

RESOLUTION 16-154

A RESOLUTION TO AUTHORIZE THE PURCHASE OF TWO (2) TRAILER MESSAGE BOARDS

WHEREAS, the Spring Hill Police and Public Works Departments were allocated \$30,000.00 for Message Boards in the 2016-2017 fiscal budget; and

WHEREAS, each Department is in need of trailer message boards to deliver public safety messaging on city roads; and

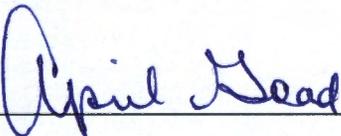
WHEREAS, if awarded, the TML safety grant for \$4,000.00 will be used toward the purchase cost of the trailer; and

WHEREAS, City staff has reviewed prior proposals and has made a recommendation to the Budget Finance Advisory Committee.

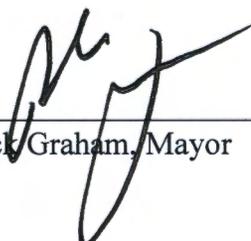
NOW, THEREFORE BE IT RESOLVED, that the City of Spring Hill authorizes the purchase of two (2) trailer message Boards from K&K Systems, Inc. from the TDOT State Wide Contract 219 for a total of \$26,450.66, as recommended by the Budget and Finance Advisory Committee on November 7, 2016.

Passed and adopted by the Board of Mayor and Aldermen of the City of Spring Hill, Tennessee on the 21st day of November 2016.

ATTEST:

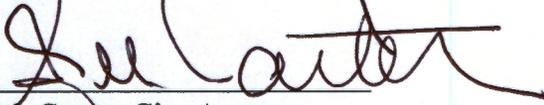


April Goad, City Recorder



Rick Graham, Mayor

LEGAL FORM APPROVED:



Patrick Carter, City Attorney



**City of Spring Hill
Budget and Finance Committee
Purchase Evaluation Form**

*Department: Police, Public Works
Presented By: Don Brite, Chief of Police
Date: November 7th, 2016
Department Budget Status:*

- I. Purpose/Overview of Purchase:** To Purchase two trailer message boards for police and public works to be used on city roads to display messages/warnings to the public during road construction, special events and any other situation warranted.
- II. Background Information:** Message boards were budgeted for each department at \$15,000.00 each. (2016-2017) Boards are not only for messaging, but for safety also, by warning the public about roadway conditions, hazards, or give directions. TDOT purchases these boards off state contract from K&K systems. The boards will be shared or used by each department when needed. The boards display 3 lines of text and also can display graphics. Graphics allow for directional arrows and MUTCD symbols which can be beneficial during messaging.
- III. Financial Impact to Budget:** Total amount budgeted: (\$30,000.00)
Total cost for both: (\$26,450.66)
Less TML safety grant: (-\$4000.00)
Total cost after grant, if awarded:(\$22,450.66)
- IV. Alternative Options:** RFP
- V. Staff Recommendations:** Recommend to purchase two trailer message boards off of state contract from K&K systems for a total cost of \$26,450.66. (if we receive the TML safety grant for \$4,000.00, total cost will be \$22,450.66)



Tel: 888-414-3003
Web: www.k-systems.com
Fax: 662-566-7123
Email: Sales@k-systems.com

Changeable Message Display Trailer Mounted

"GET THE MESSAGE ACROSS"

MODEL MB14281

FEATURES

- Graphic Capability
- Quick Message Selection
- Removable Tongue
- Lockable Cabinets
- Password Protection
- Powder Coat Paint
- Tongue Jack (with wheel)
- 1/8" Lexan Face
- NTCIP Controller
- Independent Module Operation
- Photocell for Auto dimming
- RF Immunity

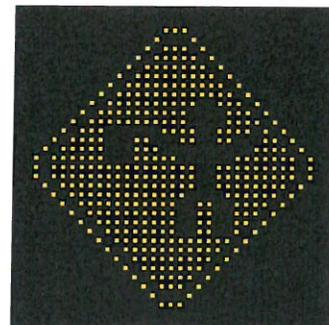


Quick Selection Switch



With K&K Systems' **Quick Message Selection Switch** you are able to switch between the first 16 user defined messages that you have created. This will allow for field workers to have no experience in programming - just turn the thumbwheel to desired message number.

GRAPHIC CAPABILITY



- MUTCD Symbols
- Arrow Board Patterns

General Specifications for Model MB14281

Solar Powered, Portable Changeable Message Sign. Capable of three lines of alphanumeric 18" high text and graphics/animations, all LED display, self contained on board computer, multiple alphanumeric fonts, powder coat paint system. Display is 142" x 81", with hydraulic style trailer. Supports up to 260 predefined messages (text and graphics). Supports storage of up to 100 changeable messages. System comes standard with eight-(8) 6-volt batteries (totaling 900 12V amps) and 220 watts of solar. NTCIP Compliant.

Trailer

Width: 79"
Length with tongue: 172"
Length without tongue: 120"
Transport Height: 112.5"
Operating Height: 167"
Salt Spray: 1,000 hours
Paint: Powder Coat
Main frame: 2"x5"x1/8"
Front/Rear Cross members: 2"x3"x1/8"
Wheels: 5 lug-P205/75R15
Axle: Straight tubular steel 3500 pounds
Fenders: 16 gauge steel
Jacks: Adjustable 15" jacks (2000 lbs. capacity) on each corner of the trailer. Tongue jack.
Hitch: 2" hitch, 1/4" safety chains with hooks

Display Modules

Pixel Matrix: 27x48 Pixel Arrangement
LED Module: Each is 6x9 matrix
LED's Per Pixel: 4
LED Type: Agilent amber 592NM
Viewing Angle: 30 degrees
Visibility: 4800 feet
Hours: 100,000 hour LED
Lines: Displays 3 lines of text and also displays **Graphics**
Characters per line: 8 (12 characters optional)
Character Height: 18"
***If one module fails the remainder of board is unaffected.**

Options

Locking lug nuts
Cell Modem
Radar
Pintle ring or bulldog hitch
Electric or hydraulic brakes
Custom Paint
Other Options available

Display Enclosure

Construction: Extruded Aluminum 6063 alloy with a T5 temper.
Length: 142" **Width:** 81" **Depth:** 6"
Paint: Powder coat paint, flat black finish
Salt Spray: 1000 hours
UV Resistant: 500 hours
Seal: Weather resistant
Venting: Vented top and bottom
Front face: .125 thick polycarbonate with UV matt finish
Raising and lowering of display: Electro-hydraulic
Secondary raise and lowering: Manual hand pump
Mounting Studs: constructed of .080 aluminum
Back skin: constructed of .080 aluminum

Power and Charging

Batteries: (6) 6 volt batteries, combined 675 amps
Battery Charger: 110 Volt, 1000 watt, 60amp
Recharge: 24 hours
Onboard diagnostics to monitor: Solar, battery, and load
Solar: (2) 110 watt Solar panels
Regulator: 30 amp regulator with low voltage & high voltage disconnect.

Controller

Preprogrammed Messages: 260 also includes arrow and MUTCD symbols
User programmable: 100
Message Timing: Slow, medium, fast
Dimming: Auto or Manual
Protection: Password
Quick Message Selection: Thumbwheel to quickly select between 16 user programmable messages.
Controller Display: LCD
Data Entry: Mini Keyboard
Memory: Non volatile
***Pre-wired to accommodate radar, cell modem, and PC**
****"Auto Resume" after power failure**

687 Palmetto Road
 Tupelo, MS 38801
www.k-systems.com

email: cphillips@k-systems.com
 Phone: Office 662-566-2025, Cell: 662-542-3182
 Fax: 662-566-7123 TollFree: 888-414-3003

Quotation #: Q161012CP-2
 Quotation Date: 10/12/2016
 Customer Type: Your Cost

Customer Contact: Admin. Sgt. Charlie Spires
 Quote Valid: 45 days
 Prepared by: **Chip Phillips**

<u>Bill To:</u>	<u>Ship To:</u> (Update if different than Bill To address)
Name: Admin. Sgt. Charlie Spires	Name: Admin. Sgt. Charlie Spires
Company Name: Springhill Police Department	Company Name: Springhill Police Department
Street Address: 3636 A Royal Park Blvd.	Street Address: 3636 A Royal Park Blvd.
Address 2:	Address 2:
City, ST ZIP Code Springhill, TN 37174	City, ST ZIP Code Springhill, TN 37174
Tel:	Tel:
Cell: 931-384-0687	Cell: 931-384-0687
Fax:	Fax:
email: cspires@springhilltn.gov	email: cspires@springhilltn.gov

Product

<u>Model #</u>	<u>Description</u>	<u>Base Price</u>
MB14281	Solar Powered, Portable Changeable Message Sign. Capable of three lines of alphanumeric 18" high text and graphics/animations, all LED display, self contained on board computer, multiple alphanumeric fonts, powder coat paint system. Display is 142" x 81", with hydraulic style trailer. Supports up to 260 predefined messages (text and graphics). Supports storage of up to 100 changeable messages. System comes standard with six (6) 6-volt batteries (totaling 675 12V amps) and 220 watts of solar. NTCIP Compliant.	\$13,225.33

Packaging

K&K Delivers

Options and Accessories - PER UNIT

<u>QTY per Unit</u>	<u>Item #</u>	<u>Description</u>	<u>Price Each</u>	<u>Price per Unit</u>
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2-3 UNITS CONTRACT DISCOUNT PRICE

Special Notes

TDOT Contract SWC 219.

Terms of Purchase

FOB: Tupelo, MS 38801
 Delivery (weeks): 4-6 Weeks
 Warranty: 1 year limited warranty, Factory Depot

Per System Total:	\$13,225.33
Total QTY of Systems: 2	\$26,450.66
Total Shipping Costs:	Included
Taxes:	
GRAND TOTAL:	\$26,450.66

Sales Person Signature: Chip Phillips

Work Order# ENTER WO #

Sales Manager Signature: Timothy Keith

Client PO# ENTER PO #

Please note: The above specifications and quotation does not include shipping, permits, or taxes unless otherwise stated. The freight charge is an approximate estimate for your reference; the actual charge may vary. There will be an additional 3% charge on all credit card orders unless otherwise stated *Lead-time committed is based on the date Purchase Order is received by K&K Systems and deposit made and/or credit approved. Lead time is not based on the date quoted.

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- [Products](#)
- [Used Units](#)
- [Rental Units](#)

• **Products:**

- Solar Flashing Beacons
- ECO Solar Flasher Beacons
- Sign Alert Systems
- Rectangular Rapid Flash Beacons
- Radar Speed Monitors
- Arrow Boards
- Changeable Message Displays
- Mini Messenger
- Specialty Lights
- System Components
- Rental and Used Units

MB14281

Hydraulic Trailer Mounted Message Boards

[Overview](#)

[General Specifications](#)

[Options](#)

[FAQ's](#)

[Videos](#)

[Brochure](#)

[Manuals & Specs](#)

Question: How do you prevent the unit from being stolen?

Answer: We have three safety features that prohibit theft of the units: 1) The tongue is able to be taken out of trailer once setup into place, 2) The tongue can be left in and a padlock can be placed into the hitch receiver, or 3) You can get the optional wheel locks that keep unit from being transported.

Question: How hard are they to program?

Answer: Our Portable Message Signs are very easy to program. Please see our instructions for programming under "support documents" for each model.

Question: How long will they run?

Answer: This depends on how the systems will be run & how much sun they will receive each day. Our Systems should run year round 24/7 in most cases and the battery bank should let the unit run for about 21-30 days without solar.

Question: What can you display on the message signs?

Answer: You will be able to display any text you would like to put on them and also put graphics and arrow symbols on our full matrix models. They come with at least 215 preprogrammed messages when you receive your unit.

Question: How many characters will fit on them?

Answer: Our standard system will display three lines of eight characters per line. Our full matrix message signs will display three lines of optional 10-12 characters per line, if needed.

Question: How many batteries do you use?

Answer: Please see specifications on each model under "support documents" on the website.

Question: How much sun do I need to run this?

Answer: Our standard system should be just fine in most cases. When you get into your more northern states then you may require additional solar and batteries, but it also depends on how long the system will be run.

Question: What size message board do I need in my state?

Answer: Every state is different on their needs but we basically have two models to choose from for state roadways. The full matrix (can display text and graphics) and the character matrix (displays text only). You will have to check with your State Department to find exactly which type you will need. All models will work perfectly for any county or city streets.

Question: What options are available for these?

Answer: There are tons of options for these message signs, but some of the most popular are: radar, cell modem, GPS, Central Software Management, and much more. Just go to our "options" tab for each model to see available options.

Question: Do you rent these or just sell them?

Answer: K&K currently just manufacturers them to sell. If we have older, refurbished units on hand, we will rent to our local market.

Question: How many messages will they hold?

Answer: Our systems come with 215-260 preprogrammed messages and 100 user changeable slots that you can place multiple messages in.

Question: If the batteries run down, how long will it take to recharge them?

Answer: If hooked up to the internal AC charger, this charging process should not take over 24 hours.

Question: What is the quick selection switch?

Answer: K&K Systems' quick message selection switch allows users to create their 16 most used messages. Selecting the correct message is easy; just turn the thumb wheel to desired number.

Question: Why do I need the solar to tilt and rotate?

Answer: The solar tilt and rotate is designed to allow user to gain as much energy as possible from the sun. This works well in those winter months where there is not a lot of sunlight. (not available for all models)

Question: Do they meet all highway regulations?

Answer: Yes, our changeable message signs meet highway regulations.

Question: Do you carry parts for these?

Answer: Yes, we are the manufacturer and have spare parts available.

Question: Is there a way I can recharge the batteries myself if I need to?

Answer: Yes, our systems come with an AC battery charger that has an external plug for you to plug your extension cord into. The plug is located on the side of the control cabinet in newer models.

Question: Why do I need it to show graphics?

Answer: Graphics come in handy when trying to display a message as simple as possible followed by text. An example of this is a graphic of an "arrow left" followed by text message "merge left".

Question: How high will the display rise up and why do I need it to rise?

Answer: The display will rise to 7 feet to bottom of display. The display needs to be raised so drivers can see behind the unit in case there are pedestrians on the other side and to meet MUTCD guidelines.

Question: How do I raise it up and down?

Answer: There is a toggle switch located inside the control cabinet to raise and lower the changeable message display. You must also release the break located on the center mast pole before raising display.

Question: Do the messages flash?

Answer: They can be programmed to flash.