



“Wireless” Traffic Control Solutions

APPLICATION: *High Water Flashing Beacons with Text Messaging*

LOCATION: Tucson, AZ, U.S.A.

Description

Rain is infrequent in the Southwest yet when it does rain, it floods washes and streets. Many state agencies throughout the Southwest abide by this fact and limit the number of bridges built across washes in their jurisdictions.

There are many locations where arterial roads cross washes which often flood. Flooding typically takes place during short rainy periods in the winter but especially in the summer during the monsoon season. Flooded washes are barricaded to restrict traffic from entering the area.

In many cases, agencies install warning flashers in advance of the wash and activate them as needed to warn motorists of flooded conditions. Such has been the case with Tucson, Arizona.

Many years ago Tucson installed solar-powered warning beacons at some of their key unbridged wash crossings. The city has four crossings set up with advance flashing beacons for a total of eight beacons. The initial systems used a local radio receiver at each beacon station. When upstream conditions indicated flood level run-off was coming down the wash, city personnel were deployed with a handheld transmitter to activate the beacons from one side of the wash while they put up barricades and tape to block drivers.

Eventually STC was able to outfit the city with a pager active system which allowed the city to use their cell phones as the 'remote' to activate the systems. This worked for a few years until pager service became obsolete.

Last year STC demonstrated a two-way text messaging card option to the city. Again, the users' cell phone acted as the remote as long as they knew the number to call and the pass code to append to have the message accepted. The unit was able to send back a confirmation message to the user that the message had been received and acted upon.



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STC took the base unit one step further and added a Low Battery alarm function and an open door alarm function as well. After some issues with RF equipment and carrier selection, the city was able to finally deploy the equipment and proclaim it operational this spring. Whenever the door is opened at the unit or if the flashing beacon hits the Low Battery threshold voltage, the unit will text out to the primary user an alarm text message.

Monthly cost is only a few dollars per unit and includes up to 30 messages per month (sent/received total). The unit includes RF cabling and a penta-band cellular antenna kit.

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 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.

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