



HISTORIC
FRANKLIN
TENNESSEE

Item #14
BOMA
01/28/2014

December 3, 2013

TO: Board of Mayor and Alderman

FROM: Eric S. Stuckey, City Administrator
David Parker, City Engineer/CIP Executive
Paul Holzen, P.E., Director of Engineering
Carl Baughman, P. E., Traffic/Transportation Engineer

SUBJECT: Jordan Road Traffic Calming Recommendation
Report for CIC meeting on December 12, 2013

Purpose

The purpose of this memorandum is to provide a recommendation to the Board of Mayor and Alderman for traffic calming installations on Jordan Road. This recommendation follows up on CIC reports given in September 2012 and October 2012 for various traffic calming options, and neighborhood meetings that have occurred since those reports. The issue was prompted by Jordan Road resident concerns and the Engineering Department finding that the speed profile fits a Speed Limit 40 pattern rather than the posted Speed Limit 30.

Background

In December 2012 an initial Jordan Road properties neighborhood meeting was held to introduce the traffic calming options and to establish an arrangement for the process going forward. Specific options for petition consideration were speed humps, all-way Stops (not recommended by Engineering) and/or driver feedback signs. In the meantime an additional Speed Limit 30 sign was installed southbound just off Liberty Pike and STRICTLY ENFORCED panels were added to the exterior speed limit signs to highlight the enhanced Police presence. There was concern that the petition area was too limited, and a broader Royal Oaks subdivision area meeting was held in July 2013 at which a consensus was reached to install the driver feedback signs. The petition area was refined to just those Jordan Road properties between Cambridge Drive and Sheffield Place, to seek consent from those residents for the illuminated signs.

Data

The response from the seven property owners in the Jordan Road petition zone was six giving consent for the driver feedback signs, and one without a response. On this basis these devices become eligible for consideration. The specific improvements are diagrammed in the petition zone map. The enclosed flyer describes the Driver Feedback Sign equipment and operation. The default message for this interactive illuminated sign will state SPEED LIMIT 30; as a vehicle approaches it will state YOUR SPEED XX (blanks out at a settable maximum value), and if the speed value exceeds the speed limit it will flash SLOW DOWN until the vehicle passes or comes into compliance. Typical speed reductions for these automated sign devices are in the range of 3-5 miles per hour. Additional foliage trimming is proposed to enable proper visibility of the Driver Feedback Signs. The existing northbound SPEED LIMIT 30 sign will be relocated to between Churchill Place and Cambridge Place, and be supplemented with the STRICTLY ENFORCED panel. The existing southbound SPEED LIMIT 30 sign will remain in place and also be supplemented with the STRICTLY ENFORCED panel.

Options

The available options are as follows:



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1. Install two driver feedback signs, one in each direction on Jordan Road, placed where downhill traffic will be reminded to slow down. These signs are currently in inventory at the City of Franklin Streets Department. The northbound Speed Limit 30 sign will be relocated to the top of the hill, and foliage overhanging the side of the road will be trimmed (see the petition map).
2. No action – considers that the driver feedback signs may be better applied at some other location, even though they have been in storage for approximately four years (their prior placement was on Lewisburg Avenue near the Fowlkes/Adams intersection).

Financial Impact

The estimated financial impacts are as follows:

Option 1 - The cost of the project will consist of the placement of concrete foundations for the sign supports, and the labor installation for mounting the signs and solar panels, all estimated at \$1,000, using the Streets Department annual contract for signal installations.

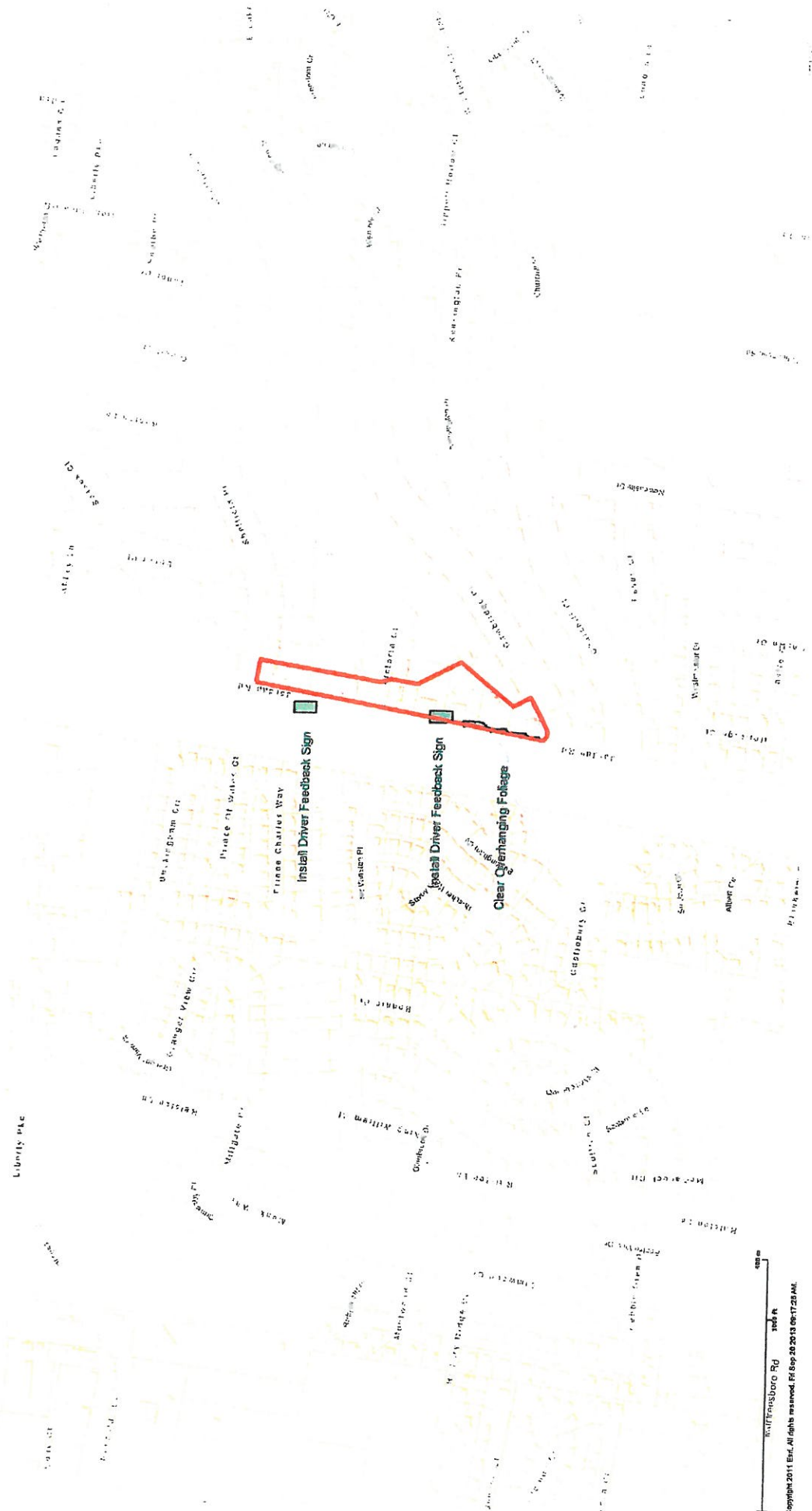
Option 2 - No cost.

Recommendation

Staff recommends Option 1 utilizing the Street Departments budget.

Jordan Road Petition Area

Traffic Calming Improvements



Scale: 1 inch = 300 feet
Map Date: 09/17/2013

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JORDAN ROAD TRAFFIC CALMING PETITION FORM

Name of neighborhood and requesting organization: Jordan Road property owners

Contact person: Carl Baughman, City Traffic Engineer Telephone No. 791-3218

Street(s) to be calmed: Jordan Road from Murfreesboro Road to Liberty Pike
_____ from _____ to _____

Request Statement: Install two (2) driver feedback signs on Jordan Road. The northbound sign would be placed at the location of the existing SPEED LIMIT 30 panel. The southbound sign would be placed midway between Sheffield Place and Victoria Court. Overhanging foliage would be trimmed near the locations of the Driver Feedback Signs. The existing SPEED LIMIT 30 signs would be supplemented with STRICTLY ENFORCED panels, and the existing northbound sign would be relocated to between Churchill Place and Cambridge Place.

SIGNATURES:

	Property Owner Name	Address	Telephone No.
1.	<u>Sharon K. Helminz</u>	<u>102 Sheffield Place</u>	<u>790-3850</u>
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____

NOTE: Only property owners are eligible to sign this petition.

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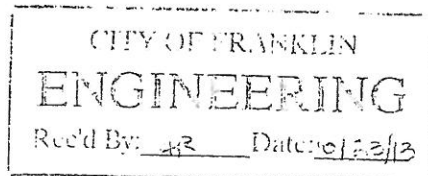
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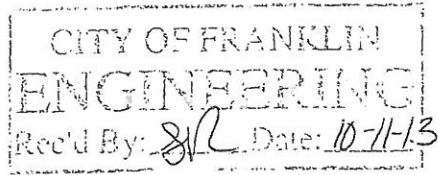
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SIGNATURES:

	Property Owner Name	Address	Telephone No.
1.	<u>Richard Murdoch</u>	<u>130 Jordan Rd.</u>	<u>615-794-0364</u>
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____

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SIGNATURES:

Property Owner Name	Address	Telephone No.
1. <u>[Signature]</u> DAN MEMMIS	<u>101 Victoria Ct.</u>	<u>794-0985</u>
2. <u>[Signature]</u>	<u>101 Victoria Ct.</u>	<u>794-0985</u>
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____
7. _____	_____	_____
8. _____	_____	_____
9. _____	_____	_____

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SIGNATURES:

	Property Owner Name	Address	Telephone No.
1.	<u>Jo Ann Wyatt</u>	<u>101 Cambridge Place</u>	<u>794-7869</u>
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____

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CITY OF FRAZEE
 ENGINEERING
 TRUCK SIGN SR DATE 10-24-13

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SIGNATURES:

Property Owner Name	Address	Telephone No.
1. <u>Robin A. Waugh</u>	<u>126 Jordan Road</u>	<u>615.477.9255</u>
2. <u>NICK D. WAUGH</u>	<u>126 JORDAN RD:</u>	<u>615-477-9255</u>
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____
7. _____	_____	_____
8. _____	_____	_____
9. _____	_____	_____

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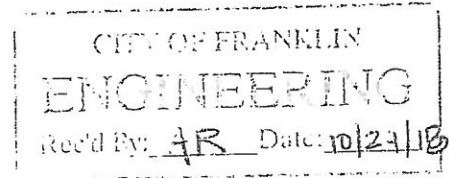
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SIGNATURES:

	Property Owner Name	Address	Telephone No.
1.	<u>James E Pitt</u>	<u>122 JORDAN RD</u>	<u>790-2773</u>
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____

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FOR TEL

VMS Traffic Calming Sign by Fortel Traffic, Inc.

Fortel Traffic's VCalm®VMS is a powerful traffic calming Variable Message Sign (VMS) with versatility that makes it perfect for a wide variety of applications. VCalm®VMS is a summation of the most important features and technology that meet the evolving needs of the traffic industry.

BRIGHTEST DISPLAY:

VCalm® utilizes high-volume high-intensity tightly clustered LEDs to maintain the highest visibility possible. This proven method of authoritative message presentation demands driver's attention making it the most effective traffic calming sign on the market.

LOWEST POWER CONSUMPTION:

VCalm® uses proprietary PWMST™ LED technology that consumes 50% less power than common LED devices. This provides exceptional autonomy for solar/battery installations.

STRONGEST CONSTRUCTION:

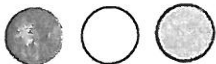
VCalm® maintains superior construction and durability with high quality components and no moving parts. The design meets the NEMA-3R specifications, and many of the VCalm® signs have withstood severe conditions, including hurricanes, fires, and extreme temperatures. VCalm® has consistently proven to be the longest lasting speed sign in the industry.

Heavy Duty (0.090) guage continuous formed aluminum enclosure

High-intensity Amber LEDs

3/8" polycarbonate lens

Three Available Colors



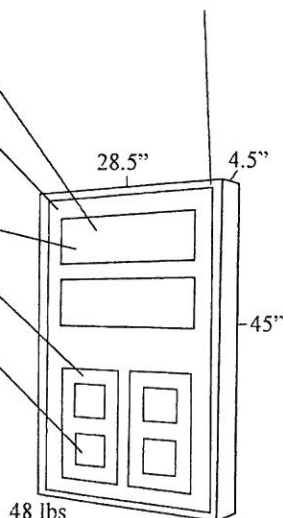
Characters: 4"(w) x 6"(h)

Numerals: 9"(w) x 16"(h)

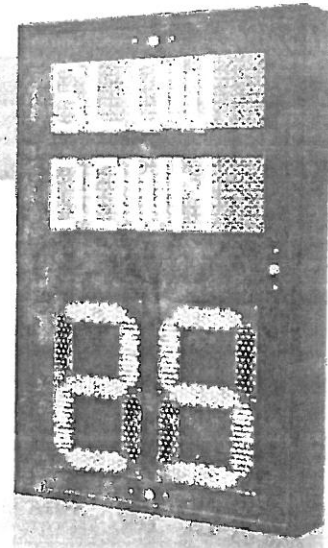
Radar: Low power part 15 certified

Optional:

- Wireless IP Modem
- Wireless WIFI
- Wireless Alert System
- Ground-level Access
- GPS Clock
- Solar Package
- Automatic Dimming
- Strobe, Flashers, and Sirens



VCalm®VMS



UNRIVALED VERSATILITY:

- Custom Messaging based on unique road conditions, activities, or events
- Multiple independently-scheduled vehicle speed thresholds can trigger any variation of messages and/or auxiliary devices: strobes, flashers, sirens, beacons, wireless alerts, etc.
- Instant Critical Messaging allows you to quickly display a high priority message from a remote location (requires IP modem).

SIMPLEST PROGRAMMING:

- SD Card provides practically limitless data storage space (40 years of data per gigabyte) and makes programming and data retrieval simple and affordable. (SDHC compatible)
- Modems, coupled with our automated online software, provide remote access to sign programming so changes can be made instantly.
- VSpeed™Online is the ultimate management software that gives the ability to program signs, simulate functionality, analyze data, and deploy configuration changes through remote access or SD cards.

EASY AND ACCURATE REPORTING:

- Traffic Data Acquisition System (TDAS) collects the fastest and slowest speed for each vehicle. The software uses this data to calculate the percentage of slowing vehicles and prove the device's effectiveness.
- Accurate raw data collected by VCalm® can be used to construct limitless report formats and parameters for thorough data analysis.

FOR TEL

Solar Package for VCalm®

VCalm® Solar Package by Fortel Traffic, Inc.

The VCalm® Solar Package makes the VCalm® unit completely autonomous. A Solar Package eliminates the need to assume the extra expense of an external power source, making this the most popular of the VCalm® options. In addition, VCalm® uses proprietary PWMST™ LED technology that consumes 50% less power than common LED technology. This ultra low power consumption enables the sign to run all day using only a single small solar panel.

Specifications (Standard Configuration):

- Batteries: (2) 79AH Batteries
- Weight: 53.6lbs
- Operating Temperature: -60C – 60C

Solar Panel: 85 Watt

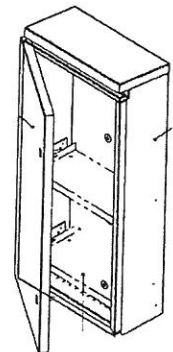
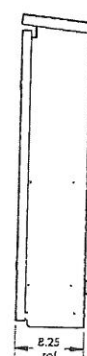
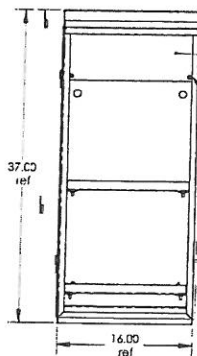
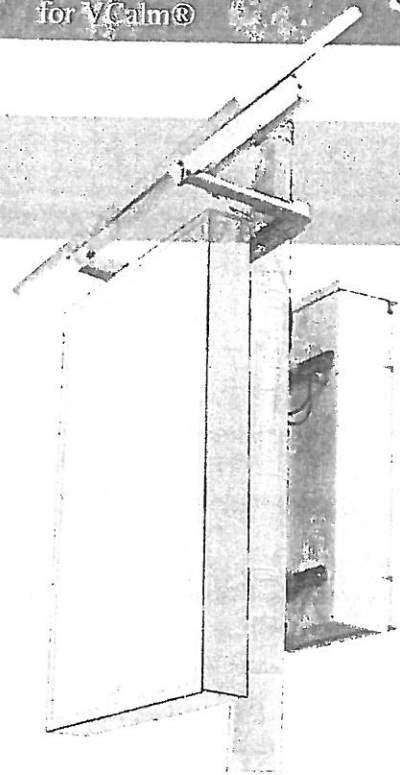
- Dimensions: 46.1" x 21.3"
- Weight: 17lbs
- Cells: 36
- Maximum Voltage: 17.5V
- Maximum Current: 4.9A
- Degradation: 10% (10 years) 20% (20 years)

Solar Controller

- Digital LCD Display
- Low power consumption (24mA)

Options:

- Batteries: (2) 105AH Batteries
- Solar Panel: 123 Watt
- Mounting options
 - Side of pole
 - Top of pole



FOR TEL

Optional Items for VCalms

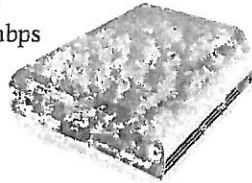
VCalms® Optional Equipment by Fortel Traffic, Inc.

The VCalms®'s optional equipment not only makes it the most versatile sign on the market, but also the most useful and effective. The following are popular options available for VCalms®.

WIRELESS IP MODEM

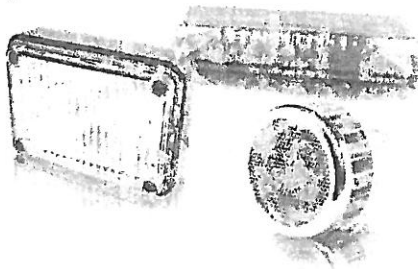
Automate data downloads and configuration changes wirelessly and eliminate the need to visit the sign physically using VSpeed™ Online

- Connection speeds up to 2.4mbps



STROBES, FLASHERS AND SIRENS

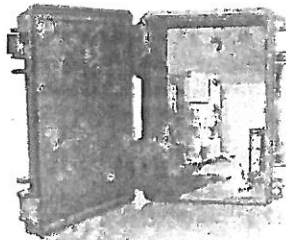
Force speed reduction by simulating law enforcement flashers, sirens, or photo radar.



GROUND-LEVEL ACCESS

Adding a Drop-down Box allows for easy access to sign programming without the use of ladders, buckets, or platform trucks.

- 10 ft. of armored, weatherproof flex conduit
- Corrosion-proof, weather-tight Pelican lock box
- SD Card technology for quick and easy data transfer



GPS

Automatically adjusts date and time settings using GPS tracking of sign position. Also allows coordinates to be accessed using IP modem



AUTOMATIC DIMMING

Optimizes the VCalms®'s display visibility by adjusting LED brightness according to ambient light conditions with the photo diode upgrade. Ambient light conditions are also logged to allow accurate diagnosis of solar outages.

WIRELESS ALERT SYSTEM

A wireless alert system is ideal for improving the safety of various situations and has up to a 2-mile range (depending on antennae used).

- Alert construction workers of unsafe drivers entering the construction zone.
- Give advanced warning to vehicles when pedestrians are crossing a nearby crosswalk
- Warn children of unsafe drivers in school zones

WIRELESS WIFI

Connect wirelessly to the sign using a laptop's wifi connection from up to 30 feet away.

- DHCP network data connection
- WPA security ready



FOR TEL

Ultimate Sign Management Software by Fortel Traffic, Inc.

Revolutionary sign management tool that allows the ability to program signs, simulate functionality, analyze data, and remotely deploy configuration changes with an easy to use interface.

FEATURES:

- **CENTRALIZED WEB PROGRAMMING:** Stay up-to-date with the latest configurations for each sign.
- **EASY SIGN MANAGEMENT:** Access all sign data and programming from a map of all your signs.
- **SIMPLIFIED PROGRAMMING:** Program your signs using an intuitive "drag and drop" style programming method that will help avoid programming mistakes.
- **SIMPLE DATA MANAGEMENT:** Keep all sign speed data in a single database allowing reports to be retrieved on demand within user-specified date ranges.
- **GRAPHS AND CALCULATIONS:** Percentile graphs and time of day graphs to allow fast discovery of times when law enforcement measures are necessary.
- **AUTOMATED DATA SUMMARIES:** 10mph incremental analysis lets you know what percentage of vehicles are slowing down at each 10mph increment.
- **CONFIGURATION SIMULATOR:** Simulate a program and demonstrate functionality to others before deployment.
- **AUTO DOWNLOADING:** The software will automatically connect and download data from all signs equipped with an IP modem so that your data and sign programming is always up-to-date.
- **INTUITIVE WARNINGS:** Maintains a running log of power failures, sign functions, and other important events to enable up-to-date reports of sign health and solar status.
- **INSTANT CRITICAL MESSAGING:** Instantly send critical messages to the sign to display warnings, emergencies, and other important information. (requires IP modem)

VSpeed™ Online

