<table>
<tr><td rowspan="2">Sponsor</td><td rowspan="2">Nominations <u>must</u> be submitted by an AASHTO member DOT willing to help promote the technology.</td><td colspan="3">1. Sponsoring State DOT: Florida DOT</td></tr>
</table>

Sponsor — *Nominations __must__ be submitted by an AASHTO member DOT willing to help promote the technology.*	1. Sponsoring State DOT: Florida DOT	
	2. Name: Craig Wilson	
	Title: Weigh Scale Facility Program Manager	
	Mailing Address: Woodcrest Office Park, Buiding K, 325 John Knox Road	
	City: Tallahassee State: Fl Zip Code: 32303	
	E-mail: craig.wilson@dot.state.fl.us Phone: 850-245-7932 Fax: 850-245-7901	
	3. Date Submitted: 09/10/2008	
	4. Is the Sponsoring State DOT willing to promote this technology to other states by participating on a Lead States Team supported by the AASHTO Technology Implementation Group? Please check one: ☒ Yes ☐ No	

Technology Description (10 points)

The term "technology" may include processes, products, techniques, procedures, and practices.

5. Name the technology: VDIM Vehichle Dimension In Motion

6. Please describe the technology: Technology measures length, width and heigth of Commercial Motor Vehicles at ramp WIM spededs of 50 MPH by utilizing lasar.

7. If appropriate, please attach photographs, diagrams, or other images illustrating the appearance or functionality of the technology. (If electronic, please provide a separate file.)
Please check one: ☒ Yes, images are attached.   ☐ No images are attached.

State of Development (30 points)

Technologies must be successfully deployed in at least one State DOT. The TIG selection process will favor technologies that have advanced beyond the research stage, at least to the pilot deployment stage, and preferably into routine use.

8. Please describe the history of the technology's development. Product had been in use at UPS and FedEx sorting facilities for determining the loading and charges as the containers (boxes) come down the converyor belt. During our UCF "ITS Commercial Vehicle Clearance Station" research project we invited any and all partiipants to come and deploy any technologies that we deemed would benefit and meet the specification for a system utilizing non-intrusive technologies. CargoScan which is a subsidiarary of Mettler Toledo requested to participate in order to see if they could take this to a much larger and faster environment the ramp WIM's throughout Florida.

9. For how long and in approximately how many applications has your State DOT used this technology? Technology has been utilized since first install and lazer settings were performed back in February of 2004 which is 3 years and 6 months. Technology has been utilized when system was not undergoing an R&D Phase at the Flagler I-95 weigh station ever since deployment. R&D continued to perfect system to enable it to correctly measure length and that phase was concluded and Acceptance Test was performed in May 2008 and a 95% confidence level was reached with tolerances of <or> than 3 inches..

10. What additional development is necessary to enable routine deployment of the technology? NONE

11. Have other organizations used this technology? Please check one: ☒ Yes   ☐ No
If so, please list organizations and contacts.

Organization	Name	Phone	E-mail
Alaska DOT	Cliff Douglas	907-465-1799	cliff_douglas@dot.state.ak.us

Payoff Potential (30 points)	*Payoff is defined as the combination of broad applicability and significant benefit or advantage over other currently available technologies.*	12. How does the technology meet customer or stakeholder needs in your State DOT or other organizations that have used it? It meets the State of Florida needs by sorting oversized and permit vehicles to scale 2 which is located on the left side of weigh station and when weight inspectors check permit and do measurements they are away from scale 1 which has a bypass lane beside it where trucks are traveling a minimum of 45 MPH. It also serves as protection for entire overpass and bridge infrastructure throughout the State of Florida by detecting over height trucks and/or possible cargo. Alaska utilizes at the Port of Vadez ferry terminal for ferry loading purposes which is how they determine charges (by weight and dimensions).
		13. What type and scale of benefits has your DOT realized from using this technology? Include cost savings, safety improvements, transportation efficiency or effectiveness, environmental benefits, or any other advantages over other existing technologies. Safety improvements are that weight inspectors will not be measuring and interfacing with driver while trucks in bypass lane are traveling at a minimum of 45 MPH. FDOT hopes to incorporate in furture Smart Roadside deployments for possibly checking permits remotely by integrating with either LPR or possilbe chip (RFID) identification and checking against database at permit office.
		14. Please describe the potential extent of implementation in terms of geography, organization type (including other branches of government and private industry) and size, or other relevant factors. How broadly might the technology be deployed? Technology could be used at all point of entry borders of States to protect all overpass and bridge structure.
Market Readiness (30 points)	*The TIG selection process will favor technologies that can be adopted with a reasonable amount of effort and cost, commensurate with the payoff potential.*	15. What actions would another organization need to take to adopt this technology? Procuring and purchasing, The technology exist today and is in design package for 2 weigh stations currently being constructed in the State of Florida.
		16. What is the estimated cost, effort, and length of time required to deploy the technology in another organization? The cost of infrastructure would be dependent on what type of wind load requiements that exist for that particular area for possible gantry or bridge mounting. Estimate for Florida is in the $125,000.00 dollar range and we already have communication links in place from WIM cabinet back to the weigh scale facility via fiber and there data is integrated with WIM computer for sorting O/S or O/W trucks..
		17. What resources—such as technical specifications, training materials, and user guides—are already available to assist deployment? User manual is in development at this time. Specifications can be received by contacting CargoScan or Mettler Toledo.
		18. What organizations currently supply and provide technical support for the technology? CargoScan a subsidairary of Mettler Toledo.
		19. Please describe any legal, environmental, social, intellectual property, or other barriers that might affect ease of implementation. Lazer is patented proprieatary system which is a class 1 unconditionally safe in the target zone and complies with FDA CDHR1040 and IEC 60825.
Submit to AASHTO Contact	***Keith Platte*** **Phone: 202.624.7830** **Fax: 202.624.5469** **kplatte@aashto.org**	***American Association of State Highway & Transportation Officials*** ***444 North Capitol Street N.W., Suite 249*** ***Washington, DC 20001***

Vehicle sequence number: −2147483648
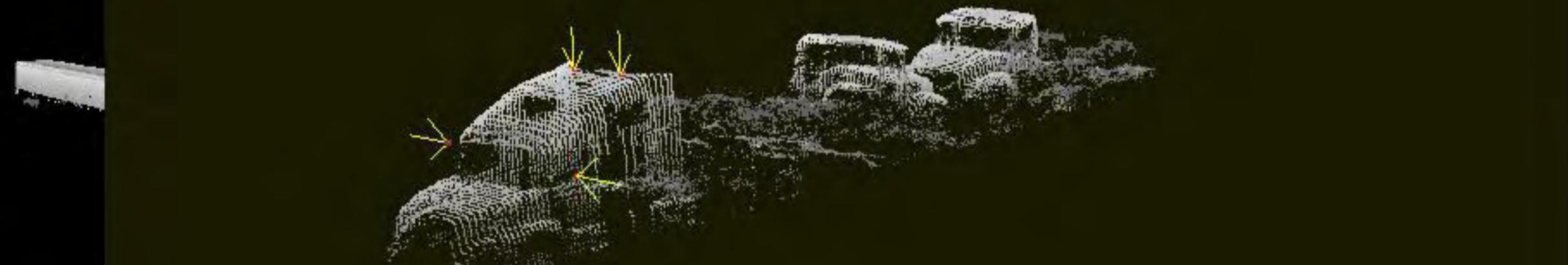
Width 8 ft 10 in
Height 12 ft 9 in
Length 65 ft 2 in
43.67 mph

Wed 14 Jun 00:28:24

−2147483648

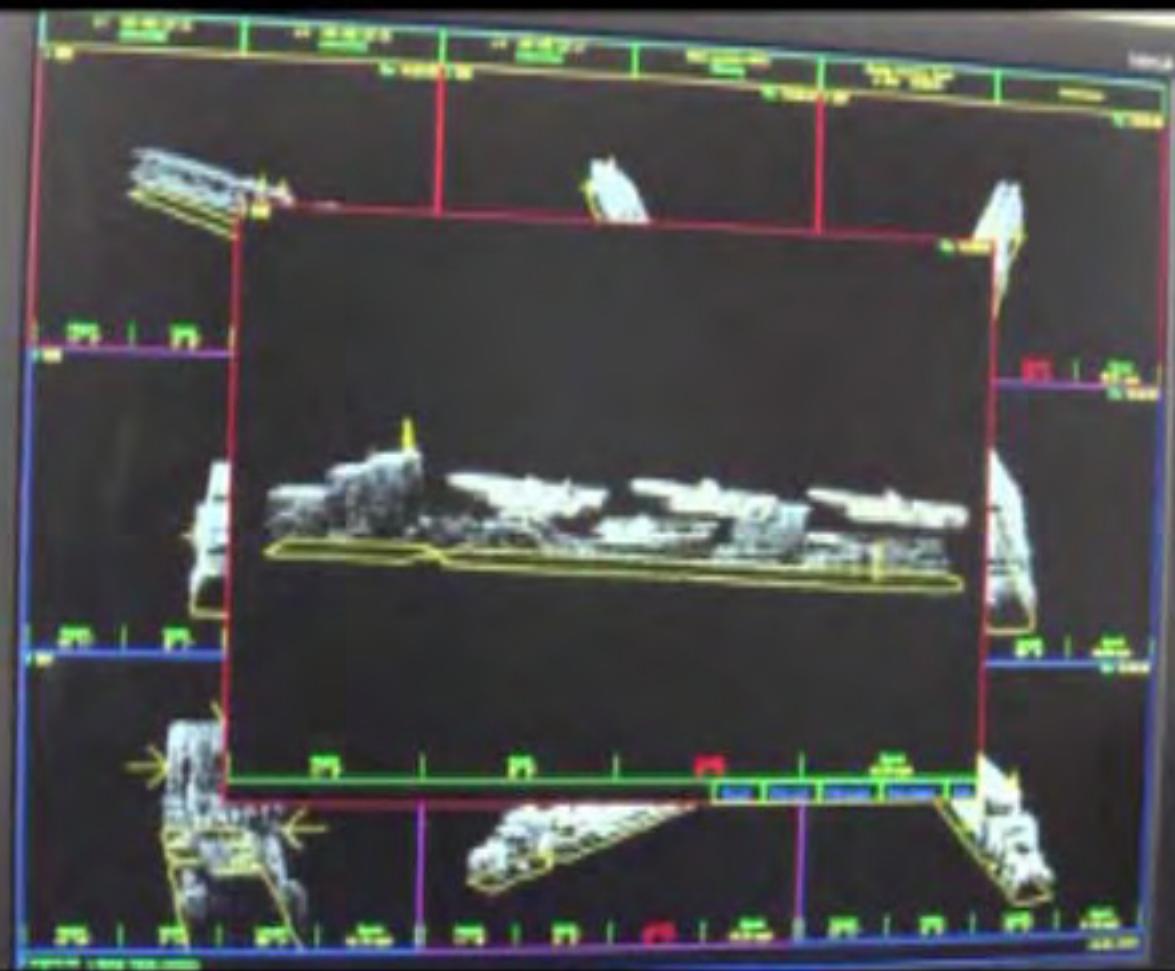8 ft 10 in
13 ft 2 in
65 ft 8 in
35.95 mph

Wed 14 Jun 00:28:36

−2147483648

8 ft 7 in
13 ft 0 in
79 ft 4 in
Speed 39.23 mph

Time of record Wed 14 Jun 00:29:13

Images

Record	Photo	Laser	Video
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2	033108Images\IMGA0023.JPG	033108Images\P1010002.JPG	033108Images\2.wmv
3	033108Images\IMGA0024.JPG	033108Images\P1010003.JPG	033108Images\3.wmv
4	033108Images\IMGA0025.JPG	033108Images\P1010007.JPG	033108Images\4.wmv
5	033108Images\IMGA0026.JPG	033108Images\P1010008.JPG	033108Images\5.wmv
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7	033108Images\IMGA0028.JPG	033108Images\P1010010.JPG	033108Images\7.wmv
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50	033108Images\IMGA0076.JPG	033108Images\P1010056.JPG	033108Images\50.wmv

			Laser Reading					C
Speed	Length Feet	Length Inch	Width Feet	Width Inch	Height Feet	Height Inch	Length	
43	8	8	1	10	9		524	
71	8	8	7	13	5		860	
71	10	11	2	12	11		862	
68	1	10	7	10	6		817	
73	10	8	7	13	5		886	
69	3	8	7	13	9		831	
73	0	8	6	13	8		876	
61	5	8	0	11	3		737	
69	8	8	4	12	1		836	
72	5	8	7	13	7		869	
74	5	8	1	13	0		893	
73	0	8	8	13	5		876	
44	11	8	1	10	8		539	
73	2	8	5	13	9		878	
69	0	8	4	10	5		828	
68	0	8	5	12	11		816	
62	7	8	8	13	1		751	
34	3	8	0	12	11		411	
87	0	8	5	13	0		1044	
87	2	9	1	11	6		1046	
64	6	8	2	6	11		774	
62	2	8	1	12	9		746	
63	6	8	4	12	6		762	
70	4	8	4	11	8		844	
41	8	8	1	8	5		500	
101	6	14	6	15	7		1218	
71	5	8	3	11	5		857	
74	5	8	6	12	7		893	
63	8	8	8	10	10		764	
66	2	8	7	13	7		794	
67	6	11	0	10	2		810	
83	0	11	9	9	3		996	
27	8	8	8	10	7		332	
67	1	8	3	13	4		805	
58	7	8	0	10	6		703	
77	8	8	6	13	0		932	
78	8	8	6	9	8		944	
82	5	8	7	14	4		989	
83	9	11	8	9	2		1005	
73	0	8	1	13	5		876	
71	11	8	7	13	6		863	
64	0	8	6	13	6		768	
70	8	8	5	9	6		848	
66	7	8	7	13	8		799	
69	10	9	8	12	10		838	
71	10	8	7	13	10		862	
87	10	8	4	10	6		1054	
72	6	8	8	13	8		870	
50	11	7	11	10	0		611	
67	2	10	1	10	4		806	

| Calculated Inches | | Measured | | | | |
Width	Height	Length Feet	Length Inch	Width Feet	Width Inch	Height Feet
97	129	43	7	8	2	11
103	161	72	6	8	6	13
134	155	70	0	11	2	13
127	126	67	11	10	9	10
103	161	73	1	8	6	13
103	165	69	10	8	6	13
102	164	72	6	8	6	13
96	135	61	0	7	11	11
100	145	69	2	8	3	12
103	163	71	10	8	6	13
97	156	73	11	8	1	13
104	161	72	0	8	7	13
97	128	44	4	8	5	10
101	165	73	0	8	6	13
100	125	68	8	8	5	10
101	155	67	9	8	6	12
104	157	63	4	8	6	12
96	155	34	2	8	0	12
101	156	86	2	8	5	13
109	138	87	3	9	0	11
98	83	64	7	8	4	6
97	153	62	1	8	0	12
100	150	62	9	8	6	12
100	140	68	11	8	8	11
97	101	40	11	8	4	8
174	187	101	6	14	8	15
99	137	71	5	8	3	11
102	151	73	6	8	6	12
104	130	64	8	8	5	10
103	163	65	10	8	6	13
132	122	67	1	11	1	9
141	111	83	1	11	9	9
104	127	28	0	8	8	10
99	160	66	1	8	6	13
96	126	58	7	8	0	10
102	156	77	10	8	4	13
102	116	78	6	8	7	9
103	172	81	6	8	7	14
140	110	82	11	11	8	9
97	161	72	8	8	1	13
103	162	72	5	8	6	13
102	162	64	8	8	6	13
101	114	69	10	8	6	9
103	164	66	5	8	6	13
116	154	69	11	9	6	12
103	166	72	2	8	6	13
100	126	83	6	8	6	10
104	164	72	4	8	6	13
95	120	49	11	7	11	9
121	124	67	2	10	0	10

	Calculate Inches			Measured Difference		
Height Inch	Length	Width	Height	Length Inches	Width	Height
0	523	98	132	-1	1	3
5	870	102	161	10	-1	0
11	840	134	167	-22	0	12
6	815	129	126	-2	2	0
5	877	102	161	-9	-1	0
6	838	102	162	7	-1	-3
6	870	102	162	-6	0	-2
3	732	95	135	-5	-1	0
1	830	99	145	-6	-1	0
6	862	102	162	-7	-1	-1
0	887	97	156	-6	0	0
3	864	103	159	-12	-1	-2
7	532	101	127	-7	4	-1
7	876	102	163	-2	1	-2
8	824	101	128	-4	1	3
9	813	102	153	-3	1	-2
11	760	102	155	9	-2	-2
9	410	96	153	-1	0	-2
0	1034	101	156	-10	0	0
5	1047	108	137	1	-1	-1
10	775	100	82	1	2	-1
9	745	96	153	-1	-1	0
7	753	102	151	-9	2	1
8	827	104	140	-17	4	0
5	491	100	101	-9	3	0
5	1218	176	185	0	2	-2
5	857	99	137	0	0	0
10	882	102	154	-11	0	3
9	776	101	129	12	-3	-1
5	790	102	161	-4	-1	-2
11	805	133	119	-5	1	-3
2	997	141	110	1	0	-1
7	336	104	127	4	0	0
4	793	102	160	-12	3	0
4	703	96	124	0	0	-2
1	934	100	157	2	-2	1
8	942	103	116	-2	1	0
5	978	103	173	-11	0	1
1	995	140	109	-10	0	-1
3	872	97	159	-4	0	-2
6	869	102	162	6	-1	0
5	776	102	161	8	0	-1
5	838	102	113	-10	1	-1
7	797	102	163	-2	-1	-1
8	839	114	152	1	-2	-2
5	866	102	161	4	-1	-5
6	1002	102	126	-52	2	0
5	868	102	161	-2	-2	-3
11	599	95	119	-12	0	-1
2	806	120	122	0	-1	-2