

- Electrical – Frequently Asked Questions by Brokers and Tenants

1. How many watts per square foot is the building designed for?

Most Class A office buildings are designed around 15 watts/sqft. A warehouse facility is typically designed around 2.1 watts/sqft, industrial facilities are 10 watts/sqft, and R&D are 20-30 watts/sqft. Certainly the watt/sqft for receptacle power varies with many R&D facilities designed around more demand for receptacle power.

2. What voltages are available in the building?

The typical voltages include 120Volts for receptacle, 277Volts for lighting, and 480Volts for motors. There are instances where specialty equipment will require 220V. Confirm the use of specialty equipment and power requirements.

The selection of a voltage type for a particular system (120V for receptacles, 277V for lighting) is designed for efficiency in distributing the power and keep the wire and conduit sizes to a minimum.

3. What is the electrical service capacity for the building?

The electrical service capacity must always be confirmed with the utility company servicing the area where the facility is located. The service capacity cannot be determined by the amperage rating of the main distribution board in a building.

4. What are the lead times for a new service from PG&E?

The lead time for a new service from PG&E is approximately 4 to 6 months. The majority of this time is taken by the engineering performed by PG&E to design the new service and integrate it to their existing circuits in the area. A good portion of this time is required to schedule their crews for the actual installation of cabling, service transformers, and terminations of cables.

5. What are the lead times for a new telephone service to a new facility?

The lead time for a new telephone service is approximately 1 to 2 months.

6. Is there an emergency generator available?

An emergency generator is available many times for emergency/life-safety requirements only. Confirm that the generator can be used for use other than emergency/life-safety if equipment needs to be operational with a back-up emergency power source.



7. Is a fire alarm system required?

Fire alarm requirements vary from one municipality to another. In a typical 2-story office building the fire alarm requirements can be minimal. The scope of the fire alarm improvements, if any, will need to be confirmed with the local fire department.

8. In a multi-tenant facility, is there a central security control room?

Many facilities have a central security system that allows for expansion and use by multiple tenants. Confirm the type of system, expansion capabilities, and reporting methods.

9. What forms of multi-tenant power metering are available?

Power metering is very flexible to different types of applications. Multi-tenant metering is available for installation at a main distribution board or at individual panel boards that serve specific floors or areas in a building.

10. What infrastructure is available for tele/data services?

Most facilities have empty conduits for installation of fiber optic and alternate service providers. The types of services available at a specific location and the location of access to these services vary per area.

11. Should electrical systems be done design/build or plans and specifications?

The cost and delivery of electrical construction works very well on a design-build format. The design-build method allows for the construction budget to be maintained more effectively and can reduce the overall design and construction schedule. By its nature, design-build creates greater communication among the owner, architect, and design-construct teams.

