



## "Wireless" Traffic Control Solutions

**APPLICATION:** Upgrade to 'Wireless' System with STC Solar Ped-X  
**LOCATION:** Buckeye, Arizona, U.S.A.

### Description

Buckeye, AZ, a suburb west of Phoenix, has upgraded an existing crosswalk to a solar-powered Ped-X system from Solar Traffic Controls.

The town had previously purchased an 'all-in-one' flashing beacon system with significant problems. One of which, optical output from the system's beacons, has been documented by STC in a comparison video ([www.solar-traffic-controls.com/video.html](http://www.solar-traffic-controls.com/video.html)) at the invitation of the town's traffic crew.



In lieu of adequate support from the manufacturer, STC stepped in to help improve the situation. Working with the town's traffic signal technician and Scouten Engineering, the town's contract traffic engineering firm, a solar Ped-X system was proposed at the crossing using STC 12-inch amber, DC LED lamps.

Since the crosswalk is adjacent to a T-intersection the engineer in charge of the project at Scouten was concerned that drivers turning left from the side street would not be able to see the crosswalk flasher in time. Therefore, a flashing LED NO LEFT turn signal was also included facing the side street. Whenever the flashing beacons are active, the NO LEFT sign flashes to warn motorists not to attempt the turn.

The new system is based on the STC Solar Ped-X product line ([http://www.solar-traffic-controls.com/pdf\\_datasheets/Wireless\\_PedX.pdf](http://www.solar-traffic-controls.com/pdf_datasheets/Wireless_PedX.pdf)) of 'wireless' crosswalk systems. The system uses a Frequency Hopping Spread Spectrum radio to communicate between poles and is configured as a master/slave system so the two units must be operational for either unit to respond to pedestrian input. The previous units would allow a single beacon assembly to flash even if the other unit was not fully operational as is typical in a peer-peer network configuration.

Each pole in the system uses a 15-foot spun aluminum pole assembly with breakaway base to mount all the equipment. The indications are 12-inch amber DC LED lamps from STC; made in USA; with a typical max bright output of >950 Cd on center. The controls include a logic module with a project specific software package.



continued on next page

Since the operation of the old equipment was sketchy at best, children using the new equipment were happy to see the cars stopping when they pressed the button to cross. There was a very positive response to the Polara Bulldog button's visual and audible response when pushed by users. New signs for the installations were not ready the day of the installation so the town opted to temporarily reuse the existing signs pending receipt of the new diamond grade FYG W11-2 signs and the W167P arrow signs in the same sheeting.

The LED NO LEFT sign was manufactured for the project by Wells Sign Manufacturing. Installation was by Trafficade Services and the Town of Buckeye with STC supervision on site. Traffic engineering for the project was performed by Scouten Engineering.

### **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 be drawing power.

**Go to "Send us your requirements" at [www.SolarTrafficControls.com/support/requirements.php](http://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](mailto:info@solar-traffic-controls.com) • [www.solar-traffic-controls.com](http://www.solar-traffic-controls.com)