt with depending on what voltage and phase your equipment is available in from your supplier.

Not only should you consider the electrical loads for all of your brewery equipment (brewhouse control panel for augers and valves; cellar controls for glycol valves; product transfer pumps; glycol chiller; cold box fan coils and condensers), but you must also factor in miscellaneous electrical requirements, such as lighting, convenience outlets, HVAC electrical loads, signage, tap room amenities, and possibly kitchen equipment.

Understand your needs and the cost to upgrade the electrical service early so that it is included in your construction budget from the start. Sometimes, only certain voltages and phase are available in a particular area from your utility company, and there may be a limit on what



amperage is available. Not only is it important to understand the cost of an electrical upgrade, but also the feasibility of doing it.

Water Requirements

Water is obviously an important utility needed for any brewery. The size of the line coming into your space or building, along with the pressure, will determine the flow rate of your water supply. Ideally, you will have a minimum of 1 inch water line feeding your space. Knowing what the flow rate will be will help you determine how long it will take to fill a kettle, or if a holding tank is necessary. If your operation will need a larger water supply, talk to your architect, plumbing engineer, and/or contractor about what it will take to upgrade the water service. Also check with your utility company about the cost, process, and potential water and sewer capacity fees that might impact your project and budget.

Sloped floors are great: hosing down floors; cleaning tanks and kegs; or even hosing yourself off after a blast from a blow off valve are all part of brewing. Therefore, drainage in a brewery is important. Most buildings will have a 4 inch underground domestic wastewater drain line but it is important to know where it is; its condition; the direction it is flowing; and how deep it is.

The location is important so you can determine where to tie in your new drain lines. Knowing if it is in bad shape and needs to be replaced is a cost you should factor in from the beginning so that it is included in your budget. The direction of flow is important as it relates to the depth: the depth at the furthest point and where the line enters the building will tell you if you can tie into that existing line with a gravity flow, as adding a sump pump can be costly and an operational hassle. Sump pumps can work, but you want to know that before designing the wastewater system.

Another consideration of wastewater is the makeup of that waste, and what your municipality will allow into that system. That is a more complex topic suitable for another article all its own.

Heating, Ventilation & Air Conditioning (HVAC)

Your HVAC system needs will depend on your mix of manufacturing area and customer area as they have different mechanical needs. When looking at a potential space for your brewery, have the existing HVAC system evaluated by an experienced HVAC contractor so you know the condition and capacity of that system. That will help determine what added costs you might accrue to maintain, repair, replace, or expand those systems.

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Fire Sprinkler System

Fire sprinklers make every brewery and tap room design easier. Most building codes do not allow for the mixing of manufacturing and assembly spaces without fire sprinklers. There are limitations to allowable building area based on the type of construction of the building and occupancy. Having fire sprinklers makes dealing with those much easier.

If you are in a multi-tenant building, your architect should perform a building area analysis early on to make sure the building works for your proposed use. That analysis needs to include all tenant occupancies within the fire area. Some building codes have exceptions to required separations between manufacturing and assembly uses, such as small tap rooms (less than 50 persons and less than 750 square feet). Each jurisdiction might calculate those occupant loads areas differently (for example, does the bar itself count, and what occupant load factor will they count for different use areas, such as event spaces and bar seating). Having sprinklers makes designing your space much easier; if the space you are looking at does not have them, understand the limitations that causes or the potential cost to add them. Code requires an entire building fire area to be sprinklered, not just your suite, so adding them to a tenant space in a multi-tenant building that you are leasing may not be a good use of your project dollars.

Conclusion

Size, physical characteristics, zoning, and utilities are all critical aspects of locating a site that is appropriate for your brewery. Understand early what you are looking for, and the cost impact to upgrade any of these features. These may not be deal breakers, but should be in your budget to avoid unexpected costs or surprises.



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Hauck Architecture is the go-to architectural firm for breweries, working with over 75 craft breweries to date. Mr. Hauck, an avid home brewer and craft beer enthusiast, possesses the skill, experience, passion and reputation for planning and executing a successful project, while coordinating with all engineering consultants, contractors and governmental authorities.

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