



Safe travels!

Traffic and Parking Control Co., Inc.  
 5100 West Brown Deer Road  
 Brown Deer, Wisconsin 53223  
 Phone (800) 236-0112 • TAPCO.net.com • Fax (800) 444-0331

**SALES QUOTE**

**Customer Copy**

Number	Q22012804
Date	8/15/2022
Page	1

Sell To Cust. C7674	Village Of Long Grove Scott Hoyne 3110 Rfd Old Mchenry Road Long Grove, IL 60047 USA	Ship To Cust.	Village Of Long Grove 3110 Rfd Old Mchenry Road Long Grove, IL 60047 USA
------------------------	--	---------------	---

Customer PO #	Expires	Slsp	Terms	Freight	Ship Via
OVERHEIGHT WARNINS SYSTEM	9/15/2022	Deidre Jones	Net 30 DAYS	PREPAY/ADD	BEST RATE

Item	Description	Quantity	UM	Price	Extension
	Village Of Long Grove - OHVDS **BUDGETARY** *** East Approach Detection - AC, Streetlight Pole mount***				
139264	Over Height Sensor Assembly	1	EA	8,500.00	\$8,500.00
2180-CUSTOM	Controller, OverheightIP, 120VAC, 139527, Bottom Conduit, Radio, Simrex, CBW, REF 503174	1	EA	8,000.00	\$8,000.00
503175	Controller, OverheightS, 120VAC, 139527, Bottom Conduit, Simrex	1	EA	4,693.00	\$4,693.00
2180-BRKT-MAG-U	Cabinet Bracket Set, U-Bolt, 3/8" PEM Mount, for use with 139527 enclosures *** East Approach Warning - AC***	2	EA	267.00	\$534.00
500106	Controller, 120VAC, 108045, Hollow, Radio	2	EA	1,725.00	\$3,450.00
2180-BRKT-R	Cabinet Bracket Set, Fits Round Poles 2-3/8 & Up, Standard Hardware, Brackets, & Snap Locks	2	EA	45.00	\$90.00
300017	Blinkersign, 36"x36"x.080, DMD, DG3, FY, DF, 8 Amber LEDs, SPM	2	EA	1,400.00	\$2,800.00
111531K	Sign Mounting Kit, Banded, Flared Leg, Anti-Vandal For Mounting One Blinker Sign to a Large Pole	2	EA	59.95	\$119.90
035-00008	Flared Leg Bracket, No Bolt, no Washer	4	Each		
052-00295	Nylon washer 5/16" x 7/8" OD	4	Each		
100626	GatorLock ,Small,Fits 5/16" Nut&Bolt,Anodized	4	Each		
140153	Worm Gear Clamp kit, 2 #40 and 2 #152 clamps	2	Each		
100628	GatorLock Hex Socket, 1/2"x1/4",For Use w/Small,	2	Each		
100326	Bolt 5/16-18x1-1/2 Hexagon S/S	4	Each		

Shipment within \_\_\_\_\_  
 Acceptance By \_\_\_\_\_  
 Date \_\_\_\_\_  
 By \_\_\_\_\_

Merchandise	Freight	Tax	Total
\$79,434.60	\$0.00	\$0.00	\$79,434.60

All prices are listed in US Dollars (USD)  
 For terms and conditions, please visit: <https://www.tapconet.com/terms-conditions>



Safe travels!

Traffic and Parking Control Co., Inc.  
 5100 West Brown Deer Road  
 Brown Deer, Wisconsin 53223  
 Phone (800) 236-0112 • TAPCOnet.com • Fax (800) 444-0331

**SALES QUOTE**

**Customer Copy**

Number	Q22012804
Date	8/15/2022
Page	2

Sell To Cust. C7674	Village Of Long Grove Scott Hoyne 3110 Rfd Old Mchenry Road Long Grove, IL 60047 USA	Ship To Cust.	Village Of Long Grove 3110 Rfd Old Mchenry Road Long Grove, IL 60047 USA
------------------------	--	---------------	---

Customer PO #	Expires	Slsp	Terms	Freight	Ship Via
OVERHEIGHT WARNINS SYSTEM	9/15/2022	Deidre Jones	Net 30 DAYS	PREPAY/ADD	BEST RATE

Item	Description	Quantity	UM	Price	Extension
373-13	Pole Package, 13', 4.5" OD, 42" J-Bolts Includes: Pole, Base, J-Bolts	2	EA	1,150.00	\$2,300.00
203-00014	Standard Aluminum Pole, 13' Schedule 40	2	Each		
3177-00042	Base, Aluminum Square Pedestal, No Paint	2	Each		
030-00006	J-Bolt, 1"x 42"+4" ATSM F1554 GR-105 92K	8	Each		
	Washer Flat 1-1/16"ID x2.5OD"x.125" Galvanized	8	Each		
203-00013	Cap, 4.5" OD Pole, Raw, 4C Signal with(3) 1/4x3/4-20 stainless steel hex head Bolts	2	EA	29.95	\$59.90
	*** West Approach Detection - Solar ***				
139264	Over Height Sensor Assembly	1	EA	8,500.00	\$8,500.00
2180-CUSTOM	Controller, OverheightP, 12V, Prostar-15, 139527, Bottom Conduit, Radio, CBW, Simrex, REF: 500617	1	EA	7,000.00	\$7,000.00
2180-CUSTOM	Controller, OverheightS, 12V, Prostar-15, 139527, Bottom Conduit, Simrex, REF: 500589	1	EA	6,900.00	\$6,900.00
2180-BRKT-MAG-U	Cabinet Bracket Set, U-Bolt, 3/8" PEM Mount, for use with 139527 enclosures	2	EA		
148566	DUAL 85W/12V SOLAR PANEL PACKAGE, SIDE OF POLE MOUNT	2	EA	1,550.00	\$3,100.00
148571	SOLAR PANEL, TEMPERED GLASS, 85W/12V, MODIFIED	2	Each		
148572	SOLAR PANEL, TEMPERED GLASS, 85W/12V, MODIFIED,	2	Each		
145560	BRACKET ASSEMBLY, 85W/130W,	2	Each		
147374	SOLAR PANEL BRACKET EXTENSION, 85W/130W,	2	Each		

Shipment within \_\_\_\_\_  
 Acceptance By \_\_\_\_\_  
 Date \_\_\_\_\_  
 By \_\_\_\_\_

Merchandise	Freight	Tax	Total
\$79,434.60	\$0.00	\$0.00	\$79,434.60

All prices are listed in US Dollars (USD)  
 For terms and conditions, please visit: <https://www.tapconet.com/terms-conditions>



Safe travels:

Traffic and Parking Control Co., Inc.  
 5100 West Brown Deer Road  
 Brown Deer, Wisconsin 53223  
 Phone (800) 236-0112 • TAPCO.net.com • Fax (800) 444-0331

**SALES QUOTE**

**Customer Copy**

Number	Q22012804
Date	8/15/2022
Page	3

Sell To Cust. C7674	Village Of Long Grove Scott Hoyne 3110 Rfd Old Mcherry Road Long Grove, IL 60047 USA	Ship To Cust.	Village Of Long Grove 3110 Rfd Old Mcherry Road Long Grove, IL 60047 USA		
Customer PO #	Expires	Slsp	Terms	Freight	Ship Via
OVERHEIGHT WARNINS SYSTEM	9/15/2022	Deidre Jones	Net 30 DAYS	PREPAY/ADD	BEST RATE

Item	Description	Quantity	UM	Price	Extension
3562-00001	Battery, Universal Battery, 12V 100Ah, AGM, UB121000	4	EA	625.00	\$2,500.00
137460	Pole Package, 20', 4.5" OD, 42" J-Bolts Includes: Pole, Base, J-Bolts, Wind Coller	2	EA	1,550.00	\$3,100.00
203-00014	Base, Aluminum Square Pedestal, No Paint	2	Each		
3177-00042	J-Bolt, 1"x 42"+4" ATSM F1554 GR-105 92k	8	Each		
030-00006	Washer Flat 1-1/16"ID x2.5OD"x.125" Galvanized	8	Each		
109482	Collar Assembly, Square Base, Aluminum, Wind Collar	2	Each		
373-2080	Standard Aluminum Pole, 20, Schedule 80, 4.5"OD	2	Each		
500029	Cap, 4.5" OD Pole, Raw, 4C Signal with(3) 1/4x3/4-20 stainless steel hex head Bolts *** West Approach Warning - Solar***	2	EA	29.95	\$59.90
500029	Controller, 12V, Sun saver, 108045, Hollow, Radio	2	EA	1,725.00	\$3,450.00
2180-BRKT-R	Cabinet Bracket Set, Fits Round Poles 2-3/8 & Up, Standard Hardware, Brackets, & Snap Locks	2	EA	45.00	\$90.00
SLR-30-B	30W/12V Solar Panel Package, Top of Pole Mount 4.5 Dia	2	EA	569.00	\$1,138.00
2180-35AHAGN-BAT	Battery, 35Ah 12V AGM Lead Acid	2	EA	285.00	\$570.00
300017	Blinkersign, 36"x36"x.080, DMD, DG3, FY, DF, 8 Amber LEDs, SPM	2	EA	1,400.00	\$2,800.00
111531K	Sign Mounting Kit, Banded, Flared Leg, Anti-Vandal For Mounting One Blinker Sign to a Large Pole	2	EA	59.95	\$119.90
035-00008	Flared Leg Bracket, No Bolt, no Washer	4	Each		
052-00295	Nylon washer 5/16" x 7/8" OD	4	Each		
100626	GatorLock ,Small, Fits 5/16" Nut&Bolt, Anodized	4	Each		

Shipment within \_\_\_\_\_  
 Acceptance By \_\_\_\_\_  
 Date \_\_\_\_\_  
 By \_\_\_\_\_

Merchandise	Freight	Tax	Total
\$79,434.60	\$0.00	\$0.00	\$79,434.60

All prices are listed in US Dollars (USD)  
 For terms and conditions, please visit: <https://www.tapconet.com/terms-conditions>



Safe travels!

Traffic and Parking Control Co., Inc.  
 5100 West Brown Deer Road  
 Brown Deer, Wisconsin 53223  
 Phone (800) 236-0112 • TAPCOnet.com • Fax (800) 444-0331

**SALES QUOTE**

**Customer Copy**

Number	Q22012804
Date	8/15/2022
Page	4

Sell To Cust. C7674	Village Of Long Grove Scott Hoyne 3110 Rfd Old Mcherry Road Long Grove, IL 60047 USA	Ship To Cust.	Village Of Long Grove 3110 Rfd Old Mcherry Road Long Grove, IL 60047 USA
------------------------	--	---------------	---

Customer PO #	Expires	Sisp	Terms	Freight	Ship Via
OVERHEIGHT WARNINS SYSTEM	9/15/2022	Deidre Jones	Net 30 DAYS	PREPAY/ADD	BEST RATE

Item	Description	Quantity	UM	Price	Extension
140153	Worm Gear Clamp kit, 2 #40 and 2 #152 clamps	2	Each		
100628	GatorLock Hex Socket, 1/2"x1/4", For Use w/Small,	2	Each		
100326	Bolt 5/16-18x1-1/2 Hexagon S/S	4	Each		
373-13	Pole Package, 13', 4.5" OD, 42" J-Bolts Includes: Pole, Base, J-Bolts	2	EA	1,150.00	\$2,300.00
203-00014	Standard Aluminum Pole, 13' Schedule 40	2	Each		
3177-00042	Base, Aluminum Square Pedestal, No Paint	2	Each		
030-00006	J-Bolt, 1"x 42"+4" ATSM F1554 GR-105 92k	8	Each		
	Washer Flat 1-1/16"ID x2.5OD"x.125" Galvanized	8	Each		
	TAPCO On Site to Oversee Install	1	HOUR	4,860.00	\$4,860.00
	Design Engineering Services	6	DAY	400.00	\$2,400.00

Plus Shipping and Handling

Quote is budgetary, pricing and parts subject to change. Full project details needed before order can be placed

Furnish only quote. Installation is not included. Solar powered equipment requires no shading or obstructions

Shipment within \_\_\_\_\_  
 Acceptance By \_\_\_\_\_  
 Date \_\_\_\_\_  
 By \_\_\_\_\_

Merchandise	Freight	Tax	Total



Safe travels!

Traffic and Parking Control Co., Inc.
5100 West Brown Deer Road
Brown Deer, Wisconsin 53223
Phone (800) 236-0112 • TAPCO.net.com • Fax (800) 444-0331

SALES QUOTE

Customer Copy

Table with 2 columns: Field (Number, Date, Page) and Value (Q22012804, 8/15/2022, 5)

Table with 2 columns: Sell To Cust. (C7674) and Ship To Cust. (Village Of Long Grove, 3110 Rfd Old Mchenry Road, Long Grove, IL 60047 USA)

Table with 6 columns: Customer PO # (OVERHEIGHT WARNINS SYSTEM), Expires (9/15/2022), Slsp (Deidre Jones), Terms (Net 30 DAYS), Freight (PREPAY/ADD), Ship Via (BEST RATE)

TAPCO will make every effort to ship all systems in normal process; however, as a result of global supply chain constraints some components might be impacted by extended lead times.

Custom System and not returnable

Thank you! Deidre Jones
Email: Deidre.jones@tapconet.com
Phone: 262-649-5227

Shipment within
Acceptance By
Date
By

Summary table with 4 columns: Merchandise (\$79,434.60), Freight (\$0.00), Tax (\$0.00), Total (\$79,434.60)

All prices are listed in US Dollars (USD)
For terms and conditions, please visit: https://www.tapconet.com/terms-conditions

# BlinkerSign® Overheight Warning System Proposal

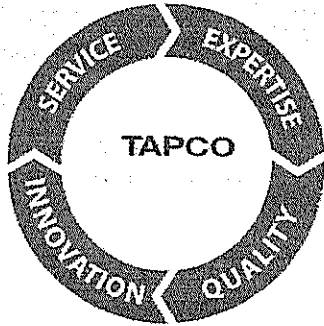


**CUSTOMER NAME**

Village Of Long Grove

**SALES REPRESENTATIVE**

Deidre Jones



As an industry-leading innovator, TAPCO manufactures, services and distributes a wide portfolio of traffic and parking safety solutions designed to increase safe travels for all. Since 1956, we have set the standard for delivering reliable, cutting-edge traffic safety enhancements. From our world-renowned line of LED-enhanced BlinkerSign® solutions to our pedestrian crossing products and early detection warning systems, safety is at the heart of all TAPCO innovations.

### Generations of Expertise

Working alongside traffic professionals for more than 60 years gives our team an exclusive perspective on the past, present and future needs of the traffic and parking safety industry.

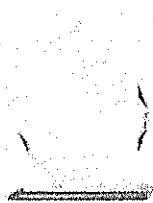


### A Nationwide Reach

With successful solution installations throughout all 50 states, we understand the safety concerns communities face across the nation.

### Innovative, Smart City Technology

Our mission is to continue to lead the industry with an innovative, customer-focused approach that evolves with the technological demands of our customers.



### Award-Winning Mindset

As a family-owned company, we take pride in establishing and maintaining our innovative culture.



# Proposal Summary

TAPCO Contact:

5100 W Brown Deer Rd | Brown Deer, WI 53223  
 Phone: (800) 236-0112 | Fax: (800) 444-0331  
 tapconet.com

Quote Number: Q22012804

Deidre Jones

Quotes are valid for 30 days  
 unless otherwise specified

Customer: Village Of Long Grove	Document Date:	8/10/2022
	Submittal Title (herein referred to as Project):	BlinkerSign Overheight System
Installation Address/Location:	Customer Contact:	
	Phone Number:	
	Email:	
	Lead Time:	
Lead time valid for 30 days unless otherwise specified.		

**Project Summary:**

TAPCO will provide equipment for an Overheight Warning System.

Each detection pole will contain a stainless steel and aluminum control cabinet with a side of pole mounting bracket, controller and radio. The eastern approach will be A/C powered and the western approach will be solar powered. 12V power will be supplied by two 85W dual solar panels and four 100Ah batteries. 120 VAC power will be provided by end user.

Overheight Warning equipment will be mounted on separate poles. Each pole includes a control cabinet with radios and mounting brackets. Overheight Sensor Assemblies will be uni-directional and mounted near the top of 20' poles

TAPCO can be on site to provide advice during installation, calibration and testing as well as any training needed on the equipment once installation is complete.

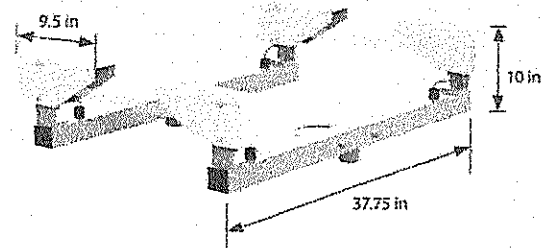
- Scope of work will be required prior to accepting purchase order
- Credit approval will be required if terms are requested
- Bid as alternate
- System contains custom components and is not returnable



# DUAL BEAM OVERHEIGHT SENSORS

## SPECIFICATIONS

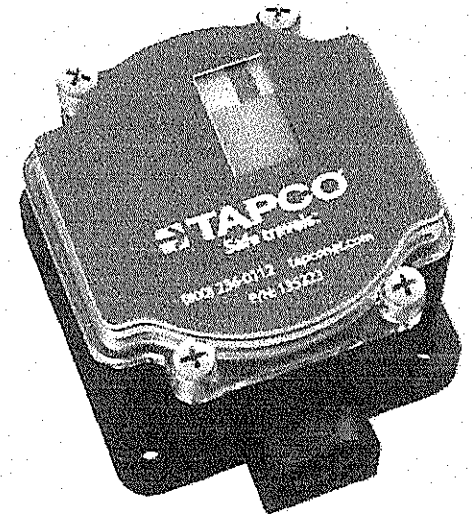
<b>POWER</b>	12VDC
<b>DIGITAL OUTPUT</b>	One (short circuit proof)
<b>SENSOR</b>	Dual photoelectric infrared switches with sensitivity adjustment
<b>MAXIMUM SENSOR RANGE</b>	150 feet
<b>ALIGNMENT</b>	Visual LED confirmation
<b>LENS HEATER</b>	Built-in
<b>ENCLOSURE</b>	Aluminum, IP67 rating
<b>INSTALLATION</b>	Dual sensor mounting bracket, banding or U-bolt
<b>WEATHER HOOD</b>	Stainless steel
<b>OPERATING TEMPERATURE RANGE</b>	-13°F to 131°F (-25°C to 55°C)
<b>DIMENSIONS WITH BRACKET</b>	37.8"W x 10"H x 9.5"D



# IWS CONTROLLER

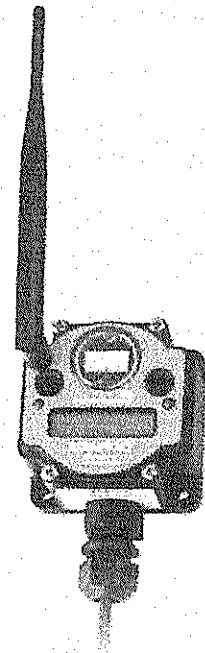
## SPECIFICATIONS

<b>POWER</b>	6V and 12VDC with power indicator light
<b>INPUTS</b>	2 digital inputs
<b>OUTPUTS</b>	2x two-channel (able to drive two warnings per output)
<b>PROGRAMMABILITY</b>	Locally using serial input (RS232) or remotely using BlinkLink® via cell modem
<b>PROGRAM ACTIVATION OPTIONS</b>	24/7, Dusk 'til Dawn, BlinkLink™ Scheduling, Time Clock, Custom Input
<b>LED-WARNING CONTROL COMPATIBILITY</b>	BlinkerSign®, BlinkerBeacon™, RRFB-XL2™
<b>DIMMABILITY</b>	Auto-adjustable via solar panel (6V systems) Auto-adjustable via photocell sensor (12V systems)
<b>INTERNAL SYSTEM CLOCK</b>	Integrated with on-board battery backup
<b>SELF-DIAGNOSTIC CAPABILITY</b>	Internal temperature monitor
<b>DAYLIGHT SAVING TIME</b>	User programmable
<b>OPERATING TEMPERATURE RANGE</b>	-40°F to 176°F (-40°C to 80°C)
<b>ENCLOSURE</b>	IP67 rated
<b>ENCLOSURE DIMENSIONS</b>	3.2"W x 3.7"H x 2.5"D



# BlinkerBeam® wireless traffic control systems add simple, reliable and versatile tools to ITS applications

When used on highway/roadway applications, BlinkerBeam wireless transmitters can activate pedestrian crosswalk signage, including BlinkerSign™ LED Signs, detection devices and many other traffic control devices. It can also be an integral part of critical warning systems for alerting bikers, joggers and pedestrians to the presence of vehicle traffic and vice versa. For simple, reliable and flexible wireless activation, nothing outshines the BlinkerBeam® System from TAPCO.

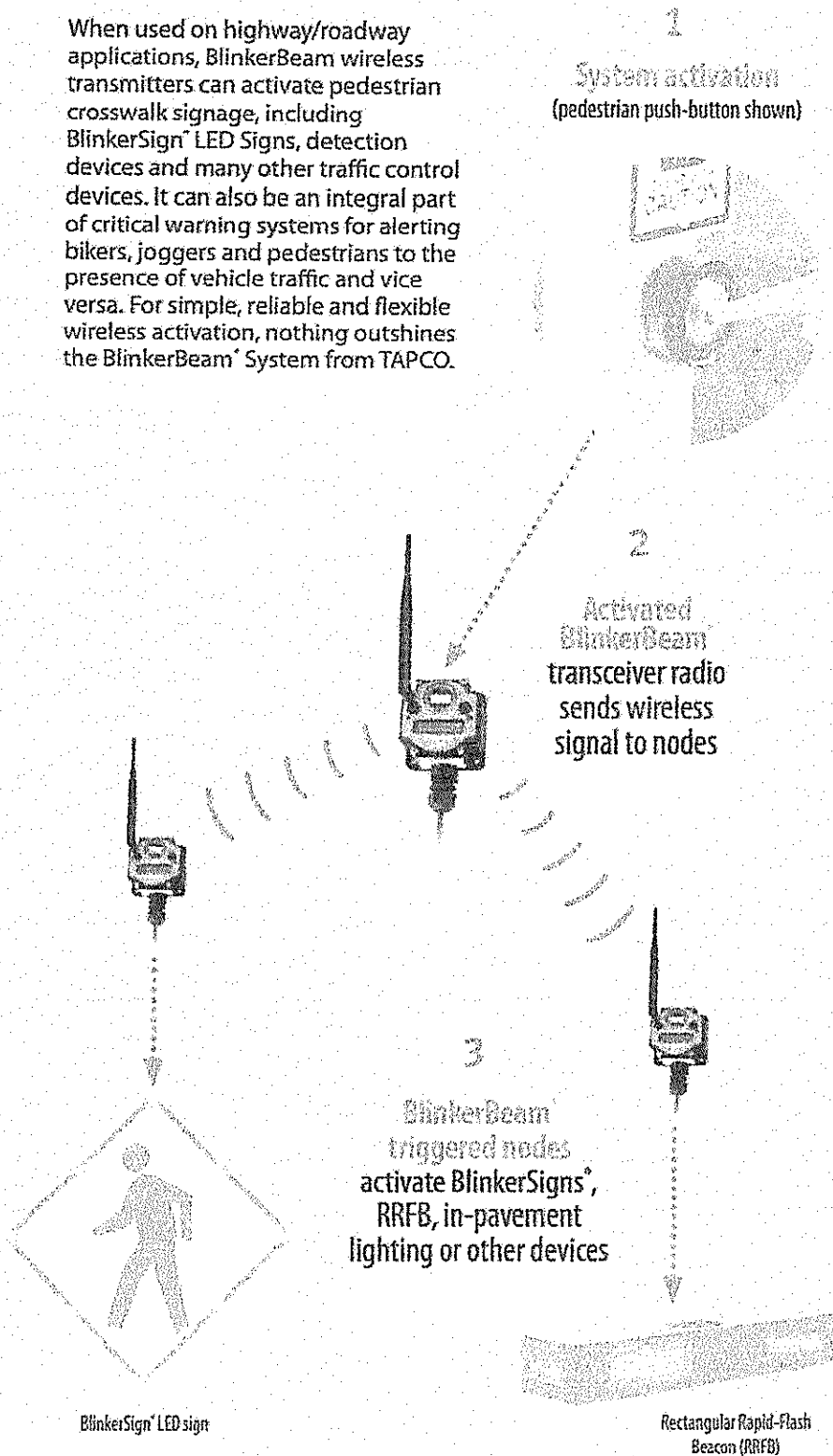


## The BlinkerBeam® controller

- ▣ Operates license-free on 902-928 MHz Spread Spectrum
- ▣ Stand-alone operation
- ▣ Solar Powered or 110 VAC operation, or optional two-year battery
- ▣ Fully programmable outputs
- ▣ Terminal Block for easy connectivity
- ▣ Range up to 900 feet with internal antenna, optional antenna for extended line of sight distance

## The advantages of solar power versus 110v AC

- ▣ Lower installation and operating costs
- ▣ Compact, clean appearance
- ▣ Self contained
- ▣ Easy to install
- ▣ Reduced labor
- ▣ No concrete cutting
- ▣ No electrician required
- ▣ No trenching
- ▣ Not affected by local grid power outages



**110V** 110V AC grid-powered systems are available

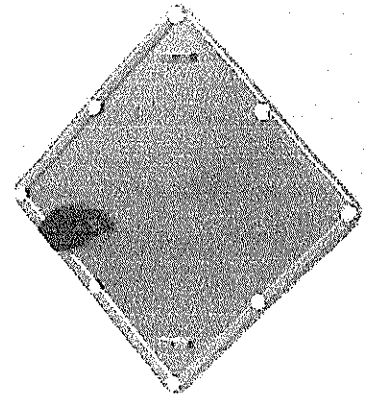
# TAPCO-INTEGRATED BLINKERSIGN®

## SPECIFICATIONS

<b>POWER</b>	12VDC or Low voltage, current controlled through TAPCO controller
<b>SIGN LEGEND</b>	Various MUTCD options available (W11-2 shown)
<b>SIGN SUBSTRATE</b>	.080" highway grade aluminum
<b>REFLECTIVE SHEETING</b>	3M™ DG3 with anti-graffiti overlay
<b>DIMMING</b>	Variable based on photocell sensor input or 6V solar panel
<b>FLASH PATTERN</b>	Various MUTCD-compliant options dependent upon sign legend
<b>LED TYPE</b>	Environmentally-sealed, high-power 1 watt LED
<b>LED COLOR</b>	Amber, red, white or orange (dependent on sign legend)
<b>LED QUANTITY</b>	Various options dependent upon sign legend
<b>LED LIFE EXPECTANCY</b>	100,000 hours
<b>VISIBILITY</b>	Daytime: more than 1,000 feet Nighttime: more than 1 mile
<b>MOUNTING BRACKETS</b>	Single post standard. Double post or Z-bar available
<b>OPERATING TEMPERATURE RANGE</b>	-40°F to 122°F (-40°C to 50°C)
<b>DIMENSIONS</b>	Various options dependent upon sign legend



FRONT



BACK

(800) 236-0112

TAPCOnet.com



December 1<sup>st</sup>, 2021

Dear Valued TAPCO Customers:

We are reaching out to all customers regarding global supply chain disruptions to key components and raw material inputs for several TAPCO products. TAPCO's supply chain team has been working tirelessly to avoid significant supply interruptions. Currently in our industry we are seeing major shortages in the following areas:

- LED lighting
- All aluminum-based products
- Solar-power and battery components
- Electronic Components
- Freight/logistics providers

Please accept this letter as TAPCO's notice of potential delays due to factors beyond our reasonable control. Our engineering and supply chain teams continue to leverage all available options to mitigate disruptions. Please be assured we are doing everything we can to obtain necessary materials to keep our commitments to our customers.

If you have any questions, please contact your local TAPCO sales representative, or call customer service at 1-800-236-0112.

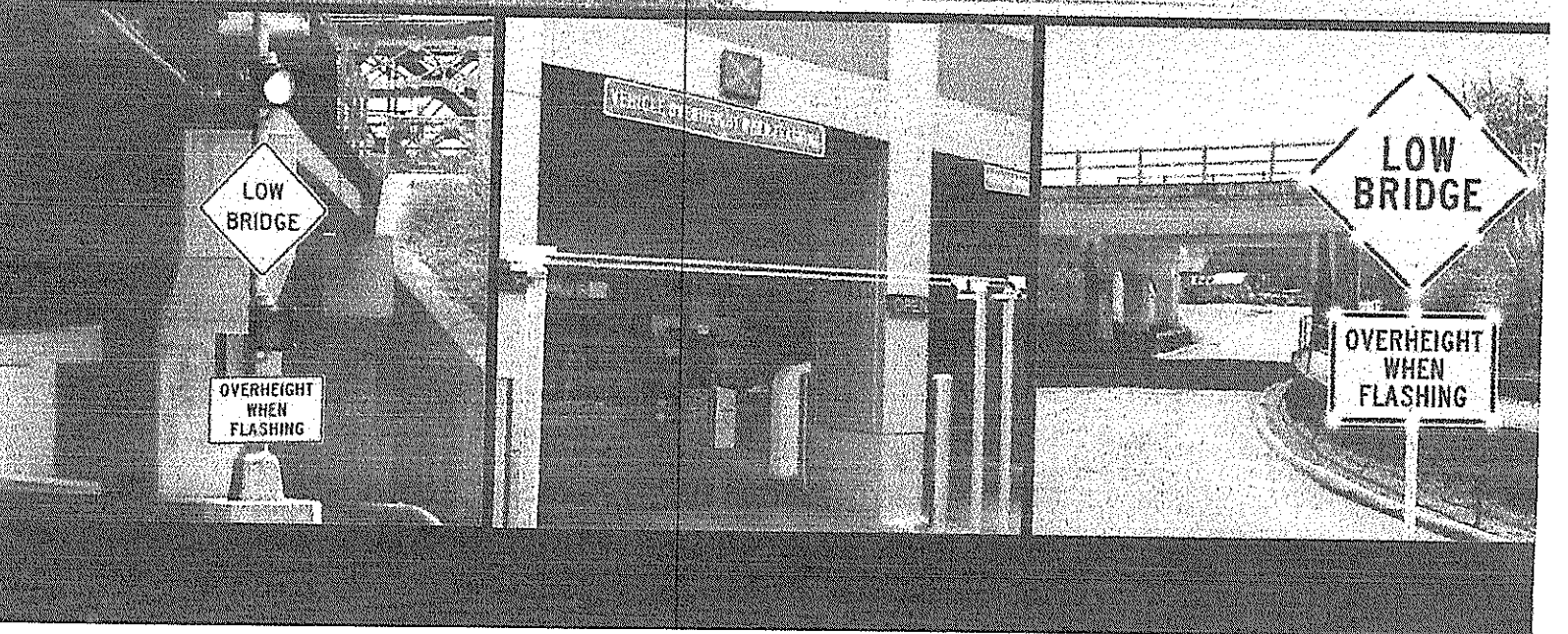
Sincerely,

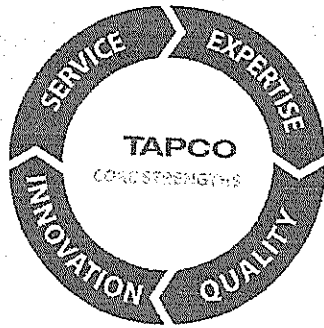
A handwritten signature in black ink that reads "Rob Prosser". The signature is written in a cursive, flowing style.

Rob Prosser  
Vice President of Sales & Marketing



# OVERHEIGHT WARNING SOLUTIONS





As an industry-leading innovator, TAPCO manufactures, services and distributes a wide portfolio of traffic and parking safety solutions designed to increase safe travels for all. Since 1956, we have set the standard for delivering reliable, cutting-edge traffic safety enhancements. From our world-renowned line of LED-enhanced BlinkerSign® solutions to our pedestrian crossing products and early detection warning systems, safety is at the heart of all TAPCO innovations.

### Generations of Expertise

Working alongside traffic professionals for more than 60 years gives our team an exclusive perspective on the past, present and future needs of the traffic and parking safety industry.

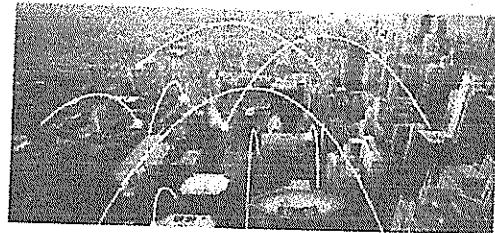


### A Nationwide Reach

With successful solution installations throughout all 50 states, we understand the safety concerns communities face across the nation.

### Innovative, Smart City Technology

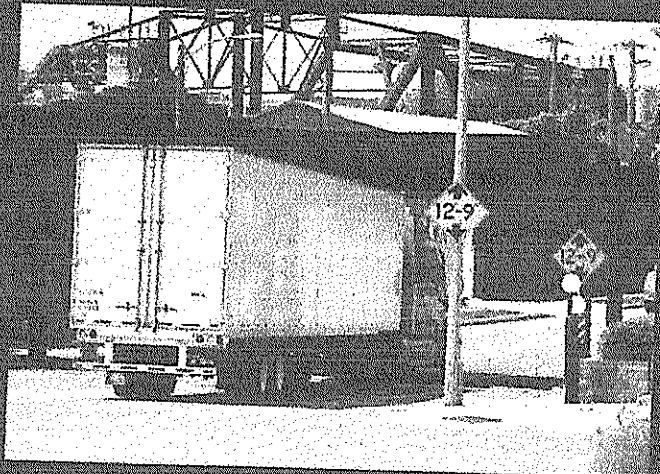
Our mission is to continue to lead the industry with an innovative, customer-focused approach that evolves with the technological demands of our customers.



### Award-Winning Mindset

As a family-owned company, we take pride in establishing and maintaining our innovative culture.



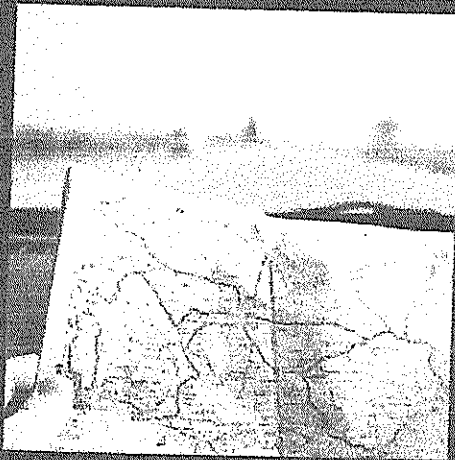


# Overheight Collisions: One Is Too Many

A concern for traffic professionals, overheight vehicle collisions against low structures cost \$300,000-\$500,000 to repair – draining already tight budgets in the process.

Add in the associated costs of local traffic congestion, new route planning and insurance premium hikes, one damage-causing strike is enough to significantly impact any city or roadway authority.

## Common Overheight Crash Factors



### Unfamiliar Routes

Often times, drivers blindly follow unfamiliar routes that result in encountering low bridges. These unaware drivers regularly collide with structures ahead or are too far down the road to take alternate routes, creating a dangerous wrong-way turnaround.



### Lack of Knowledge

Because truck heights vary based on load weight, inexperienced drivers may be unaware of the fluctuating height of their ever-changing load. With the false belief their truck will pass under structures, drivers fail to reroute, resulting in preventable collisions.



### Distracted, Tired Drivers

Attention is easily diverted in moments of fatigue and extreme stress. Static warning signs may not be enough to draw attention during these times, especially at night. By the time drivers become aware of an impending collision it may already be too late.



# SYSTEM OVERVIEW

## OVERHEIGHT WARNING SOLUTION

TAPCO Overheight Warning Systems provide transportation departments their best chance of avoiding potential budget destroying low structure collisions through detecting overheight vehicles and alerting drivers to an impending collision ahead.

This innovative system is designed to reduce major crash factors at low bridges, tunnels, weigh stations, underpasses, parking structures, and any low clearance hazards by:

- Detecting vehicles that won't clear the structure ahead
- Notifying drivers of height restrictions, bringing attention back to the road
- Directing drivers to a safe, alternate route

### REDUCES IMPACTS

- Proven to minimize the number of accidents caused by overheight vehicles.
- Eliminates unplanned costs associated with overheight incidents.

### SYSTEM FLEXIBILITY

- Custom designed to fit any road configuration.
- Solar power capability allows for installation in any environment.

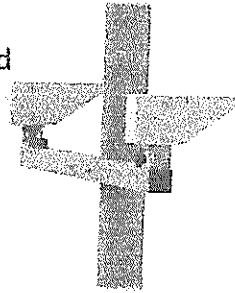


# SYSTEM OVERVIEW

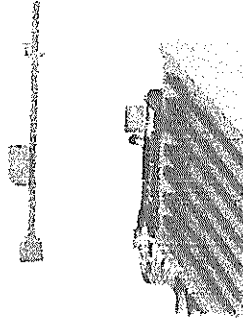
## OVERHEIGHT WARNING SOLUTION

### SYSTEM FUNDAMENTALS

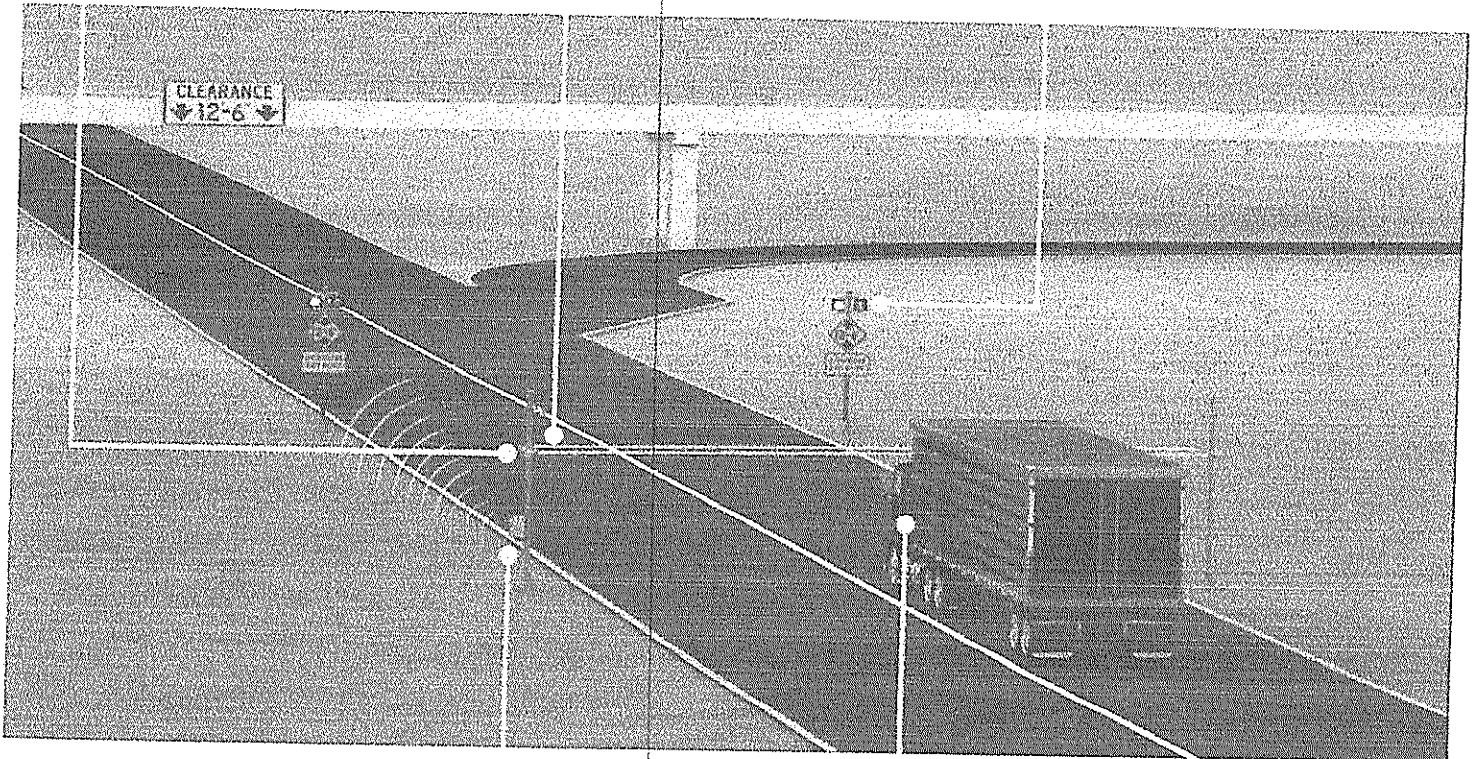
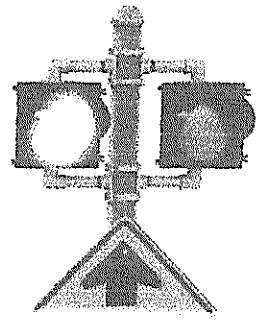
1 Dual beam overhead sensors mounted on both sides of the road transmit infrared beams to detect overheight vehicles.



2 When an overheight vehicle breaks the beams, a wireless signal activates the warning alerts.

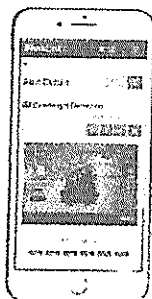


3 Warning alerts catch the driver's attention, notifying them of a collision ahead.

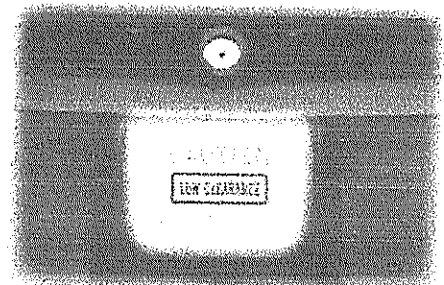


### OPTIONAL ENHANCEMENTS

4 Traffic officials can receive real-time visual verification of system activation, remotely monitor system status and collect data including activation trends through BlinkLink.



5 TAPCO's Connected Vehicle Interface sends connected motorists in-vehicle alerts, informing them of the low clearance ahead.



# SYSTEM ACTIVATIONS

## DUAL BEAM OVERHEIGHT SENSORS

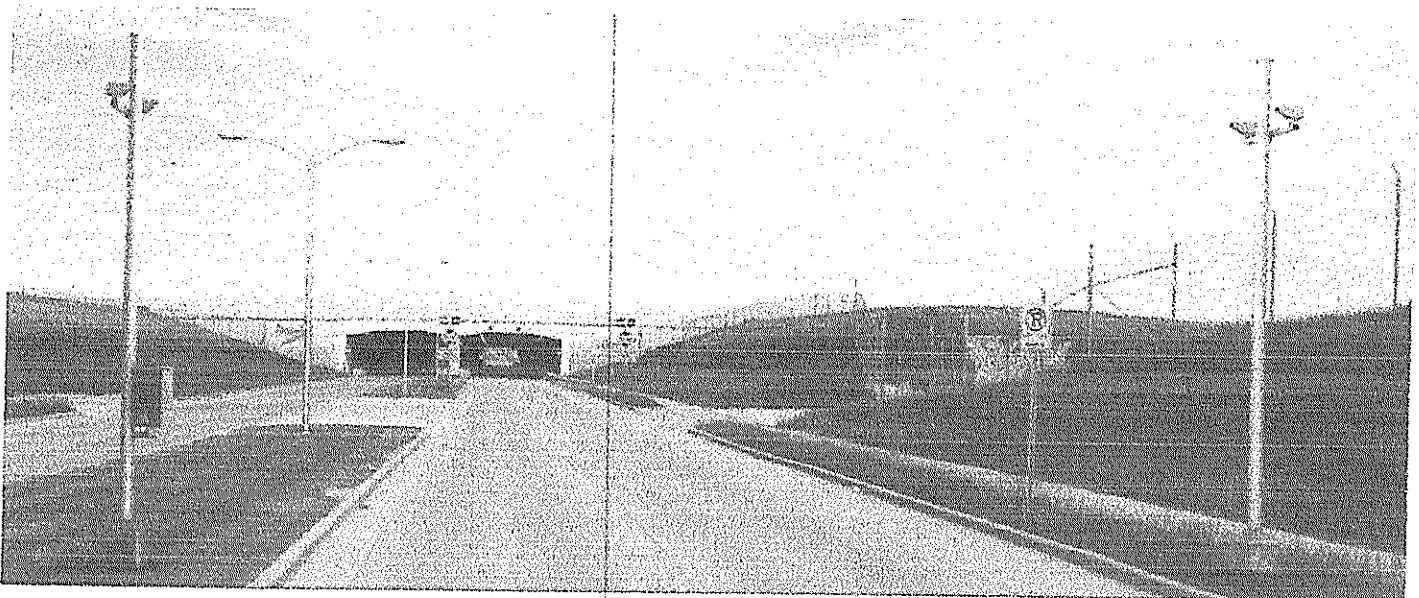
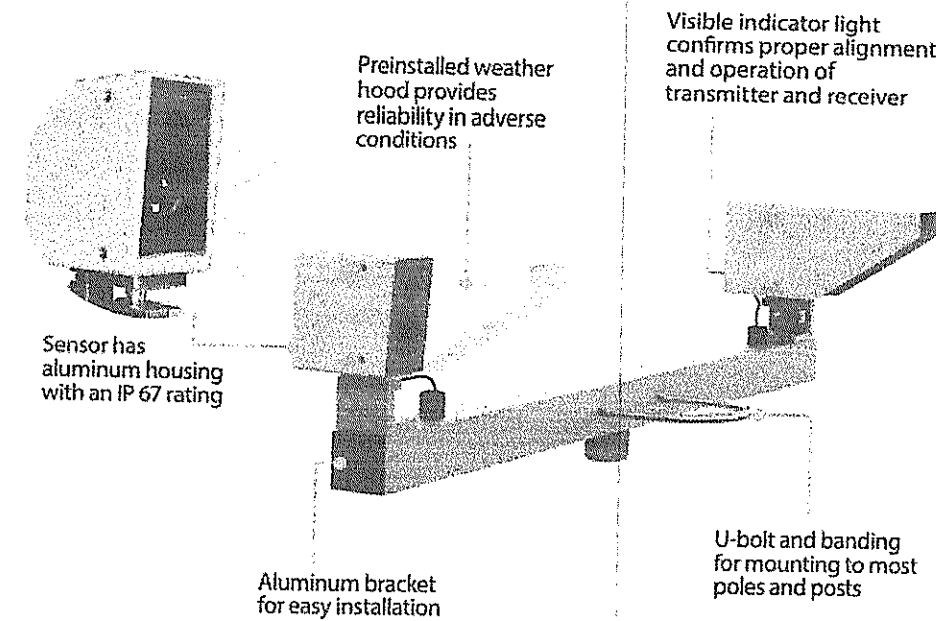
Infrared sensors are mounted on either side of the road in advance of the low structure, transmitting infrared beams over the road. When an overheight vehicle breaks the infrared beams, it immediately activates the system's warning devices.

### RELIABLE DETECTION

- Detects vehicles traveling at low or high speeds.
- Determines traffic direction at time of activation.

### CUSTOM INSTALLATION

- Sensor height tailored to low clearance structure of each system.
- Can be installed up to 150 feet apart.
- Single beam available in select applications.





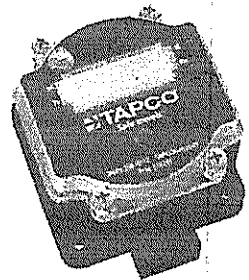
# WIRELESS COMMUNICATION

## BLINKERBEAM<sup>®</sup>

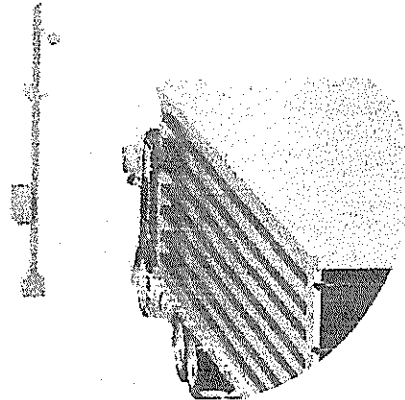
BlinkerBeam<sup>®</sup> wireless radios communicate system activation to all TAPCO warning alerts.

Placed at the detection or activation location, a transmitter radio sends wireless signals upon system activation to receiver radios located inside the control cabinet of each warning alert, triggering the alert to flash.

- Easy-to-read, backlit LCD display
- Intuitive joystick for in-field control
- Menu-driven diagnostics for quick set-up and configuration
- Three selectable power levels, up to one-watt, to increase signal distance
- Range of up to 900 feet; works with multiple antenna options to extend distance
- Utilizes 900 MHz frequency-hopping spread spectrum



BLINKERBEAM<sup>®</sup>  
WIRELESS RADIO



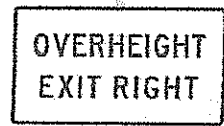
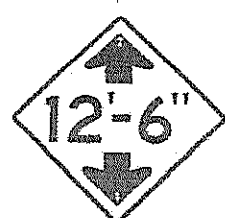
1 SYSTEM ACTIVATION



2 Activated  
BLINKERBEAM<sup>®</sup>  
TRANSMITTER RADIO  
sends wireless  
signal to receiver(s)



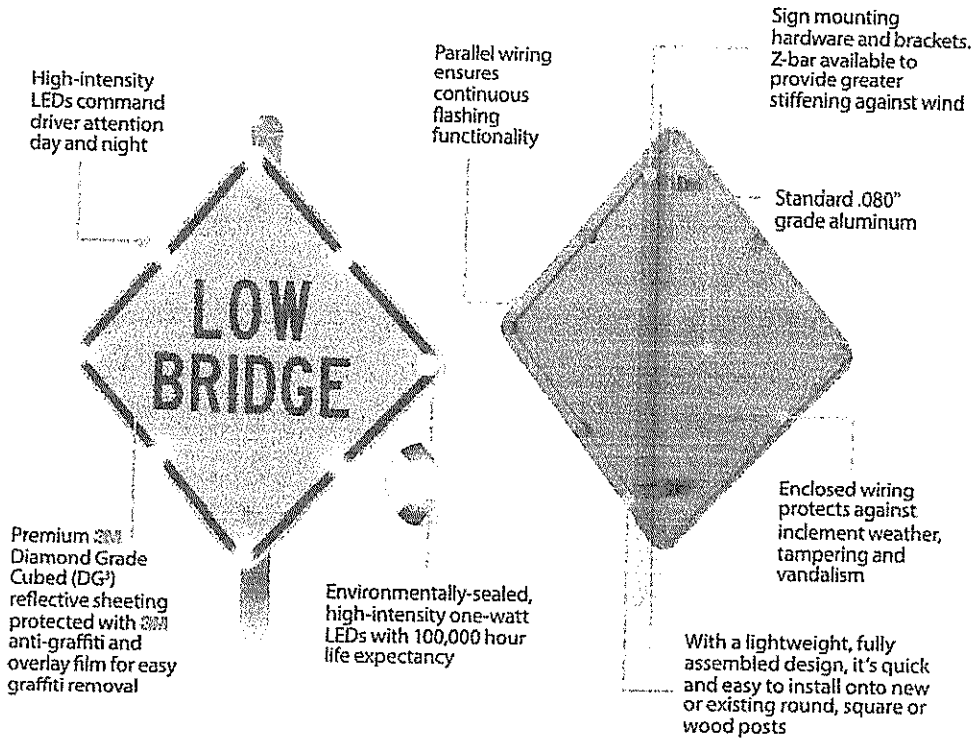
3 BLINKERBEAM<sup>®</sup>  
RECEIVER RADIO(S)  
activate LED-enhanced  
warning alerts



# LED-ENHANCED WARNING ALERTS

## BLINKERSIGN® FLASHING LED SIGNS

BlinkerSign® Flashing LED signs are edge-lit signs engineered to capture drivers' attention and decrease the number of overheight collisions. Sign legends can be designed to customer preference.



### MUTCD-COMPLIANT

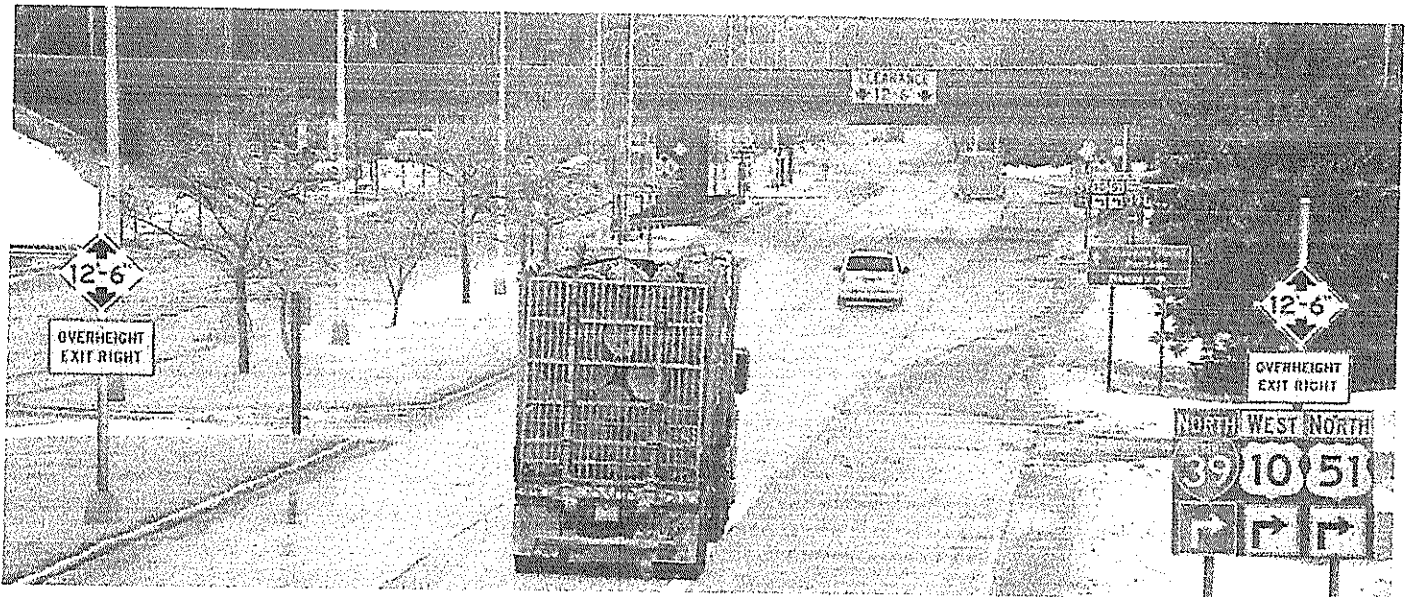
- Each BlinkerSign® is MUTCD-compliant and flashes in accordance with MUTCD section 2A.07.

### HIGH QUALITY, MADE IN THE USA

- Manufactured in Brown Deer, Wisconsin, each BlinkerSign® is engineered to withstand the harshest environmental conditions.

### VARIABLE DIMMING

- LEDs automatically dim based upon ambient light – maintaining optimal LED output and extending battery life.



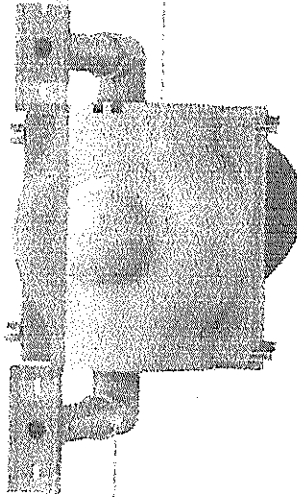
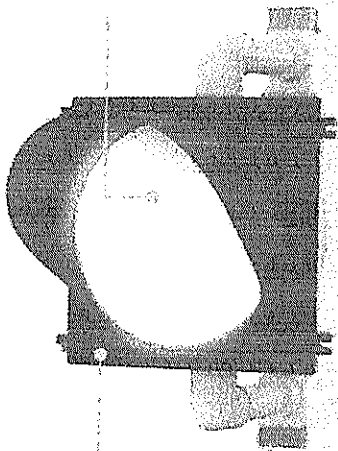
# LED-ENHANCED WARNING ALERTS

## BLINKERBEACON™ FLASHING LED BEACONS

BlinkerBeacon™ Flashing LED Beacons provide drivers real-time warning when their vehicle won't clear the structure ahead.

12" round amber LED  
with 100,000 hours  
life expectancy

Yellow or black  
polycarbonate LED  
housing



Black polycarbonate cut  
visor and door standard.  
Yellow available upon  
request

Aluminum mounting  
assembly painted to  
match LED housing

### MUTCD-COMPLIANT

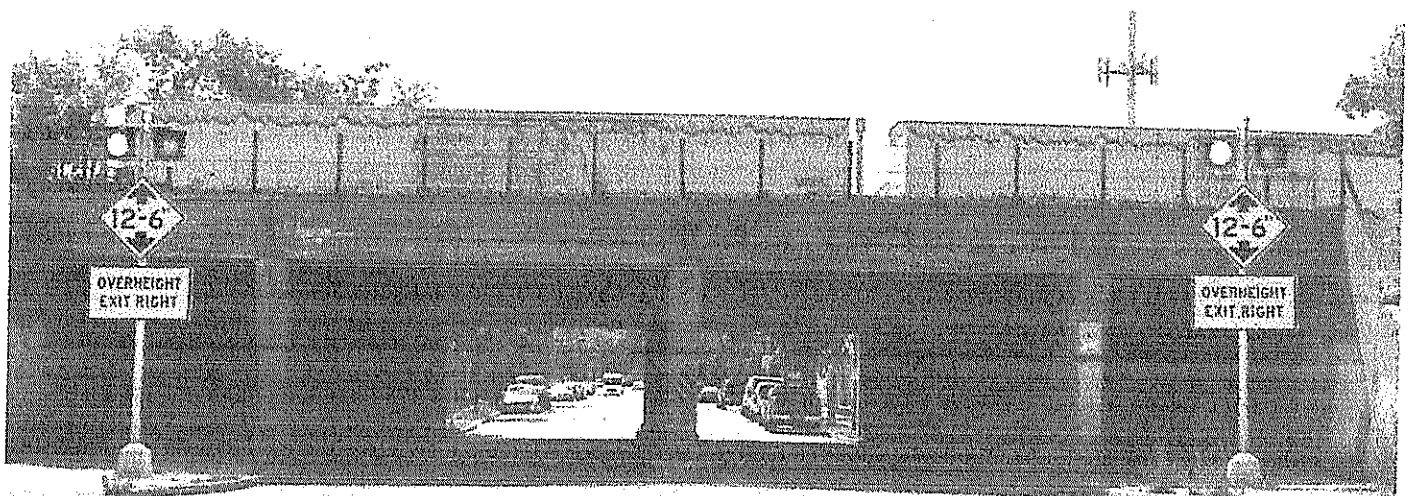
- Each BlinkerBeacon™ can flash in accordance with MUTCD section 4L.03.

### VARIABLE DIMMING

- LEDs automatically dim based upon ambient light - maintaining optimal LED output and extending battery life.

### AVAILABLE OPTIONS

- 8" or 12" LED modules.
- ITE-compliant 12V power options.
- Cut visor standard, tunnel visor available.

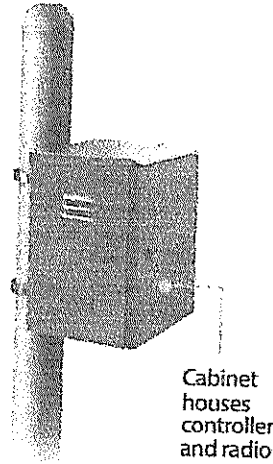


# POWER AND CONTROL OPTIONS

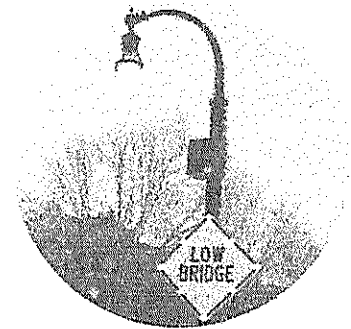
## FLEX POWER

Flex Power options provide flexible system configuration for multiple applications and power requirements while allowing easy access to control cabinets. Any TAPCO system can be designed to fit your power or environmental need.

### AC POWER OPTIONS



120VAC



### STREETLIGHT POWER

Tap into existing infrastructure to power TAPCO systems.

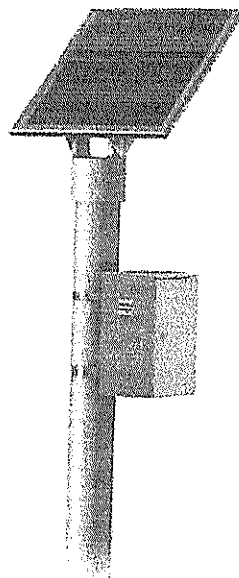
### POPULAR SOLAR PACKAGES

TAPCO offers many solar packages to choose from, some of the most popular are listed below with other options available upon request.



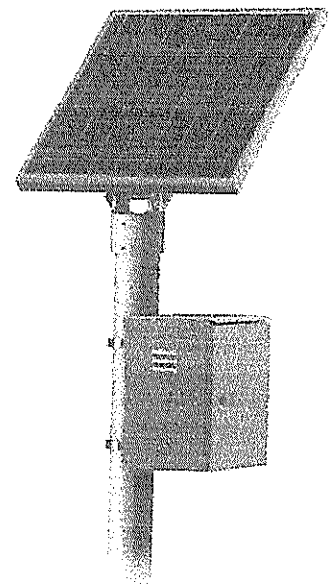
**13-watt solar panel**  
**14Ah battery capacity**

\* Compatible with warning alerts only. Sensors require additional power for continuous operation.



**26-watt solar panel**  
**27Ah battery capacity**

\* Compatible with warning alerts only. Sensors require additional power for continuous operation.

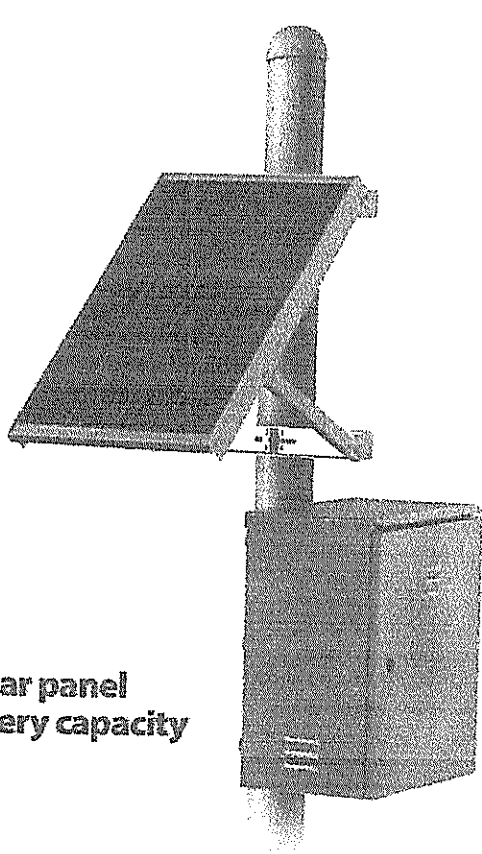


**55-watt solar panel**  
**48Ah battery capacity**

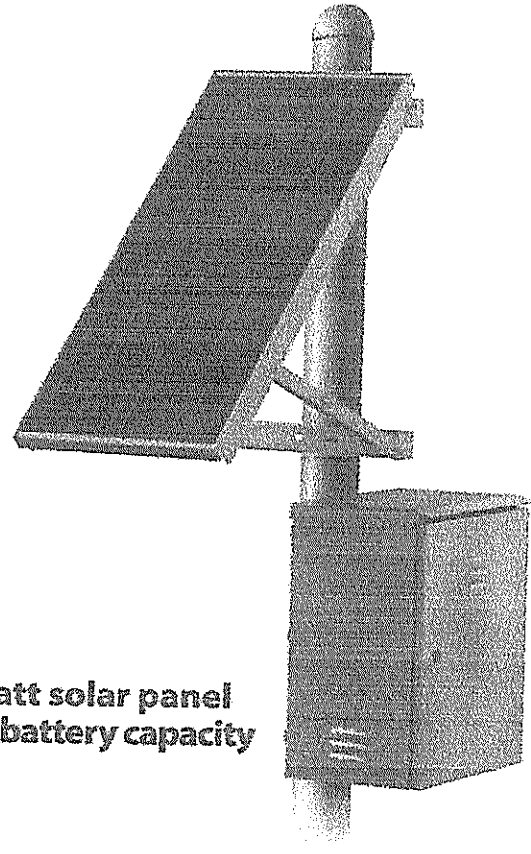


# POWER AND CONTROL OPTIONS

## FLEX POWER



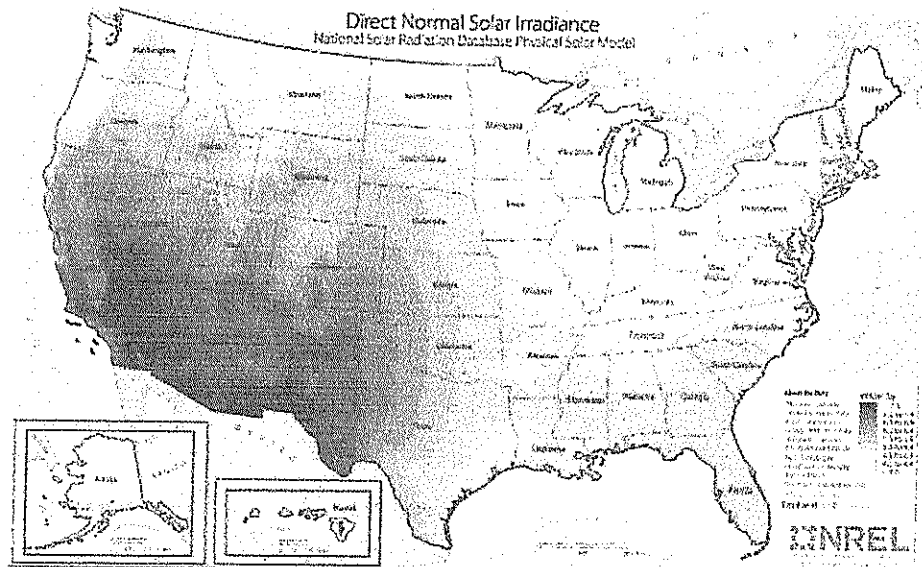
**85-watt solar panel**  
**105Ah battery capacity**



**130-watt solar panel**  
**105Ah battery capacity**

### SOLAR REQUIREMENTS

Critical solar factors such as direct normal irradiance and global horizontal irradiance vary depending on system location. To ensure the right power configuration, we conduct solar calculations to meet desired system power needs.



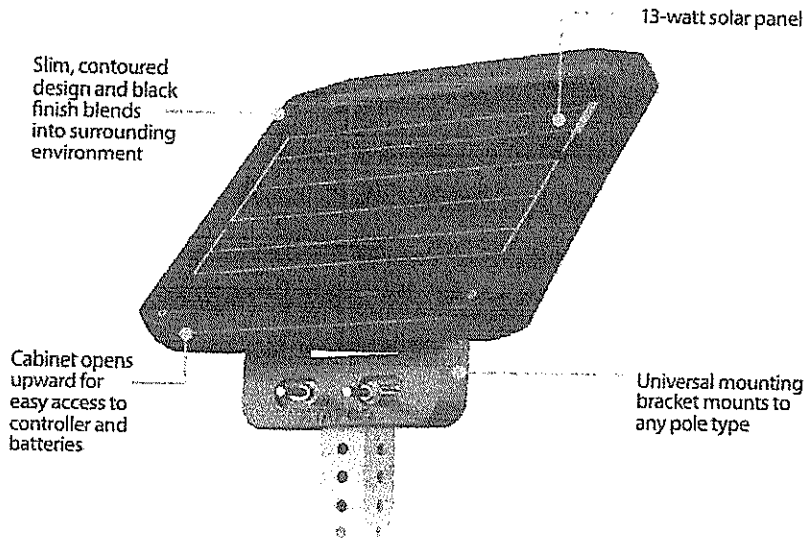
Call us today for a free solar consultation! (800) 236-0112



# POWER AND CONTROL OPTIONS

## SELF-CONTAINED SOLAR CABINETS

Uniquely designed using durable polycarbonate, TAPCO's new 13-Watt Self-Contained Solar Cabinet is a lightweight option that can power warning alerts.



### INCREASED AUTONOMY

- Up to 28Ah of battery power delivers autonomy up to 30 days.

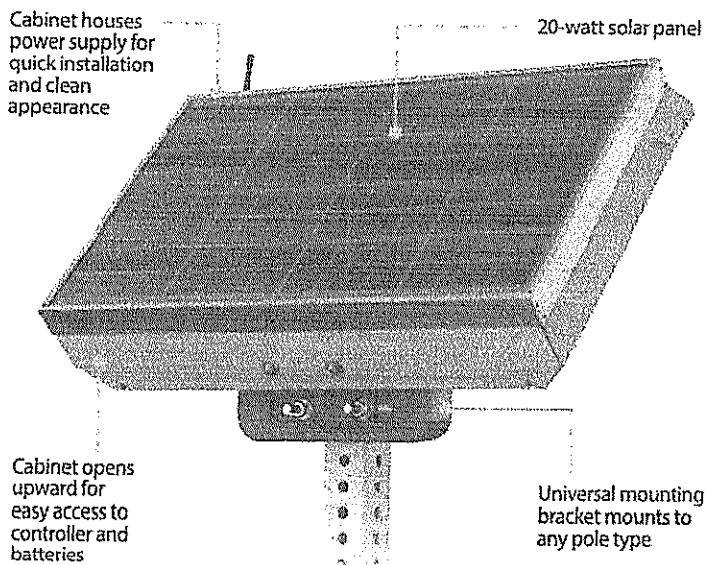
### COMPATIBLE

- Supports BlinkerSign® and BlinkerBeacon™ warning alerts without reducing LED and system performance.

### EASY TO INSTALL

- Weighs one-third as much as traditional cabinets for one-person installation.

TAPCO's 20-Watt Self-Contained Solar Cabinet provides 44Ah of battery power for warning alerts in a discreet, powder-coated aluminum housing.



### INCREASED VOLTAGE

- The 12-volt system is engineered to power a larger assortment of warning alert options.

### EASE OF ACCESS

- Cabinet door opens up for easy access and serviceability.

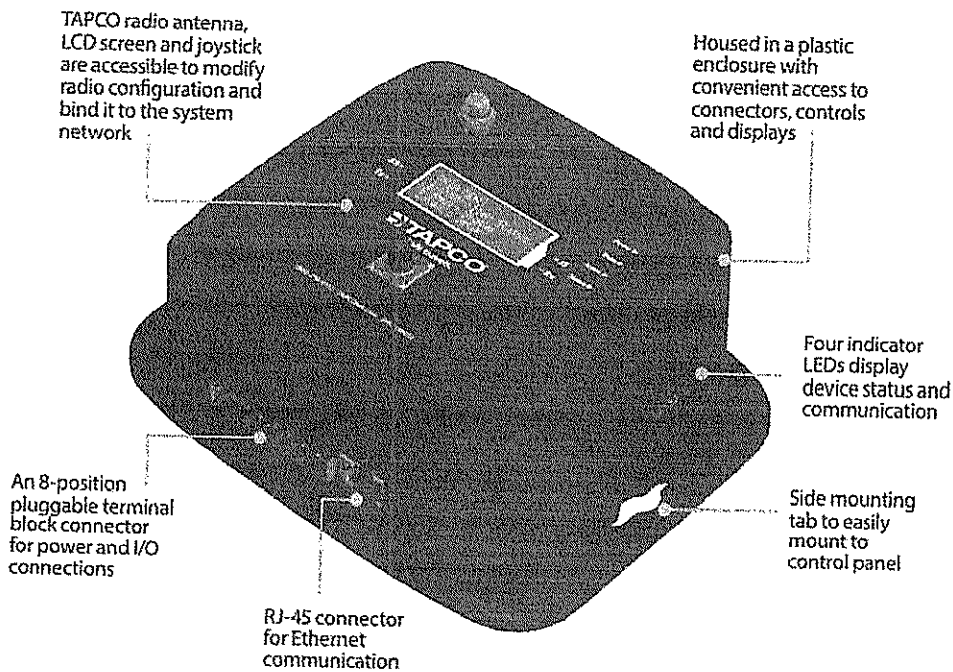
### COMPACT DESIGN

- Easily attaches onto new or existing posts and poles.

# ENHANCEMENTS

## CONNECTED VEHICLE INTERFACE

Add another layer of safety to your overheight solution with the Connected Vehicle Interface (CVI) - an Ethernet interface for TAPCO Overheight Warning Systems to connect with and communicate information to connected vehicle infrastructure, such as typical Road Side Units (RSU).



### IN-VEHICLE ALERTS

- Upon system activation, connected vehicles receive notifications through dashboard displays and other onboard devices.

### NETWORK AGNOSTIC

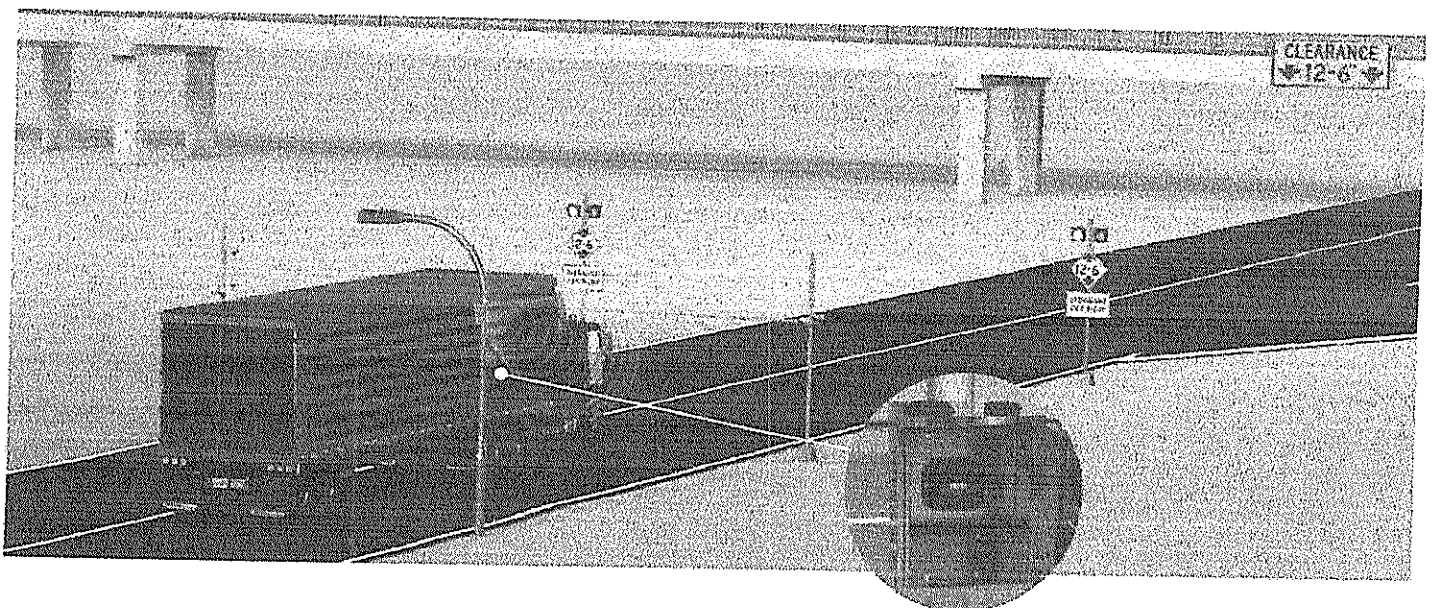
- Transmits data via Dedicated Short-Range Communication (DSRC), or cellular RSUs.

### ATMS INTEGRATION

- Connects with Advanced Traffic Management Systems to provide traffic managers with actionable system data.

### MODULAR

- Can be added to existing or new TAPCO Overheight Warning Systems.



# SMART CITY SOFTWARE

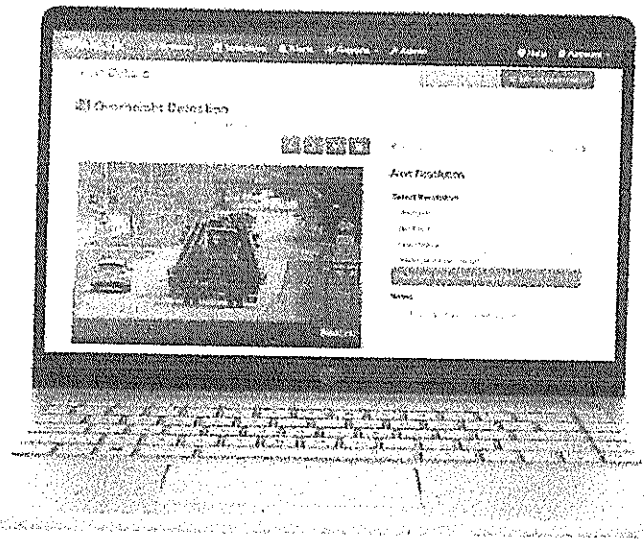
## BLINKLINK<sup>®</sup> POWERED BY TAPCO

### INTELLIGENT WARNING SYSTEM MONITORING FOR SMART CITY INFRASTRUCTURE

BlinkLink<sup>®</sup> powered by TAPCO is an easy-to-use, cloud-based software application for agencies to remotely manage and monitor their Intelligent Warning Systems.

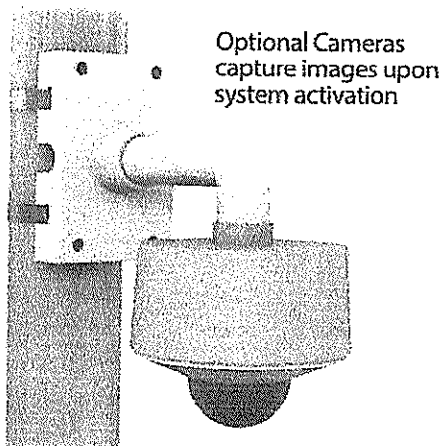
Securely connected through reliable cellular networks, BlinkLink<sup>®</sup> collects real-time data and sends voice, email and SMS notifications to predetermined recipients.

- Access on any web-enabled device
- Easily program and view the status of every system
- Analyze system activation trends and gain insight to problem areas
- Generate custom activation reports
- Keep your whole team informed through activation notifications
- Add visual confirmation to activation notifications through optional enhancements

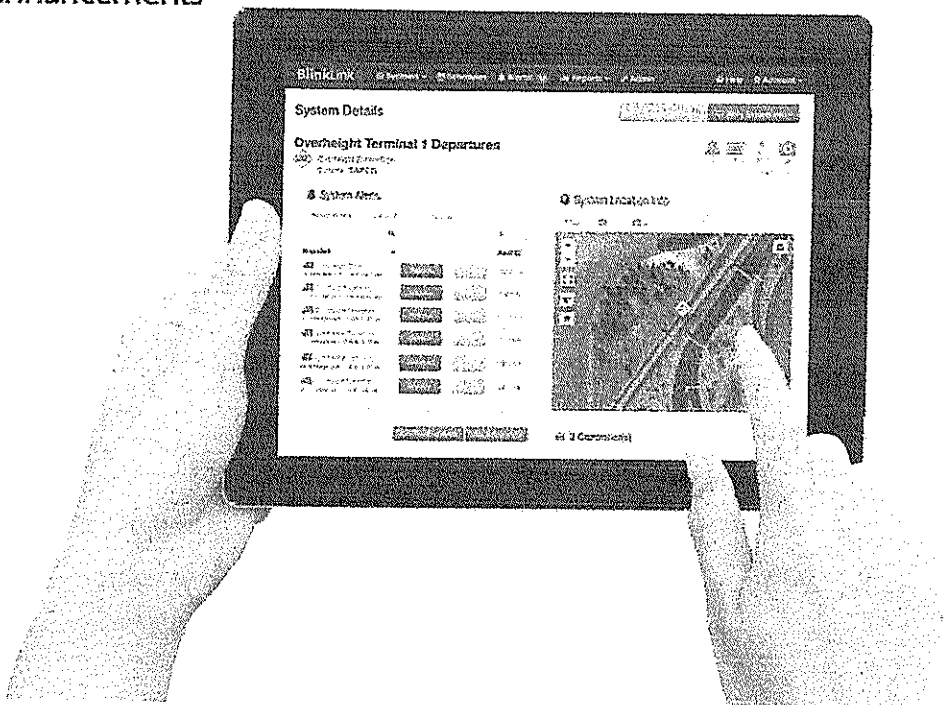


Collect real-time data including activation trends

Remotely review the health of the system and manage overheight detection alerts



Optional Cameras capture images upon system activation

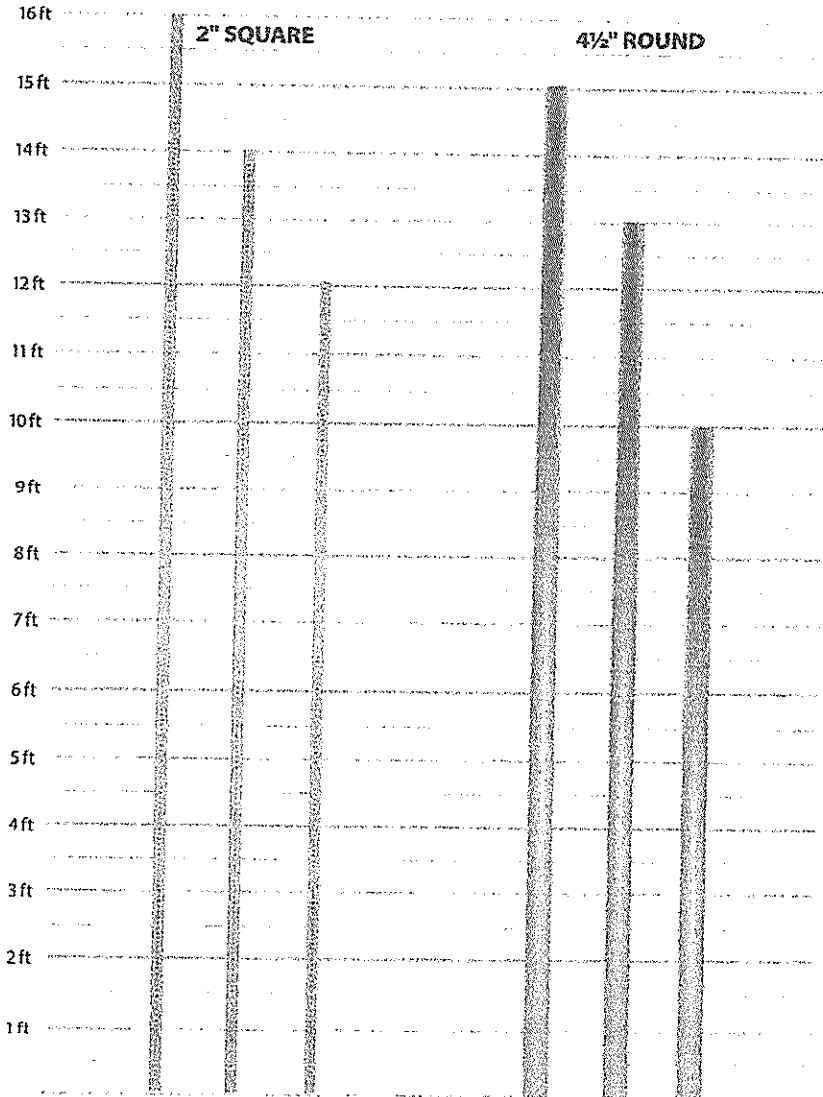


# COMMON POLE KITS

## POLES & BREAKAWAY ANCHORS

### COMMON POLE KITS

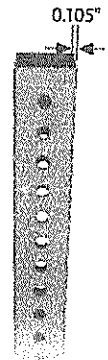
Pole configuration plays a crucial role in the design of your Overheight Warning System. Below are some of our most popular options.



### 2" x 2" Square Post Kits

- Accommodates warning alerts only
- Include: post height of choice, sleeve and assembly hardware
- Sign brackets and anchor sold separately

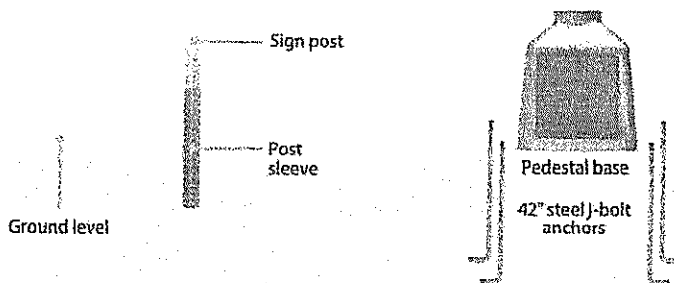
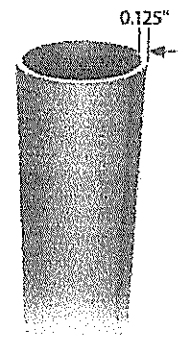
HEIGHT	PART NUMBER
12 ft	114401K
14 ft	138313
16 ft	138314



### 4 1/2" OD Round Pole Kits

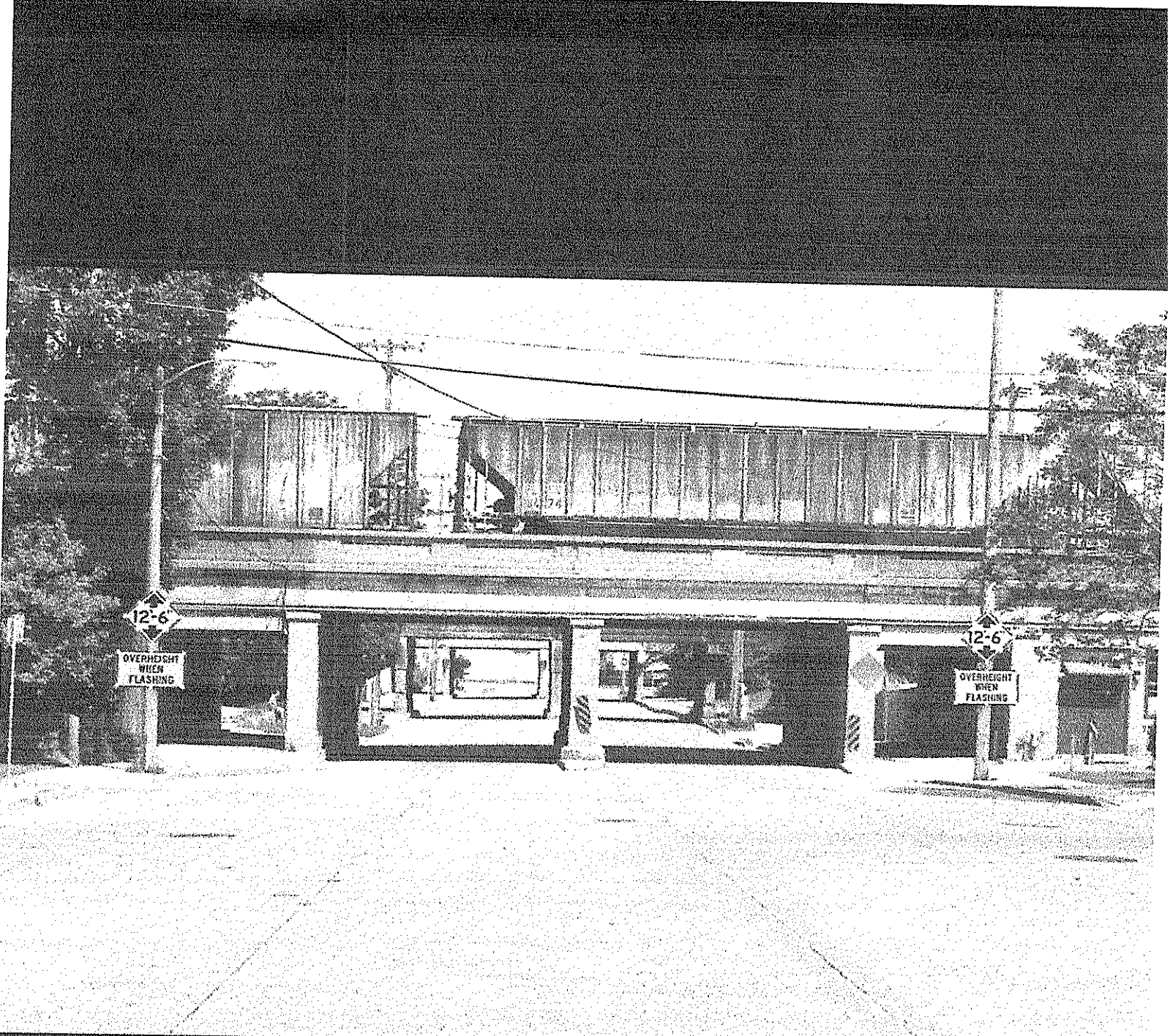
- Accommodates warning alerts and sensors
- Include: pole height of choice, pedestal base, 42" steel j-bolt anchors and assembly hardware
- 18" steel j-bolt anchors available
- Sign brackets sold separately

HEIGHT	PART NUMBER
10 ft	107889
13 ft	101919
15 ft	101920



Additional poles, anchors and mounting options are available dependent upon weight loads, including 2 3/4", 2 1/2" and wood posts.





**TAPCO**  
Safe travels.

(800) 236-0112

TAPCO.net.com