

ALPR SYSTEM OPTIONS. The ALPR system will require outside power (110 VAC) to operate the system at the various fixed location. This is the most difficult aspect bringing this type of system in to operation; since it may require city power to each location, mounting pole(s), permissions from outside agencies (CALTRANS and Alameda County), etc. The following are three options developed to address this limiting factor.

Option A: Extend power from existing city power sources to the ALPR system locations. Estimate could range from \$5,000 to \$45,000 per location. Advantages: Stable power to ensure operation of the equipment at all hours of the day and night. Disadvantages: Expense, permissions for land use (CALTRANS and Alameda County), engineering requirement, and fixed system that cannot be moved once in place.

- Hardwire power from city power source (metered or agreement between Alameda Municipal Power and the police department for usage reimbursement) and bring power the two ALPR systems at both Tubes.
- Establish metered service or reimbursement for power from Alameda County and hardware from existing power sources to the mounting location for ALPR systems. Two systems at the Park Street Bridge, two systems at the Fruitvale Bridge, and one system at the High Street Bridge.
- Establish metered service or agreement with AMP for the three systems at Doolittle and Harbor Bay Parkway.
- Establish metered service or agreement with AMP for the three systems at Ron Cowan Parkway and Harbor Bay Parkway.

Option B: Solar option for all location. V5 Systems testing their solar power/battery system with Vigilant ALPR system (Exhibit 4). Price estimate per ALPR system was estimated to be \$6,000. Advantages: Lower cost than fixed power source option, mobile (can be removed and relocated), non-reliant upon other entities for power (County or CALTRANS), and clean energy. Disadvantages: Relies on sun for power and battery recharge so ALPR system may not function during times with solar power is not available or batteries are low on energy. This system could be tied into part time power sources, with permission, to subsidize solar power.

Option C: Hybrid System: After technical review of the location, determine the best power source option (hardwire or solar). Cost would vary depending upon what solution was chosen. Advantages would range with the selected power solution along with their disadvantages.