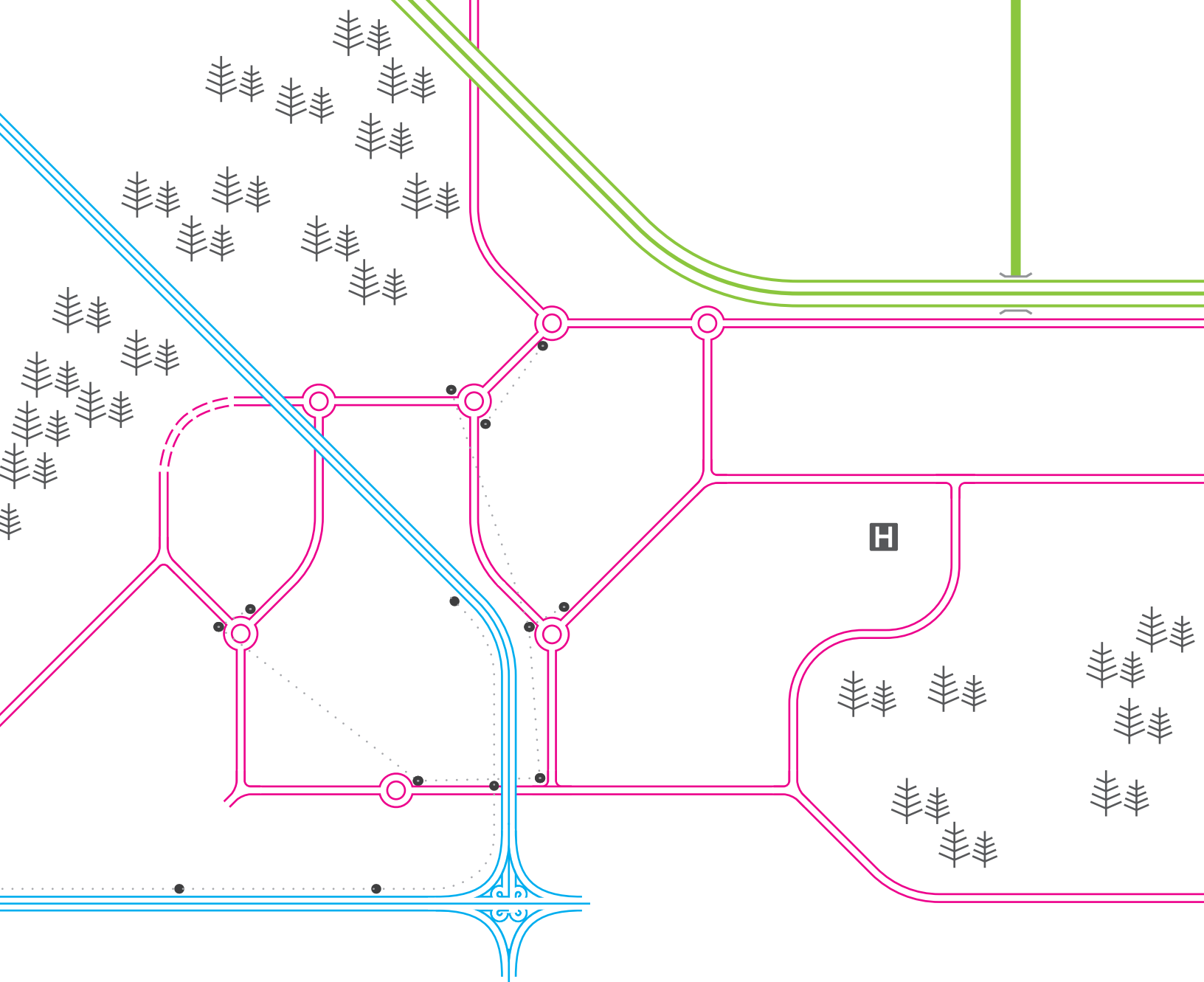# Wanco® ITS Solutions
Powered by QLynx Smart Work Zone Technology

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Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06

Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
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Красноярск (391)204-63-61
Курск (4712)77-13-04
Липецк (4742)52-20-81

Киргизия (996)312-96-26-47

Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
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Ростов-на-Дону (863)308-18-15
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Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13

Казахстан (772)734-952-31

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Тверь (4822)63-31-35
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Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93

http://wanco.nt-rt.ru || wca@nt-rt.ru

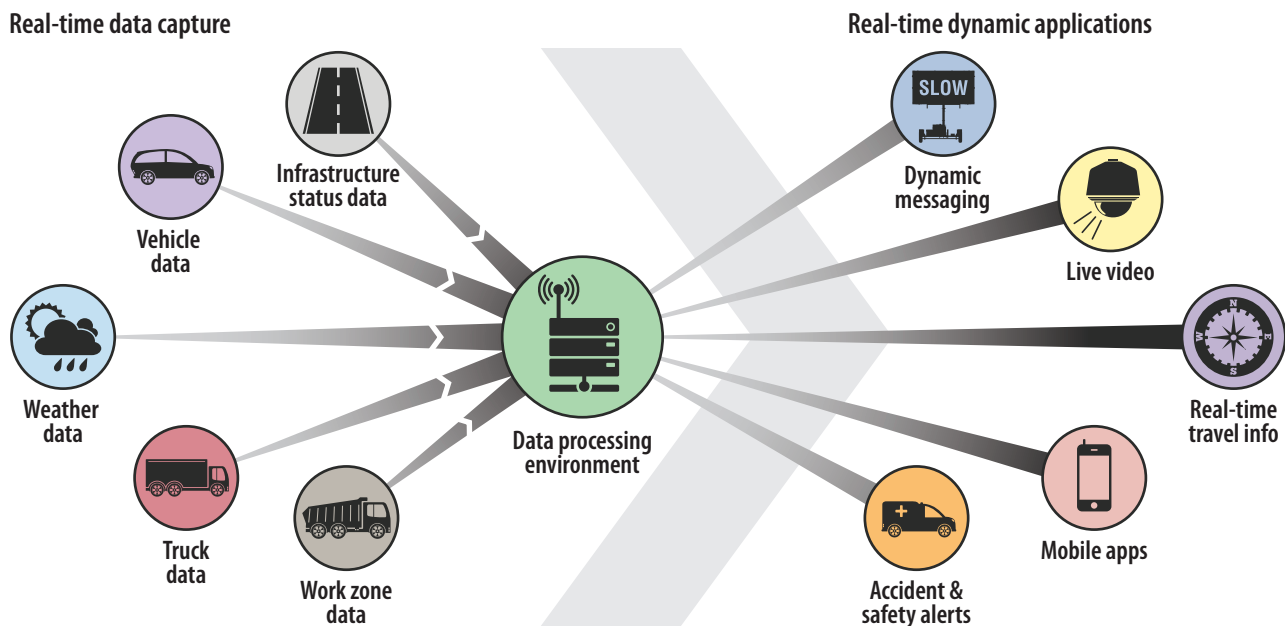# Integration for managing and operating transportation systems

What is ITS?

Technological advances in information processing and communications have created new opportunities for safer and more efficient transportation services. Intelligent Transportation Systems (ITS) provide a proven set of strategies for capitalizing on these opportunities.

What does ITS do?

ITS solutions provide a connected environment among equipment, infrastructure and motorists, receiving and sending real-time information about road conditions and potential hazards. ITS technologies advance mobility, transportation safety and environmental sustainability.

ITS data capture and management

Real-time data capture

Real-time dynamic applications

Vehicle data

Infrastructure status data

Weather data

Truck data

Work zone data

Data processing environment

SLOW

Dynamic messaging

Live video

Real-time travel info

Mobile apps

Accident & safety alerts

How can Wanco and QLynx help?

Wanco is the industry's leading manufacturer of portable traffic control devices. QLynx Technologies develops ITS solutions for automated, real-time Smart Work Zone Systems. QLynx integrates Wanco equipment and ITS solutions for implementing, managing and operating 21st-century transportation systems.

QLynx is a premier Smart Work Zone and Portable ITS company with a long history providing high quality, reliable systems. QLynx stands out for its knowledge of the roadside equipment, hardware, software and systems needed for providing smooth-running Smart Work Zone Systems.

Simple or complex — each ITS solution is custom designed

ITS technologies transform surface transportation by offering a connected environment. Every solution is custom designed by experts who understand the intricacies, needs and risks involved. We work with DOTs and others to successfully implement complex ITS solutions.

- ■ "Trucks entering highway" warnings
- ■ Queue detection/warning systems
- ■ Portable camera systems
- ■ Crash prevention and safety
- ■ Traveler information applications
- ■ Travel-time systems
- ■ Event-traffic management
- ■ Collision avoidance systems
- ■ Dynamic late-merge systems
- ■ Portable ramp metering
- ■ Doppler radar systems
- ■ "Speed Ahead" warnings
- ■ "Sharp curve" and "wrong way" warnings
- ■ Freeway and arterial management

Travel-time measurement system ▶

Sensors identify vehicles at one point in a road network, and then at another point downstream to calculate travel time for each defined road segment.

Appropriate instructions are transmitted to variable message signs and other traffic calming devices in real time, well in advance of road work zones and traffic congestion. The signs display relevant information, such as end-of-queue warning, travel time and "speed ahead" messages.

A report on the implementation of route information and management systems in Germany determined that, on roads with high traffic volumes, traffic accidents decreased as much as 64% after system implementation.*

*W. Siegener, K. Träger, K. Martin & T. Beck, "Accident occurrence in the area of route information and management systems, allowing particularly for traffic load." IVT Ingenieurbüro für Verkehrstechnik GmbH. BAST. 2000.
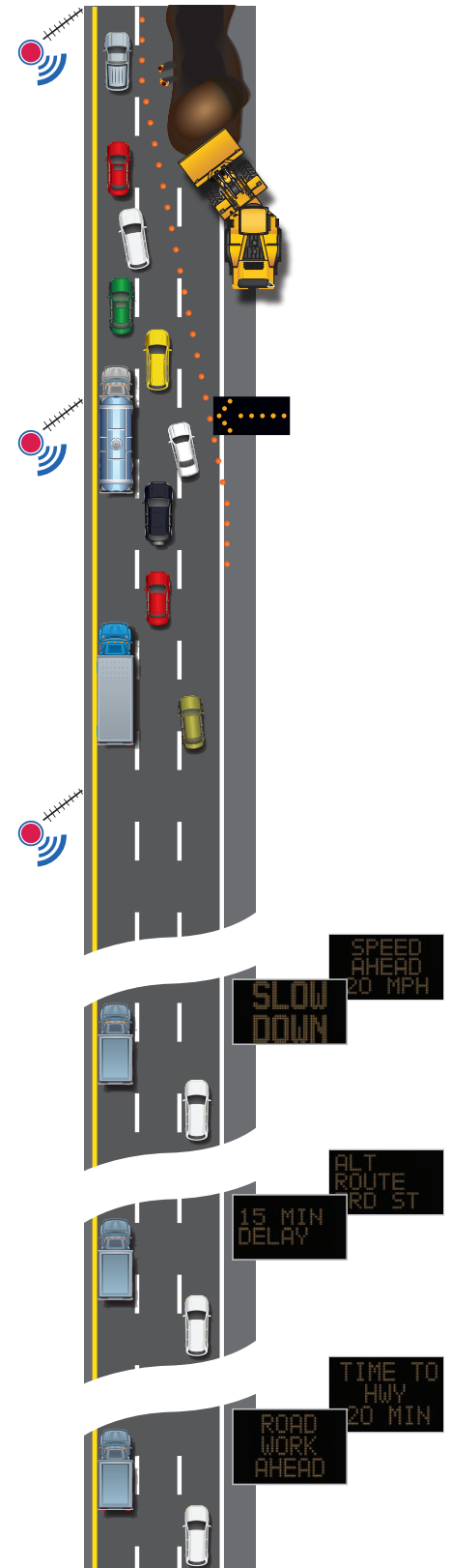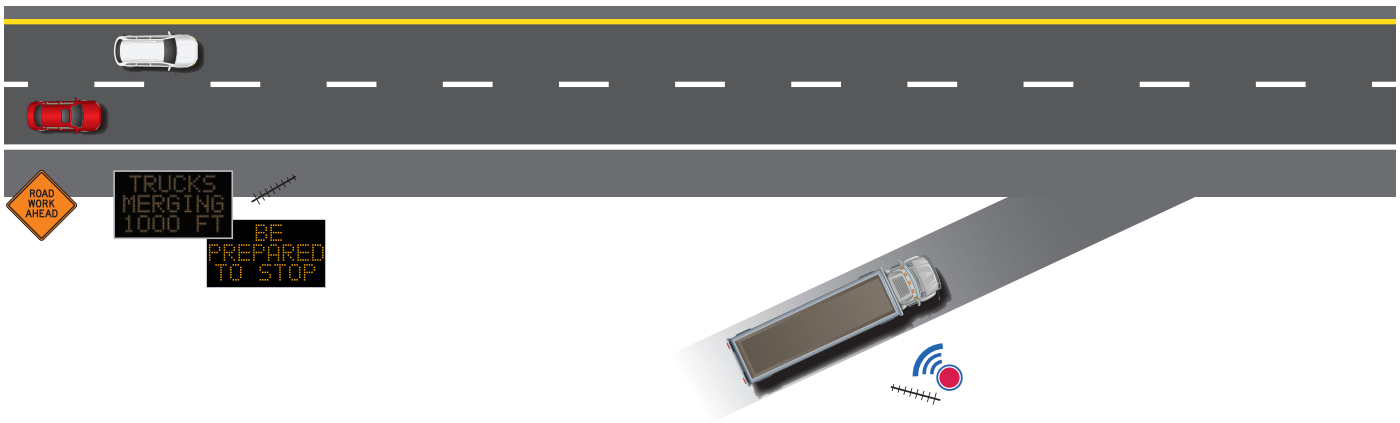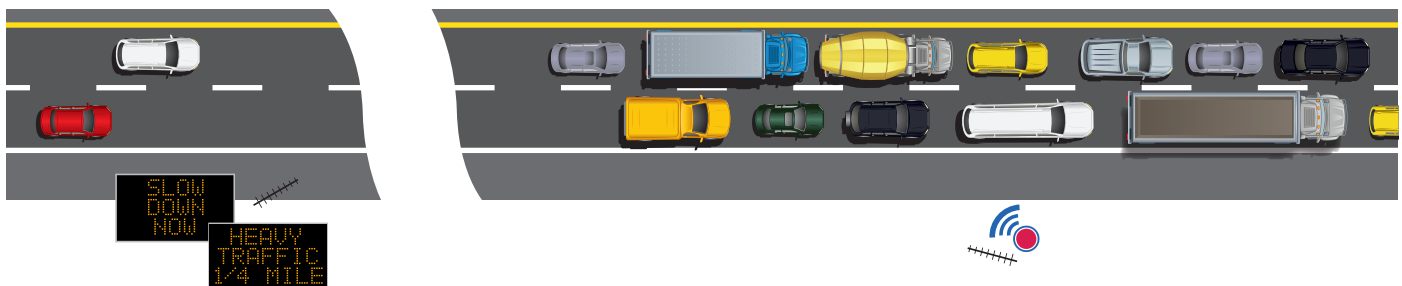
▲ Trucks entering highway

Temporary traffic-control warning signs call out potential hazards but cannot change with conditions.

Dynamic messaging responds to signals from sensors on haul roads and provides information about hazards in real time. When haul roads change locations as construction progresses, portable traffic control devices can also be moved.

▼ Queue detection

Abrupt slowdowns in work zones are common, often resulting in serious rear-end collisions. And drivers who veer off the road to avoid accidents put worker lives at risk.

Automated queue detection systems provide real-time warnings well in advance of slowdowns, allowing motorists to brake early, avoid accidents and save lives by remaining on the roadway.

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SMART WORK ZONE TECHNOLOGY

Wanco® TWS
Trucks-Entering-Highway Warning Systems

Warn drivers of truck traffic ahead to prevent collisions and injuries

- Portable system—no infrastructure investment
- Fully automated nonintrusive detection system
- RF transmission to dedicated receiver
- Near-zero latency
- Easy to deploy

The Wanco Trucks-Entering-Highway Warning System (TWS) is a portable, automated system that notifies drivers when construction vehicles are leaving a worksite and entering the highway. This intelligent traffic system acts as a precautionary measure to keep drivers and construction workers safe by avoiding potential collisions.

The Wanco TWS consists of two pieces of equipment that are "paired" electronically prior to deployment: a sensor trailer is located near the on-ramp from the worksite, while an oversized sign trailer with dual signal beacons is located next to the highway upstream from the on-ramp. The sensor trailer detects when a truck is bound for the highway and sends a signal to the beacons trailer. The beacons trailer, upon receiving the signal, activates its alternating flashing beacons. The beacons trailer is located far enough up the roadway so drivers approaching the work zone have enough distance to slow down or change lanes before they reach the merging traffic.

The TWS sensor trailer uses a nonintrusive ultrasonic signal to detect trucks approaching the highway. Its RF communication with the TWS beacons trailer is nearly instantaneous, as is the beacon activation.

The system is connected in real time to the Wanco Fleet Manager service via cellular modem. The system logs each detection event with a date and time stamp, and all data, including beacons-on time, system voltages and trailer locations can be accessed remotely using Fleet Manager. The TWS operates independently from Fleet Manager, continuously monitoring and warning drivers even if the cellular signal is interrupted.

Both trailers are portable, easy to transport and simple to deploy. Power is supplied by batteries, which are charged by an automated solar-based charging system. Low power consumption ensures reliable performance even for long-term deployments. The system can be deployed just about anywhere for any duration.

Sensor Trailer

RF comm

Beacons Trailer
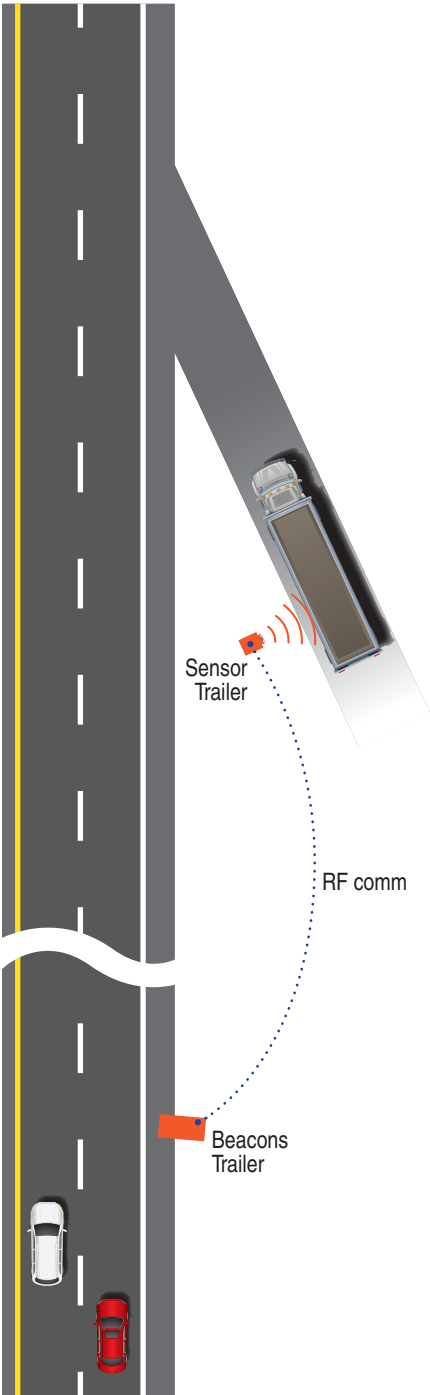
Brief specifications

Detection signal	Ultrasonic	Remote control	Wanco Fleet Manager
Max. detection distance	32 ft (9.75 m)	Remote communications	4G LTE modem
Wireless communications	900 MHz RF signal	Flashing beacons	8-inch signal beacons alternate flashing
Max. wireless range	1500 ft (460 m)		

QLynx Nano
Advanced ITS Sensor

QLynx Nano

- ✓ 🔴 Radar
- ✓ 📡 GPS
- ✓ 📶 4G Network

47 MPH ⚙

ON
OFF

P⚡WERED BY QLYNX
SMART WORK ZONE TECHNOLOGY

An evolutionary leap in ITS

Your way into ITS begins with the QLynx Nano, a remarkably simple device that supports queue detection systems, travel time systems, dynamic lane merge systems and many more.

- ■ **Advanced sensor technology**
- ■ **Touchscreen controller with intuitive icons**
- ■ **Easy error-proof setup**
- ■ **4G LTE modem with internal antennas**
- ■ **Compact and mounts anywhere**

The QLynx Nano is a versatile ITS sensor that is compact, portable and ridiculously easy to set up. It is hassle-free—just turn it on, point it at traffic and check the screen.

The most advanced sensor available today, the QLynx Nano detects traffic speed and presence, then sends updates to other ITS system devices, including websites and message signs. The QLynx trailer is built tough for towing, yet is light enough for two people to lift it into and out of a truck bed. The Nano can be deployed with or without the trailer.

The Nano works no matter who sets up the device on site. It is the only portable ITS system that gives immediate, understandable feedback: large green check marks appear on the touchscreen interface to indicate the Nano is functioning properly.

To ensure the Nano operates effectively with the latest wireless technologies, it uses an integrated 4G LTE modem. For ease of installation, it has internal antennas. It also accepts an RF antenna for use in areas without cellular reception.

Low power consumption ensures reliable performance even for long-term deployments. The Nano can be deployed just about anywhere for any duration without needing to be recharged. With multiple mounting configurations, the Nano can be installed on our portable sensor trailer, or co-located with existing equipment such as message signs. It can be pole-mounted, sign stand mounted or installed nearly anywhere you need it.
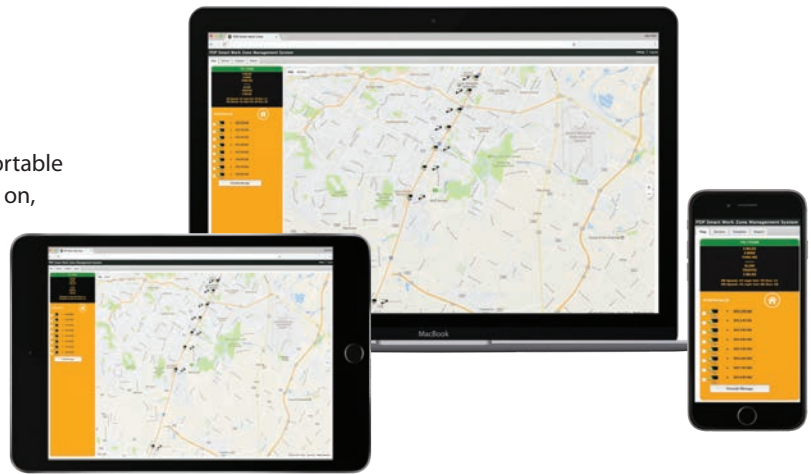
QLynx Nano powers award-winning web-based ITS systems

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SMART WORK ZONE TECHNOLOGY

Brief specifications

4G LTE modem on Verizon® Wireless standard

Optional instant point-to-point wireless communication—perfect for truck warning or limited curve sight warning applications

Automated solar charging for unlimited deployment duration

Always up to date with automatic over-the-air software updates

Secure data transmission with optional virtual private network (VPN)

2.8-inch TFT touchscreen for error-free setup

ARM Cortex 168 MHz processor

QLynx TWS

Trucks-Entering-Highway Warning Systems

An evolutionary leap in ITS

QLynx TWS is a portable, automated, real-time ITS solution for warning oncoming traffic of trucks entering the highway. This advance notice allows drivers to slow down or stop, avoiding a collision.
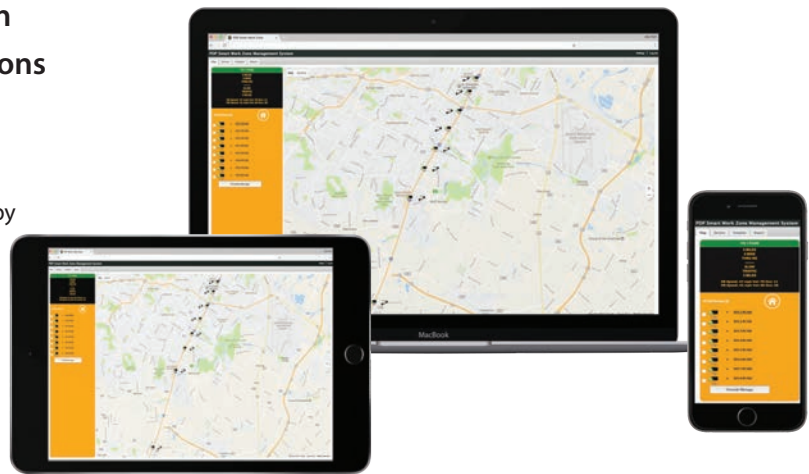
- **Nonintrusive automated detection system**
- **RF transmission to dedicated receiver**
- **Near-zero latency**
- **Needs no modem or cellular connection**
- **Touchscreen controller with intuitive icons**

QLynx TWS sensors use nonintrusive radar to detect trucks approaching the road, instantly sending messages to nearby message signs and flashing work zone signs. The signs warn motorists in advance of the approaching hazard, providing sufficient time to avoid a collision.

The sensors are paired with Wanco® Message Signs and Fold-n-Go™ Portable Sign Trailers as needed. The sensor system sends signals to the signs using RF transmission. Message signs respond in real time by displaying messages to motorists on the road. Fold-n-Go trailers have regulatory work zone signs installed and include beacons that flash when signaled by the QLynx sensors.

QLynx trailers and mated signs are all portable. They are easy to transport and deploy. The QLynx TWS works no matter who sets it up on site. This is the only portable ITS system that gives immediate, understandable feedback at the device: large green check marks appear on the touchscreen interface to indicate the system is functioning properly.

The QLynx TWS features automated solar-based charging. Low power consumption ensures reliable performance even for long-term deployments. The system can be deployed just about anywhere for any duration without needing to be recharged.

With optional cellular modem, QLynx TWS features this award winning web-based ITS user interface.

POWERED BY QLYNX
SMART WORK ZONE TECHNOLOGY

Brief specifications

Point-and-shoot deployment

Instant point-to-point wireless communication

Automated solar charging for unlimited deployment duration

2.8-inch TFT touchscreen for error-free setup

ARM Cortex 168 MHz processor

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