

# IMPROVING ROAD SAFETY WITH CONNECTED RADAR SPEED DISPLAYS AND DATA



**ALL TRAFFIC**  
SOLUTIONS



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## Introduction

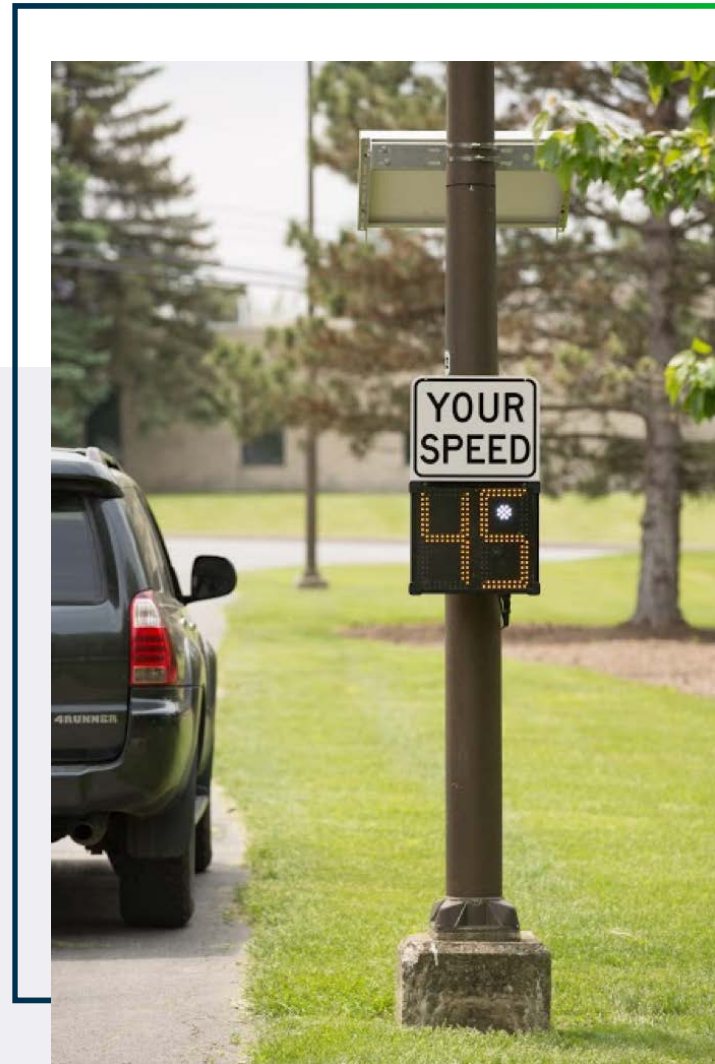
If your community is growing but your budget is not, your resources are probably being stretched to the limit. A growing population usually means an expanding infrastructure and more businesses moving to your area. With more vehicles on the roads, how can you enforce speed limits and keep roads safe when you're expected to do more and more with less?

All Traffic Solutions customers are finding success by making our portable web-enabled radar speed displays an important component of their traffic safety initiatives. This white paper talks about three of the benefits you get with these versatile traffic devices, and how to deploy them for maximum results in your community.

### Reduce Speed-Related Complaint Volume

Most ATS customers we speak with say that the majority of speed-related complaints they receive prove to be largely unfounded. More often than not, it's a perception problem. The resident may observe that cars are whizzing past their house in large numbers, but when an officer is deployed to the location to take Lidar readings, what they discover is that the percentage of speeding is quite low, or that there's only an issue at specific days or times.

Having the officer park their car for the better part of a week to come to that conclusion isn't proactive, it's reactive and costly, and it's taking them away from other important police work. But when another complaint call is received, they're assigned to the next location to go through the same process all over again.



A Shield 12 radar speed display with solar panel shows drivers their speed as they pass by the sign.

# Improving Road Safety With Connected Radar Speed Displays and Data

Radar speed displays are ideal for clearing speeding complaints.

Simply place a **Shield** or **SpeedAlert** at the location, set the device to stealth mode and collect speeds without showing drivers that you're monitoring traffic. This way you capture "true" vehicle speeds, not those of drivers on good behavior.

Then run an **Extended Speed Summary Report** in **TrafficCloud™**. If the data shows that the majority of vehicles obey the speed limit then it's actually a perception issue on the part of residents, and you've just cleared a complaint without tying up a resource. If the data shows that there is a problem, you can take additional steps to calm traffic in the area.

Some of the reports you can run in seconds in TrafficCloud

### Speed Effectiveness Report

Generated by Marketing Demo from All Traffic Solutions Traffic Study Account on Aug 31, 20- at 1:20:16 PM  
 Speed Bins: Size 0, Range 21 to 100  
 Time of Day: 0:00 to 23:59  
 Dates: 8/23/20- to 8/29/20-  
 Site: Beside Mt Nittany United Methodist Church, NB  
 High Risk Threshold: Speed Limit + 10

Date/Time Range	Spd LI-mit	Sign Mode	Compliant Average Final Speed	Compliant Change In Speed	Low Risk Average Final Speed	Low Risk Change In Speed	Medium Risk Average Final Speed	Medium Risk Change In Speed	High Risk Average Final Speed	High Risk Change In Speed
Sunday 35	Speed Display	35	30.4	-1.1	37.9	-0.3	30.0	0.0	35.0	0.0
Monday 35	Speed Display	35	30.4	-1.2	38.4	0.8	30.0	0.0	35.0	0.0
Tuesday 35	Speed Display	35	30.0	-1.6	36.7	-1.2	37.5	-1.0	30.0	0.0
Wednesday 35	Speed Display	35	30.3	-1.0	38.4	-0.4	39.7	0.6	36.5	0.0
Thursday 35	Speed Display	35	30.7	-0.9	38.6	-0.7	37.6	-0.3	30.0	0.0
Friday 35	Speed Display	35	30.4	-0.7	38.5	-0.9	37.9	1.4	31.6	0.0
Saturday 35	Speed Display	35	30.3	-0.3	38.6	-0.5	38.3	-0.3	30.0	0.0

**Changes in Speed by Risk Threshold**

### Extended Speed Summary Report

Generated by Marketing Demo from All Traffic Solutions Traffic Study Account on Aug 31, 20- at 2:57:24 PM  
 Site: Beside Mt Nittany United Methodist Church, NB  
 Time of Day: 0:00 to 23:59  
 Dates: 8/24/20- to 8/30/20-

**Overall Summary**  
 Total Days of Data: 7  
 Speed Limit: 35  
 Average Speed: 31.05  
 50th Percentile Speed: 30.50  
 85th Percentile Speed: 35.86  
 Pace Speed Range: 26 to 36

Minimum Speed: 5  
 Maximum Speed: 57  
 Display Status: Displayed Vehicle Speeds  
 Average Volume per Day: 2235.0  
 Total Volume: 15645

Hours	Sign Mode	Speed Limit	Total # Vehicles	Total # Violations	% Violations	Avg # Vehicles	Avg # Violations	Minimum Speed Recorded	Maximum Speed Recorded	Avg Spd	50th Spd	85th Spd	Sign Effective %
0:00	Speed	35	54.0	1.0	1.9%	6.8	0.1	9.0	47.0	31.0	29.3	35.0	95.5%
1:00	Speed	35	32.0	1.0	1.9%	8.7	0.2	22.0	46.0	32.0	30.4	34.4	70.4%
2:00	Speed	35	25.0	2.0	8.0%	3.6	0.3	26.0	46.0	36.7	35.6	39.7	63.7%
3:00	Speed	35	20.0	0.0	0.0%	3.3	0.0	18.0	44.0	30.8	29.3	34.5	65.0%
4:00	Speed	35	31.0	2.0	3.9%	8.5	0.3	18.0	50.0	32.2	30.3	35.6	68.6%

**Volumes by Compliance**

**Sign Effectiveness**

### Enforcement Priorities Report

Generated by Marketing Demo from All Traffic Solutions Traffic Study Account on Aug 31, 20- at 1:36:38 PM  
 Speed Bins: Size 0, Range 1 to 100  
 Rank Results By: 85% Speed  
 Site: Beside Mt Nittany United Methodist Church, NB  
 Violation Threshold:

#	Site	Day of Week	Time	Speed Limit	Average Speed	Average Violator Speed	%
1	Beside Mt Nittany United Methodist	Saturday	12:00 - 13:00	35	32.0	47.0	40%
2	Beside Mt Nittany United Methodist	Tuesday	5:00 - 6:00	35	32.0	0.0	39%
3	Beside Mt Nittany United Methodist	Saturday	13:00 - 14:00	35	33.5	31.0	39%
4	Beside Mt Nittany United Methodist	Sunday	17:00 - 18:00	35	31.0	0.0	38%
5	Beside Mt Nittany United Methodist	Monday	6:00 - 7:00	35	33.0	0.0	38%
6	Beside Mt Nittany United Methodist	Monday	23:00 - 24:00	35	33.0	49.0	38%
7	Beside Mt Nittany United Methodist	Tuesday	23:00 - 24:00	35	32.0	48.0	38%
8	Beside Mt Nittany United Methodist	Wednesday	14:00 - 15:00	35	31.0	48.0	38%
9	Beside Mt Nittany United Methodist	Wednesday	21:00 - 22:00	35	32.0	47.0	38%
10	Beside Mt Nittany United Methodist	Thursday	8:00 - 9:00	35	31.0	46.0	38%
11	Beside Mt Nittany United Methodist	Thursday	9:00 - 10:00	35	32.0	48.0	38%
12	Beside Mt Nittany United Methodist	Thursday	18:00 - 19:00	35	33.0	0.0	38%

### Compliance And Risk Report

Generated by Marketing Demo from All Traffic Solutions Traffic Study Account on Aug 31, 20- at 1:35:04 PM  
 Speed Bins: Size 0, Range 1 to 100  
 Time View: By Hour (Avg Volumes)  
 Site: Beside Mt Nittany United Methodist Church, NB  
 High Risk Threshold: Speed Limit + 10

Date/Time Range	Speed Limit	Mode	Compliant	Low Risk	Medium Risk	High Risk	Total Num Vehicles
0:00	35	Speed Display	5	2	0	0	7
1:00	35	Speed Display	2	0	0	0	9
2:00	35	Speed Display	2	0	0	0	4
3:00	35	Speed Display	1	1	0	0	3
4:00	35	Speed Display	2	2	0	0	9
5:00	35	Speed Display	0	2	0	0	12
6:00	35	Speed Display	10	5	0	0	38
7:00	35	Speed Display	15	19	1	0	114
8:00	35	Speed Display	17	19	1	0	140
9:00	35	Speed Display	10	23	1	0	127

**TIP:**

*SpeedAlert 18 and SpeedAlert 24 radar speed displays can be programmed to display both driver speed and speed-dependent messages for added reinforcement.*

## Isolate Problem Time Periods with Real-time Speed Data

Just as drivers tend to slow down when they see an illuminated radar speed display, the problem with stationing an officer with Lidar to record speeds is that when drivers see the officer they'll hit the brakes, so you're not getting an accurate picture of the speeding issue. And since your officer can't be at that site 24/7, how will you know for certain what hours or days of the week is the issue most critical?

You can deploy a Shield 12 or Shield 15 radar speed sign in stealth mode at the location so that it captures data but doesn't display speeds. Drivers don't know that the sign is operational so they don't alter their speed as they pass.

The sign will capture up to 10 days of accurate speed and volume data and produce a documented report of that 10-day time period that they can slice and dice to understand what's going on. You can download the report as a PDF to share with the complainant, share with management, bring to your next town council meeting or post on your website. If you see that there is indeed a speeding problem, switch the sign to active mode so that it displays each driver's speed as they pass. Oftentimes drivers don't realize they're surpassing the speed limit, and seeing their speed displayed is a jolting reminder to pay attention and slow down.

**TIP:**

*The best way to ensure lasting results and reinforce compliance is to mount your sign on a pole (it takes one person about five minutes) and use solar power so it's always operational.*

You can run a range of reports in literally seconds to understand traffic volume, high/low speeds, average speed, 85th percentile, etc. for a week, day, day part or view a comparison. There's a really helpful Enforcement Priorities report that combines all your locations and shows where and when there are issues at each location. Law enforcement can use this data to prioritize their resources so that problem locations are monitored at the right time.

### Lasting Speed Reduction in the Community

Radar speed displays have been proven to reduce speeds and continue to calm traffic months after the sign has been installed. In contrast, other traffic calming methods, such as speed tables and speed humps, can encourage speeding between units because some residents actually speed up in between each one to get to the next.

According to a study by the [Texas Transportation Institute](#), there was an average reduction in vehicle speed of as much as nine miles per hour a full four months after a radar speed sign was installed. Studies also suggest that after a radar speed sign is moved to a different location local traffic is still calmer months later because the sign had a positive effect on behavior, which is the main reason for traffic enforcement in the first place. All Traffic Solutions customers report the same kinds of results, especially when the sign is installed, even temporarily, on a neighborhood road where residents travel often. When made aware that the police department is watching the area, driver behavior is lasting.

# Conclusion



At All Traffic Solutions, we hear success stories every day from our customers in law enforcement, public works departments, college campuses, corporate facilities and so on, many of whom call to purchase additional signs. They like the portability and the remote access that our radar speed displays give them. They see a reduced volume of complaints, they have traffic concrete data when they need it, and they can address issues effectively without utilizing additional resources.

Call 866.366.6602 or email us at [sales@alltrafficsolutions.com](mailto:sales@alltrafficsolutions.com).



TraffiCloud leverages our patented technology (US Patents 8,417,442; 8,755,990; 9,070,287; 9,411,893) to deliver unique cloud-based management, features and functionality.

All Traffic Solutions delivers cloud-based traffic management solutions and products for transportation and traffic agencies, municipalities and private organizations of all sizes.

Our innovative TraffiCloud™ traffic management platform is changing the way communities solve their most complex traffic, transportation and parking challenges by allowing them to manage all their traffic equipment remotely, as well as leverage data to increase traffic safety, streamline their operations and achieve lasting results.

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