CITY OF CONWAY
CITY OF CONWAY STREET DEPARTMENT

Bid Number: 2011-14

Bid Opening Date: March 29 Time: 10:00AM

BID OPENING LOCATION:	**MAIL TO:**	**DELIVER TO:**
City of Conway Mayor's Office	City of Conway Mayor's Office	City of Conway Mayor's Office
1201 Oak Street	1201 Oak Street	1201 Oak Street
Conway, AR 72032	Conway, AR 72032	Conway, AR 72032

BID INVITATION

Sealed bids for furnishing the commodities and/or services described below, subject to the Conditions on the reverse hereof and as may be attached hereto will be received at the above-noted mail and delivery locations until the above-noted bid opening date and time, and then publicly opened at the above-noted bid opening location. **Bids must be submitted on this form, with attachments when appropriate, or bids will be rejected. Late bids and unsigned bids will not be considered.**

In compliance with this Bid Invitation and subject to all the Conditions thereof, the undersigned offers and agrees to furnish any and all items upon which prices are quoted, at the price set opposite each item.

Company Name: _____
Address: _____
_____
City:_____ State:_____ Zip:_____

Name (Type or Print):_____
Title:_____
Phone: _____Fax:_____
E-mail Address:_____

Federal Tax ID or Social Security No.:_____

Signature:_____
Signature must be original (not photocopied) and in ink.

Unsigned bids will be rejected.

Item No.	Description School zone time switch conversion from one way pager to Ethernet based two way	Quantity	Unit	Unit Price	Amount
1	Master radios.	9			
2	Time clocks two units to be solar powered	25			
3	Radio to time switch conversion as necessary				
4	Omni antennas for masters	9			
5	Yagi antennas for time clocks	25			
6	Software and software keys to be provided without a reoccurring contract or maintenance fee.				
7	On site installation support to be provided	1			
8	Three year warranty for time clocks and master radios				
			TOTAL BID		

The successful bidder will be required to complete delivery within 45 days after award.
All freight, tax and fees shall be included in the bid price
Bid prices are FOB Conway Street Department, 100 East Robins Street, Conway, Arkansas

Any additional information and clarifications may be obtained by contacting
Mr. Alan Alvey, Traffic Systems Manager
Street Department
City of Conway
100 East Robins
Conway Arkansas 72032
Or by calling 501-450-6165

Unsigned bids will not be considered

City of Conway Terms & Condition

By Submission of bid, bidder certifies that he has read all terms and conditions and that bid is submitted in accordance therewith.

1. Prices quoted will be considered to be net prices unless otherwise stated by the bidder. Cash discounts requiring payments in less than 30 days will not be considered in making awards.
2. Prices quoted shall be FOB Conway unless otherwise specifically stated on proposal. In either case, delivery charges must be prepaid.
3. All charges including taxes, shipping, freight, and any miscellaneous taxes shall be included in prices quoted, if applicable.
4. Bidder certifies that he will make delivery of items for which he bids within 10 days after receipt of award – ***unless otherwise specifically stated***. Time of delivery in excess of 10 days may be considered a factor in making awards.
5. In case of default of contractor in making deliveries as per contract, the City may procure the articles or services from other sources and hold the contractor responsible for all excess costs occasioned thereby. Bidder's record as to satisfactory performance under previous contracts will be considered a factor in making awards and retention on bid lists.
6. The City reserves the right to reject any or all bids, in part or in whole and to waive information in bids received.
7. If not otherwise specified, bidder must furnish brand names with catalog number, if any, on items which are offered as "equal." In all such cases the burden of establishing equality is upon the bidder and failure to do so within a reasonable time may result in rejection. Alternative bids will not be considered unless no other type bid for the item is received.
8. In the case of equal or tie bids, preference will be given to Arkansas bidders. Other than as stated in the first sentence, awards on tie bids will be made at the discretion of the purchasing official. In such cases, "splitting" will be avoided and awards of previous contract(s) to one or more of the bidders will not be a factor.
9. In the event that bidder is unable to furnish all of an item, bids on portions thereof may be considered.
10. Final inspections and acceptance or rejection will be made after delivery. Items rejected because of non-conformance shall be removed and replaced immediately with those which meet specifications, all at the expense of the contractor. In the event that necessity requires the use of non-conforming items, payment therefore will be made at a proper reduction in price which shall be not greater than contractor's actual cost by purchase, fabrication, manufacture or other production method plus transportation paid to carriers. All costs in connection with testing items that do not meet specifications shall be paid by contractor.
11. Quality, time of performance, probability of performance, and location of bidder will be factors in awards of all contracts.
12. The City reserves the right to purchase any, all or none of the items listed, in combinations thereof that may be in the best interest of the City of Conway.
13. The City reserves the right to change any specifications, terms and/or conditions at any time, with adequate notice in writing to bid invitees of those changes, if any.
14. The City is qualified for "GSA" pricing schedules***, if available and applicable***.
15. The City reserves the right to waive any informalities or minor defects, but this shall not be construed to indicate waiver of any specification, term and/or condition unless in the best interest of the City in the judgment of the City.
16. **CONSTRUCTION/INSTALLATION:** Any construction work that is worth $20,000 or more must comply with Arkansas Code Annotated § 22-9-204.
17. **Arkansas Prevailing Wage Law A.C.A. §22-9-301 through 3-15:** The City of Conway, general contractors or any subcontractors is subject to the Arkansas Prevailing Wage Law, A.C.A. **§22-9-301 through 3-15.** The Labor Standards Division enforces laws related to prevailing wage (PDF). Arkansas's prevailing wage law is commonly referred to as the "little Davis-Bacon Act." The law requires the division to issue a wage determination for each public works project where the cost of all labor and materials exceeds $75,000. *Exemptions are public school construction; work done for or by any drainage, improvement, or levee district; highway, road, street or bridge construction and maintenance, or related work contracted for or performed by incorporated towns, cities, counties, or the Arkansas Highway Department.* If you need a copy of the Prevailing wage Regulation and Laws that are required; this information is available at http://www.arkansas.gov/labor/pdf/prevailing_wage_regs.pdf.
18. **PROHIBITED INTEREST CONDITION:** No official of the City authorized on behalf of the City to specify, plan, design, negotiate, make, accept or approve, or take part in specifying, planning, negotiating, making, accepting or approving any construction or material purchase contract or any subcontract in connection with any purchase made by the City of Conway shall become directly or indirectly interested personally in the purchase in the purchase or any part thereof.
19. **EQUAL OPPORTUNITY IN EMPLOYMENT:** All qualified bidders will receive consideration without regard to race, color, religion, sex, age, disability or national origin.

City of Conway

Hardware Specification

Programmable Time Switch Conversion
Two-Way Radio/WiFi/Ethernet (IP) or GPS Capability

This specification sets the minimum acceptable requirements, materials, and workmanship for converting existing Model CPR2102 pager programmable time switches currently owned by the City of Conway from a weekly program to an annual program. The conversion shall also include converting from using a one-way alphanumeric pager receiver to using any specific method listed or a combination of :

- a two-way 900MHz spread spectrum radio network
- a city wide or local WiFi network
- an Ethernet (IP) network

The communication methods are hereby referred to as the "Two-Way Network" in this specification. The time switch conversion shall also include the capability of automatically resetting time switch time-of-day from a GPS receiver in the absence of two-way communications. The time switch conversion shall also include program upload and download capability from a laptop computer or netbook using a serial cable. All time switch conversions shall include any internal component upgrades necessary to enable the time switch to support power for an external data communications device and data communications or a GPS receiver though the single DB-9 com port on the front of the unit.

Two-Way Network Programmable Time Switch

The time switch unit shall have a Two-Way Network transceiver that is able to receive programs and commands generated by a central computer and transmit its programming data back to the central computer upon demand.

The Two-Way Network shall work as a wireless serial connection for the time switch. When the Two-Way Network receives a message it will pass the message to the time switch for decoding. All addressing, timing and on/off command decisions shall be made by the time switch and not by the Two-Way Network.

The time switch shall be capable of receiving and running the following programs via the Two-Way Network:

Override Plan – an override plan is a one-day program with up to 16 program steps for controlling the output relay of the time switch. An override plan runs instead of the normal program until the override plan expires. The time switch shall immediately start running the override plan when it is received over the Two-Way Network. The time switch shall revert back to its regular schedule at midnight of the same day or if a command is downloaded that cancels the override plan.

Time Set – the day-of-week, hour and minute of the time switch shall be set and reset over the Two-Way Network. When a time set command is received, the time switch shall immediate adjust its internal clock accordingly.

Setup Time Switch – the time switch shall accept Two-Way Network transmissions that will download all of the operating parameters to include day-of-week and time-of-day, day plans, default week plan and annual plan programming.

Day Plan Programming

Each time switch shall have ten (10) day plans. One of the Day Plans shall be used for holidays throughout the school year. The other nine Day Plans shall be capable of running 16 program steps per plan. Each day plan program step shall include the following:

Time of day in:	Hours, Minutes, AM or PM
ON / OFF Commands:	ON OFF

One day plan shall be reserved for programming a normal school day and the other 8 day plans are programmed for any school flasher schedule other than the normal school day such as an early out, Friday night football, summer school, etc.

Default Week Plan – the default week plan is a seven-day program that assigns one of the Day Plans to each day of the week. The basic default week plan has Saturday and Sunday running a day plan that keeps the beacons from flashing while Monday through Friday are programmed to run day plan 1 which is the normal school day plan. The operator shall have the ability to program any of the day plans to any day of the week.

Annual Plan Programming

The time switch shall be capable of executing thirty-six (36) separate Annual Plans. The Annual Plan programming shall use the exception day method where the time switch automatically runs its Default Week Plan until an Annual Plan program instructs it to run a different day plan.

Programming the Annual Plans shall be accomplished from the central computer. Each Annual Plan shall be programmed by entering a Day Plan number and the beginning date (month/date/year) and the ending date for which the time switch is to run that Day Plan. The time switch shall be capable of running a Day Plan as short as one (1) day or as long as six (6) months. It shall be possible to begin an Annual Plan in one calendar year and end that same Annual Plan in the next consecutive year.

It shall not be necessary to enter the Annual Plans in chronological order.

Enclosure

The time switch shall be housed in an aluminum or stainless steel enclosure with a means for mounting to a suitable back plane. Mounting holes that provide clearance for at least a #10 screw is required. The mounting hole pattern of the enclosure shall be the same as existing time switches used by the agency to facilitate easy installation.

The time switch shall not exceed 3.7”w x 7.5”h x 1.55”d. Interface to the power line and/or to the flasher cabinet shall be provided by means of a terminal block capable of terminating wires sizes up to #14 AWG. The AC power inputs, if any, shall be protected with a fuse and MOV, DC power with a fuse only. A separate terminal point shall be provided for each pole of the relay, AC line, AC neutral, Ground, +12VDC and -12V Common.

Electrical

The time switch shall be capable of operating on either 12VDC +/-2VDC or an AC power source between 95 and 135VAC.

The AC & DC power supply must be an integral part of the time switch circuit board due to the fact that many flasher cabinets do not have AC power outlets.

A separate power supply module, similar to those used for calculators and battery chargers, is not acceptable.

Power Back-up System

A means shall be provided to maintain timekeeping and all programming when the line power source (120VAC or 12VDC) is lost. This back-up system shall maintain timekeeping and all programming for not less than 60 days at 25C when fully charged, and shall go on line automatically upon failure of the power source. Upon resumption of power source, the unit shall automatically resume normal operation with the relay output either energized or de-energized based on the last program being run.

When the time switch is operating on the back-up system, the indicators and relay output shall be off to conserve back-up power.

Manual Operation

The time switch shall be equipped with a push button switch that will allow a technician to manually activate and/or deactivate the relay output. The relay shall remain in the manual condition until the next program step.

Indicators

The time switch shall have a minimum of four (4) LED indicators to display the following:

- When the time switch has power applied and is operating
- When the time switch is in the process of receiving a Two-Way Network signal
- When the time switch has failed to receive a Two-Way Network signal after midnight Saturday
- When the time switch is receiving signals from a GPS receiver
- When the time switch is receiving from a GPS receiver that is locked onto at least 3 satellites
- When the output relay is energized or de-energized
- When a setting error has been made using switch addressing
- The group and location number set using the DIP switches
- The program that the time switch is running

Time Switch Addressing

The group and location address in each time switch shall be programmable by DIP switches mounted on the printed circuit board.

It shall be possible to program a unique address on each time switch board by setting two DIP switches. One DIP switch shall be used to set the group address (01-99) and another DIP switch shall be used to set the location address (01-99). This unique address will allow the operator at the computer to program any time switch individually or as part of a complete group. An LED indicator shall continuously display the group and location number once the DIP address has been set.

Group and/or individual addressing programmed in the Two-Way Network is not acceptable.

Program Search Back

When the time switch is downloaded with a new program, day-of-week and/or time-of-day, it shall initiate a search back routine to determine if the relay output should be on or off at the time the download is complete.

GPS Receiver (option)

The time switch shall have the option of receiving Global Positioning Satellites (GPS) signals from a receiver designed for this function. The GPS receiver shall reset the time-of-day in the time switch continuously when locked onto at least 3 satellites and shall automatically adjust for time zones and daylight savings time.

The GPS receiver shall not exceed 1.2”h x 3.5”w when mounted on the top or side of a flasher cabinet. The GPS receiver shall connect to the time switch inside the flasher cabinet using a 48” wiring harness.

The GPS Receiver shall be purchased separately from the time switch.

Output Relay

The time switch shall have a SPDT relay output rated at 15 amps resistive at 120VAC.

Program Upload and Download

Each time switch shall be supplied with a DB9 connector mounted on the front of the time switch. This connector shall be used to upload and download time switch programming over the Two-Way Network or from a laptop or netbook computer.

Connector

Each time switch shall be equipped with a circular CPC type connector. This connector shall be identical in style and pin assignment to the connector currently in use by the agency. This requirement will facilitate the direct replacement of time switches currently in use by the agency with the Two-Way Network programmable time switch. It shall be the responsibility of each bidder to determine the connector style and pin assignment necessary to meet this requirement.

CRC Error Checking

To eliminate the possibility of receiving a corrupted Two-Way Network message, the time switch firmware shall include an algorithm that generates a “Cyclic Redundancy Check” (CRC) error-checking character set for each Two-Way Network message received. If the time switch CRC character set does not match the CRC character set received over the Two-Way Network, the time switch shall ignore the message and continue running its program. The bidder will be required to demonstrate the CRC error checking capability to the agency as specified in the Test and Acceptance section of this specification. The Check Sum method of error checking shall not be accepted.

Warranty

All time switches that have been converted to Two-Way Network capable shall be warranted to be free from defects in material and workmanship for a period of three years from the date of conversion. Any warranty service required shall be promptly performed at the manufacturer’s facility or the manufacturer’s authorized service agency. The City of Conway will pay transportation costs to such service point, and the manufacturer will pay those costs to return the unit by normal surface transportation means.

Service information shall be available to the City of Conway consisting of at least schematics, parts locators and parts lists.

Test and Acceptance

At the request of the City, the apparent low bidder shall be required to supply a complete working system to the agency for testing and evaluation. This working system shall include a computer preloaded with the software, a Two-Way Network for the computer, six-field time switch units, a

laptop computer and any other equipment or supplies necessary for the agency to adequately test and evaluate the system.

The bidder shall setup the computer and the six field time switch units at a location identified by the City of Conway. The bidder will successfully demonstrate the CRC error-checking feature to the City of Conway personnel by simulating a time switch receiving a normal message and a corrupted message. The bidder will train City of Conway personnel on how to program and operate the Two-Way Network programmable time switch system. The test and evaluation will take up to 60 days at which time the equipment may be picked up by the bidder or shipped to the bidder freight collect.

Upon telephone or written notification, the bidder must deliver this equipment to the agency within 14 calendar days. Failure to comply with the above requirement will render the bid non-responsive.