"Wireless" Traffic Control Solutions

APPLICATION: *RRFB System for Mid-Block Crossing*
LOCATION: Scottsdale, Arizona, U.S.A.

Description

The City of Scottsdale, AZ has installed its second RRFB system using equipment manufactured by Solar Traffic Controls. The system was installed as a mid-block crossing to allow users on a canal trail to cross a busy collector back to a residential neighborhood.

The location consists of two travel lanes in each direction, a left turn lane on the SB side of the road and a landscaped median which offers a pedestrian refuge. Previously, the crossing had only static signs to warn motorists of the pedestrian crossing. As part of a larger improvement project, Scottsdale re-striped the crossing and the approaches, enhanced the signage and added the STC RRFB system to heighten pedestrian safety.

STC furnished a 3-pole system for the project with a design based on the Solar Ped-X 'wireless' crosswalk control platform. Each is a self-contained system with solar array, battery bank and control electronics, and includes control logic tied into an FHSS radio modem to allow the units to communicate with each other.

Each pole in the system is equipped with a Polara Bulldog push button to prevent vandalism. To ensure proper operation, the three units perform a periodic check of each other via radio. In the event a unit is "lost" in the group and stops communicating, a fault flash pattern is displayed by the master unit. The fault flash is coded to inform the user of the source of the problem.

The RRFB lamp assembly deployed for the project is an STC 80BKRRFBHS-T4 on the curbs. This model RRFB is a dual-faced unit with 3-inch x 7-inch lamps on each side of a 2-inch x 4-inch aluminum frame assembly. It also includes a high intensity pedestrian indicator lamp on the end of the lamp assembly facing into the crosswalk. Although the original spec for the project did not require the confirmation lamp, STC provided it as a free upgrade. The median unit uses an STC 80BKRRFBHS-T6 assembly which has quad 3-inch x 7-inch lamps and no pedestrian confirmation lamps. Each unit was outfitted for mounting on a 4.5-inch O.D. pole.

continued on next page

From site visits done by STC, acceptance of the systems by local users appears good based on use seen during these visits. Motorist compliance to stop for pedestrians appears to be very good as well. Scottsdale is currently testing another RRFB system within the city to begin formulating standards for use at other locations. Installation of the equipment was completed by Kimbrell Electric of Glendale, AZ. STC applications engineer Jimmie Dixon directed the project.

Take these steps to insure the success of your solar-powered project:

1. Location - identify the site of the application; for example, the nearest town, village or city and state.
2. Load - specify the number and size of lamps, timers or other controls (anything which draws power).
3. Duty Cycle - determine how many hours per day and which days per week the load will draw power.

Go to "Send us your requirements" at www.SolarTrafficControls.com/support/requirements.php for more details.

Solar Power: a free source of energy

STC's solar-powered systems are designed for quick and easy installation in the field. Our careful front-end engineering minimizes your installation costs and provides years of trouble-free operation. The standard solar power system includes the solar array, system enclosure with all the necessary electronics, color-coded wiring harnesses, sealed batteries and full documentation. DC LED lamp kits can also be purchased. These include the LED beacon, lamp housing and mounting hardware.

STC Systems are Cost Effective

Our solar flasher systems allow you to stretch your budget to obtain the traffic safety devices you need at affordable prices. Most systems are equivalent to the cost of obtaining an AC power drop. Battery life is typically three to six years; less expensive than grid electricity for the same period of time.

Solar Traffic Controls (STC) provides solar-powered traffic control systems for city, state and federal DOTs; police, firefighting and public works departments; facility maintenance and plant safety industries. Our primary products are solar-powered flashing beacon systems used for school zones and 24-hour applications. We also supply specialized flasher systems using environmental sensors and custom communications packages to control the flashing beacon systems. Our product spectrum also includes wireless power systems for ITS, EMS and HAR. STC's products and services are sold through a network of regional distributors who offer technical support for your project.

For more information: Solar Traffic Controls, LLC • 1930 East Third Street, Suite 21 • Tempe, AZ 85281-2929 USA
Tel: 480.449.0222 • Fax: 480.449.9367 • info@solar-traffic-controls.com • www.solar-traffic-controls.com