



### **15.5.1 Contractor Supplied Materials**

Following specifications 651.2 and 670.2, all products supplied by the contractor should conform to specification requirements on the department's approved product list. For materials not on the approved list, refer to Standard Specification 670.3.3.1.

### **15.5.2 Communication Requirements**

Closed-circuit television cameras require communication methods offering larger bandwidth than that required for typical ramp meter or detector station controllers. Communication requirements also are contingent upon whether full-motion video is desired, or if slow-scan images are adequate. The communication medium selected for camera sites is open to the following communication types as described in Chapter 50, Communication System.

- Leased Communications - Either leased analog video (fiber optics) for full-motion video or leased high-speed data lines (ISDN, 56k) for slow-scan images.
- State-Owned Communications - Fiber optic communications for full-motion video.
- Wireless Ethernet Radio- full motion video or slow scan images, capable of bandwidth between 3MB to 20 MB.

### **15.5.3 Power Requirements**

A 100 Amp, 120/240 volt, single phase, three wire underground electrical service is required for electrical service installation. Typically, two controller cabinets can be powered by a single 100-amp service. The electrical service will be furnished and installed by the local power company up to a demarcation point, which consists of an electrical service (meter) pedestal. The electrical service must conform to the requirements of the local power company. The location of the electrical service must receive approval from the utility company. The electrical service will include two 50-amp circuit breakers rated at 22,000 AIC. The requirements for power cable between the electrical service and controller cabinet can be found under the Cable Routing section of this chapter.

At locations which require a remotely located electrical service, a 100 Amp outside rated breaker box with space for 6 circuits, but no main breaker, will be attached to the side of the cabinet. Also, a 50 Amp single circuit breaker rated at 22,000 AIC will be installed within the breaker box to serve as a local electrical service disconnect point.

### **15.5.4 CCTV Camera Construction Standards**

Construction details, Standard Detail Drawings, and Special Provisions can be found in Appendix 70.