

**The Florida Senate**  
**BILL ANALYSIS AND FISCAL IMPACT STATEMENT**

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

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Prepared By: The Professional Staff of the Committee on Transportation

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BILL: SB 1392

INTRODUCER: Senator Brandes

SUBJECT: Transportation

DATE: January 25, 2016

REVISED: \_\_\_\_\_

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Price	Eichin	TR	<b>Pre-meeting</b>
2.			ATD	
3.			AP	

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**I. Summary:**

SB 1392 reflects a number of transportation-related provisions. More specifically, the bill:

- Authorizes the transfer of the Florida Department of Transportation’s (FDOT) Pinellas Bayway System to become part of the turnpike system and preserves rights of certain residents and owners.
- Clarifies the FDOT’s authority with respect to noncompliant traffic and pedestrian control devices.
- Increases from three years to ten years the period after which a dormant prepaid toll account is presumed unclaimed.
- Repeals obsolete bond language relating to the already-repealed Broward County Expressway Authority.
- The bill makes a number of statutory changes specific to the operation and regulation of autonomous vehicles. It:
  - Expressly preempts the regulation and operation of autonomous vehicles on the public roads in this state to the state, except as otherwise specifically authorized by state or federal law.
  - Clarifies that the authorization for a person holding a valid driver license to operate an autonomous vehicle applies on the public roads of this state.
  - Removes provisions regarding the operation of autonomous vehicles on roads for testing purposes.
  - Authorizes a *passenger*, as an alternative to an *operator*, to have currently-required, readily accessible means to engage and disengage the autonomous technology and to take control of the vehicle.
  - Provides an exemption from required minimum following distance, and from a prohibition on certain television-type equipment visible from a driver’s seat, to users of driver-assistive truck platooning technology, as defined in the bill.
  - Requires metropolitan planning organizations to accommodate advances in vehicle technology when developing long-range transportation plans.

- Requires the FDOT to accommodate advances in vehicle technology when updating the Strategic Intermodal System (SIS) Plan..
- Authorizes television-type receiving equipment visible from the driver's seat if the vehicle is equipped with the autonomous technology and operated in autonomous mode.

The fiscal impact of the bill is indeterminate. Please see Section V.

The bill takes effect on July 1, 2016.

## II. Present Situation:

Due to the disparate issues in the bill, the present situation for each section is discussed below in conjunction with the Effect of Proposed Changes.

## III. Effect of Proposed Changes:

### Pinellas Bayway System (Section 8)

#### *Present Situation:*

The Pinellas Bayway System, currently owned by the FDOT with tolls collected by the Florida Turnpike Enterprise,<sup>1</sup> is a system of bridges and causeways that provides an east-west link between St. Petersburg and St. Petersburg Beach via State Road 682. The system also serves Tierra Verde and Fort De Soto Park to the south via State Road 679. One of the bridges, on State Road 679 over Boca Ciega Bay, was classified as structurally deficient in 2013. "Structurally deficient," according to an FDOT spokesperson, "means that a bridge has to be repaired or replaced within six years." The term does not mean that a bridge is unsafe.

Such replacement is in accordance with the FDOT's policy to replace a bridge within six years of the deficient classification.<sup>2, 3</sup> The scope of the work is to replace the existing movable bridge with a high-level fixed bridge through a design-build contract, at a cost of \$47.4 million, with an additional 10 percent for construction engineering and inspection, for a total cost of \$52.1 million.<sup>4</sup> However, no funds for replacement of the bridge are currently included in the FDOT's District 7 work program. The FDOT advises that the balance of an existing reserve construction account for Pinellas Bayway improvements as of December 31, 2015, was \$7,326,346.13.<sup>5</sup>

<sup>1</sup> See the Florida Transportation Commission's *Transportation Authority Monitoring and Oversight Fiscal year 2014 Report*: <http://www.ftc.state.fl.us/reports/TAMO.shtm>. Last visited January 21, 2016.

<sup>2</sup> See the Bay News 9 article, "6 Bay area bridges "structurally deficient:" [http://www.baynews9.com/content/news/baynews9/news/article.html/content/news/articles/bn9/2016/1/13/tampa\\_bay\\_deficient\\_.html](http://www.baynews9.com/content/news/baynews9/news/article.html/content/news/articles/bn9/2016/1/13/tampa_bay_deficient_.html). Last visited January 21, 2016. See also the FDOT's e-mailed response to committee staff questions re Pinellas Bayway dated January 5, 2016. (On file in the Senate Transportation Committee.)

<sup>3</sup> Note that replacement of the old drawbridge on State Road 682 connecting St. Petersburg and St. Petersburg Beach was completed in 2014 at a cost of approximately \$41 million. See the 10 News article, "New Pinellas Bayway grand opening Friday:" <http://www.wtsp.com/story/news/traffic/road-warrior/2014/10/16/bayway/17352735/>. Last visited January 21, 2016.

<sup>4</sup> See the FDOT's e-mailed response to committee staff questions re Pinellas Bayway dated January 5, 2016. (On file in the Senate Transportation Committee.)

<sup>5</sup> See the FDOT email to committee staff dated January 21, 2016. (On file in the Senate Transportation Committee.)

### ***Bayway System Construction and Tolls***

In 1968, the predecessor of the FDOT entered into a settlement agreement in the case of Leonard Lee Ratner, Esther Ratner, and LEECO Gas and Oil Co., vs. State Road Department of the State of Florida.<sup>6</sup> In the agreement, the State Road Department agreed that owners and residents of real property in the Bayway Isles Development would have the right to purchase what amounts to an annual pass through the toll gate at the easterly terminus of the Bayway system in St. Petersburg, Florida, for \$15 for each automobile. That agreement remains in place.

Chapter 85-364, L.O.F., required a toll of \$.50 cents, following completion of widening to four lanes from the eastern toll booth to State Road 679, at the eastern and western toll plazas on State Road 682. The FDOT was required, after payment of annual operating costs and discharge of bond indebtedness, to establish a reserve construction account to be used for widening to four lanes State Road 682 from State Road 679 west to Gulf Boulevard. Continued collection of tolls was required upon completion of the widening to reimburse the FDOT for all accrued maintenance costs for the Pinellas Bayway. In addition, the FDOT was required to allow any person to purchase for each owned motor vehicle an annual pass at a cost of \$50 per year, which exempts the motor vehicle from any Pinellas Bayway tolls during the term of the pass. The ability to purchase an annual \$50 pass remains in place.

Chapter 95-382, L.O.F., required tolls collected to first be placed in the construction reserve account, after payment of operating costs and bond indebtedness, to be used for construction of Blind Pass Road, State Road 699 improvements in Pinellas County, *and then* for Phase II of the Pinellas Bayway widening to four lanes of State Road 682 from State Road 679 west to Gulf Boulevard. Left unchanged is continued collection of tolls to reimburse the FDOT for all accrued maintenance costs.

Section 48 of chapter 2014-223, L.O.F., struck reference to the Blind Pass Road/State Road 699 improvements and provided that funds in the reserve construction account be used for the widening of State Road 682 from State Road 679 west to Gulf Boulevard.<sup>7</sup> These improvements have now been completed. As noted, however, the bridge on State Road 679 over Boca Ciega Bay has been declared structurally deficient.

Currently, for a two-axle vehicle, the toll, other than for those that hold the \$15 or the \$50 annual pass, is:

- \$.53 cents for SunPass customers and \$.75 cents for cash customers, both westbound at the East Plaza and eastbound at the West Plaza, plus \$.53 cents and \$.75 cents, respectively, for each additional axle.
- \$.26 cents for SunPass customers and \$.50 cents for cash customers southbound at the south plaza, plus an additional \$.26 cents and \$.50 cents, respectively, for each additional axle.<sup>8</sup>

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<sup>6</sup> Copy on file in the Senate Transportation Committee.

<sup>7</sup> *Supra* note 31.

<sup>8</sup> See the Florida Turnpike Toll Calculator, click on "Tampa Area," roll over hot buttons to select the Pinellas Toll Plazas: <http://www.floridasturnpike.com/TollCalcV3/index.htm>. Last visited January 21, 2016.

***Effect of Proposed Changes:***

**Section 8** creates subsection (11) of s.338.165, F.S., to authorize the FDOT to transfer the Pinellas Bayway System and become part of the turnpike system under the Florida Turnpike Enterprise Law. Ownership of the Bayway System would be transferred from the FDOT to the Turnpike Enterprise. The FDOT advises that such transfer would allow a project to replace the structurally deficient bridge to be moved up from 2020 to 2017, with the work being “funded through a combination of the accrued reserve account revenues and other financing available to Florida’s Turnpike.”<sup>9</sup> The bill also preserves the rights of the identified residents and owners to the \$15 annual pass.

**Uniform Traffic Control Devices/School Zones (Section 2)*****Present Situation:***

Section 316.0745, F.S., requires the FDOT to adopt a uniform system of traffic control devices for use on the streets and highways of this state. The FDOT has adopted the Federal Highway Administration’s Manual on Uniform Traffic Control Devices (MUTCD) by rule.<sup>10</sup> All official traffic control signals and devices purchased and installed in this state must conform to the MUTCD.<sup>11</sup> An “official traffic control device” includes all signs, signals, markings, and devices, not inconsistent with ch. 316, F.S., placed or erected by authority of a public body or official having jurisdiction for the purpose of regulating, warning, or guiding traffic. An “official traffic control signal” includes any device, whether manually, electrically, or mechanically operated, by which traffic is alternately directed to stop and permitted to proceed.<sup>12</sup>

Similarly, s. 316.1895, F.S., requires the FDOT, pursuant to its authority in s. 316.0745, F.S., to adopt a uniform system of traffic control and pedestrian control devices for use on the streets and highways in the state surrounding all schools, public and private. Each county and municipality in the state is required to install and maintain traffic and pedestrian control devices in conformity with the MUTCD.<sup>13</sup> A school zone located on a state-maintained primary or secondary road must be maintained by the FDOT;<sup>14</sup> if located outside of a municipality and on a county road, by the county; and if located in a municipality, by the municipality.<sup>15</sup>

The FDOT is currently authorized, after hearing pursuant to 14 days’ notice, to direct the removal of any purported traffic control device, wherever located, that fails to meet the MUTCD requirements.<sup>16</sup> In such case, the erecting or installing public agency must immediately remove the device or signal upon the FDOT’s direction. For five years from the required removal, installation of any replacement or new device paid for with any revenues raised by the state is prohibited, unless prior written approval is received from the FDOT. Any additional violation is

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<sup>9</sup> *Supra* note 31.

<sup>10</sup> *See* Rule 14-15.010, F.A.C.

<sup>11</sup> Section 316.0745(3), F.S.

<sup>12</sup> Sections 316.003(23) and (24), F.S.

<sup>13</sup> Section 316.1895(1), F.S.

<sup>14</sup> However, the FDOT may enter into agreements with counties or municipalities under which the local entity maintains specified school zones on state-maintained primary or secondary roads. Section 316.1895(3)(a). F.S.

<sup>15</sup> Section 316.0895(3), F.S. “Maintained” is defined to mean the care and maintenance of all school zone signs, markers, and traffic and pedestrian control devices.

<sup>16</sup> Section 316.0745(7), F.S.

cause for withholding of state funds for traffic control purposes until the public body or official demonstrates compliance to the FDOT.

Disputes have arisen over the FDOT's authority to require compliant school signage that is erected or installed in a municipal school zone.<sup>17</sup>

***Effect of Proposed Changes:***

**Section 2** amends s. 316.0745(7), F.S., to clarify the FDOT's authority with respect to uniform signals and devices. The FDOT is authorized, *upon receipt and investigation of reported noncompliance*, and after hearing pursuant to 14 days' notice, to direct the removal of any traffic control device that fails to meet the requirements of that section, wherever the device is located *and without regard to assigned responsibility under s. 316.1895, F.S.* The FDOT may allow the erecting or installing public agency to *immediately bring the device into compliance* or remove the device or signal at the FDOT's direction. The five-year suspension provision absent the FDOT's written approval, and the penalty for any additional violation, remain unchanged. If the FDOT receives a report of noncompliance, it is authorized to investigate the noncompliance, provide the notice and hearing, and order that a device or signal be made compliant or order the removal of the device or signal, regardless of existing assignment of maintenance responsibility under s. 316.1895, F.S.

**Turnpike Dormant Toll Accounts (Section 9)**

***Present Situation***

SunPass, the Florida Turnpike's electronic prepaid tolls program, uses transponders to debit a customer's pre-paid account. The pre-paid accounts may be set up and replenished with a credit card or with cash.<sup>18</sup> Currently, any prepaid toll account which has been inactive for three years is presumed unclaimed. The Department of Financial Services (DFS) is required to process any such inactive account in accordance with applicable provisions of ch. 717, F.S., relating to the disposition of unclaimed property, and the FDOT is directed to close such accounts.<sup>19</sup>

***Effect of Proposed Changes:***

**Section 9** amends s. 338.231(3)(c), F.S., to increase the period after which a dormant prepaid toll account is presumed unclaimed from three years to ten years, thereby delaying disposition by the DFS and closing of the account by the FDOT. The FDOT advises:

[T]he deletion is desired because, with multi-state toll interoperability already implemented, and national toll interoperability mandated by federal law,<sup>20</sup> prepaid customers may live outside Florida and use their

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<sup>17</sup> See the 10 News article, *Is city staff downplaying school zone speed traps?*, available at: <http://www.wtsp.com/story/news/investigations/2015/09/29/st-pete-council-not-getting-all-facts-on-school-zone-speed-traps/73049462/>. Last visited January 25, 2016.

<sup>18</sup> See the SunPass website, *Frequently Asked Questions*: <https://www.sunpass.com/faq>. Last visited January 25, 2016.

<sup>19</sup> Section 338.231(3)(c), F.S.

<sup>20</sup> The Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21) requires implementation of technologies or business practices that provide for the interoperability of electronic toll collection on all Federal-aid highway toll facilities by October

Florida prepaid toll account only when vacationing or otherwise visiting the state.

We believe that the affected citizens and businesses would react positively to the proposal as funds on a prepaid toll account continue to be managed by the Department. This provides the customers that have had no activity on a prepaid toll account for the 10 year time with continued direct access to the same agency with whom they established the account.<sup>21</sup>

### **Broward County Expressway Authority/Obsolete Bond Language (Section 9)**

#### ***Present Situation:***

The Broward County Expressway Authority built the Sawgrass Expressway, a 23-mile facility in Broward County. In 1990, the FDOT acquired the expressway, and it became a part of Florida's Turnpike System.<sup>22</sup> The Expressway Authority was abolished in 2011.<sup>23</sup> Section 338.221(5), F.S., generally authorizes the FDOT to pledge revenues from the turnpike system to the payment of Broward County Expressway Authority bond series 1984 and series 1986-A bonds. No such bonds are currently outstanding,<sup>24</sup> and the language is obsolete.

#### ***Effect of Proposed Changes:***

**Section 9** repeals the obsolete language in s. 338.231(5), F.S., relating to bonds of the abolished Broward County Expressway Authority.

### **Transportation Corridors (Section 12)**

#### ***Present Situation:***

Section 341.0532, F.S., enacted in 2003, currently defines "statewide transportation corridor" as a system of transportation infrastructure that collectively provides for the efficient movement of significant volumes of intrastate, interstate, and international commerce by seamlessly linking multiple modes of transport. That section also lists eight corridors deemed "Florida's statewide transportation corridors."

In the same year, the Legislature enacted the Strategic Intermodal System (SIS) which collectively serves 56 percent of State Highway System traffic, 70 percent of State Highway System truck traffic, 89 percent of interregional bus and rail passengers, 99 percent of commercial air passengers and cargo, and 100 percent of rail and waterborne freight tonnage and

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1, 2016. See the FHWA website, *Investment* heading, *Tolling [1512]* subheading: <http://www.fhwa.dot.gov/map21/summaryinfo.cfm>. Last visited January 25, 2016.

<sup>21</sup> See the FDOT 2015 Legislative Proposal, *Dormant Accounts/Tolls/SunPass*. On file in the Senate Transportation Committee.

<sup>22</sup> See the Florida Turnpike website: [http://www.floridasturnpike.com/about\\_system.cfm#7](http://www.floridasturnpike.com/about_system.cfm#7) Last visited January 25, 2016.

<sup>23</sup> See s. 18, ch. 2011-64, Laws of Florida.

<sup>24</sup> See the FDOT email to committee staff dated February 26, 2015. On file in the Senate Transportation Committee.

cruise ship passengers.<sup>25 26</sup> The corridors currently listed in s. 341.0532, F.S., with limited exception,<sup>27</sup> are also part of the SIS. Section 341.0532, F.S., is not referenced elsewhere in the Florida Statutes, and the FDOT advises that section is not used in performing any of its duties and responsibilities.<sup>28</sup> The statute appears to be obsolete.

***Effect of Proposed Changes:***

**Section 12** repeals s. 341.0532, F.S., which created Florida’s statewide transportation corridors. The corridors continue to be managed through their inclusion in the SIS.

**Autonomous Vehicles (Sections 1, 4-7, 10, and 11)**

***Present Situation:***

Once thought of as a futuristic possibility rather than a near-present reality, self-driving or “autonomous” vehicles, offer significant potential to improve safety and save lives, improve the environment through the reduction of greenhouse gas emissions, and increase mobility for the traveling public.<sup>29</sup> Autonomous vehicle technology is rapidly developing. Federal law regarding the deployment of autonomous technology in vehicles is transforming, and some states, including Florida, have taken steps to accommodate the emerging advancements in the autonomous vehicle field.

***Levels of Vehicle Automation and Evolving Federal Policy***

Self-driving cars are just one form of vehicle automation. The National Highway Traffic Safety Administration (NHTSA) in 2013<sup>30</sup> defined a range of vehicle automation, from vehicles that do not have any of their control systems automated, through fully automated vehicles.

NHTSA also made a number of recommendations in its 2013 Policy Statement, including those for:

- Licensing Drivers to Operate Self-Driving Vehicles for Testing.
- State Regulations Governing Testing of Self-Driving Vehicles.
- Basic Principles for Testing of Self-Driving Vehicles.
- Regulations Governing the Operation of Self-Driving Vehicles for Purposes Other than Testing.

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<sup>25</sup> The Strategic Intermodal System (SIS) is the statewide network of high priority transportation facilities, including the state’s largest and most significant airports, spaceports, deepwater seaports, freight rail terminals, interregional rail and bus terminals, rail corridors, urban fixed guideway transit corridors, waterways, and highways. The SIS is the state’s highest statewide priority for transportation capacity improvements. See the FDOT SIS brochure, available at: <http://www.dot.state.fl.us/planning/sis/Strategicplan/>. Last visited January 25, 2016.

<sup>26</sup> See the 2014 FDOT *Strategic Intermodal System Briefing*. On file in the Senate Transportation Committee.

<sup>27</sup> See the FDOT email, March 2, 2015. On file in the Senate Transportation Committee.

<sup>28</sup> *Id.*

<sup>29</sup> See the Rand Transportation, Technology, and Space Program’s “*Autonomous Vehicle Technology, A Guide for Policymakers*,” for an extensive discussion of the potential benefits, summarized at p. xiv: [http://www.rand.org/content/dam/rand/pubs/research\\_reports/RR400/RR443-1/RAND\\_RR443-1.pdf](http://www.rand.org/content/dam/rand/pubs/research_reports/RR400/RR443-1/RAND_RR443-1.pdf). Last visited January 23, 2016.

<sup>30</sup> See NHTSA’s 2013 *Preliminary Statement of Policy Concerning Automated Vehicles*, at p. 4: [file:///C:/Users/One/Downloads/Automated\\_Vehicles\\_Policy%20\(9\).pdf](file:///C:/Users/One/Downloads/Automated_Vehicles_Policy%20(9).pdf). Last visited January 23, 2016.



- Regulations Governing the Operation of Self-Driving Vehicles for Purposes Other than Testing.<sup>31</sup>

The arrival of general availability of autonomous vehicles has been the subject of much discussion. NHTSA, however, recently updated its policy, acknowledging rapid development of emerging automation technologies and recognizing the feasibility of widespread deployment of partially and fully automated vehicles.<sup>32</sup> NHTSA's administrator announced NHTSA's use of available tools to accelerate deployment of technologies that can eliminate 94 percent of crashes involving human error.<sup>33</sup> NHTSA committed to working with state partners on a consistent national policy to provide options, now and in the future, for manufacturers to seek deployment of autonomous vehicles.

In addition, the U.S. D.O.T. outlined the following 2016 milestones:

- NHTSA will work with industry and other stakeholders within six months to develop guidance on the safe deployment and operation of autonomous vehicles, providing a common understanding of the performance characteristics necessary for fully autonomous vehicles and the testing and analysis methods needed to assess them.
- In the same six months, NHTSA will work with state partners, the American Association of Motor Vehicle Administrators, and other stakeholders to develop a model state policy on automated vehicles that offers a path to consistent national policy.
- Manufacturers are encouraged to submit rule interpretation requests where appropriate to help enable technology innovation.<sup>34</sup>
- When interpretation authority is not sufficient, manufacturers are encouraged to submit requests for use of the agency's exemption authority to allow the deployment of fully autonomous vehicles.<sup>35</sup> Exemption authority allows NHTSA to enable the deployment of up to 2,500 vehicles for up to two years if the agency determines that an exemption would ease development of new safety features.<sup>36</sup>
- DOT and NHTSA will develop the new tools necessary for this new era of vehicle safety and mobility, and will consider seeking new authorities when they are necessary to ensure that fully autonomous vehicles, including those designed without a human driver in mind, are

<sup>31</sup> NHTSA at that time recommended against states authorizing the operation of self-driving vehicles for purposes other than testing and suggested: "Should a state nevertheless decide to permit such non-testing operation of self-driving vehicles, at a minimum the state should require that a properly licensed driver (i.e., one licensed to drive self-driving vehicles) be seated in the driver's seat and be available at all times in order to operate the vehicle in situations in which the automated technology is not able to safely control the vehicle." *Supra* note 2, at pp. 11-14.

<sup>32</sup> See NHTSA's 2016 Update to Preliminary Statement of Policy Concerning Automated Vehicles, at p. 1: <file:///C:/Users/One/Downloads/Autonomous-Vehicles-Policy-Update-2016.pdf>. Last visited January 23, 2016.

<sup>33</sup> See the U.S.D.O.T. announcement: <https://www.transportation.gov/briefing-room/secretary-foxx-unveils-president-obama%E2%80%99s-fy17-budget-proposal-nearly-4-billion>. Last visited January 23, 2016.

<sup>34</sup> As an example, the announcement links to a NHTSA response to a BMW request for an interpretation confirming that BMW's remote self-parking system meets the Federal Motor Vehicle Safety Standards. The response notes that NHTSA does not provide approvals of vehicles or vehicle equipment or make determinations as to whether a product conforms to the Federal Motor Vehicle Safety Standards (FMVSSs) outside of an agency compliance test. Instead, federal law requires manufacturers to self-certify that a product conforms to all applicable FMVSSs in effect on the date of product manufacture. See the NHTSA response: <file:///C:/Users/One/Downloads/BMW-response-01042016.pdf>. Last visited January 23, 2016.

<sup>35</sup> See 49 C.F.R. Part 555.

<sup>36</sup> See 49 C.F.R., Subpart A, s. 555.6.



deployable in large numbers when they are demonstrated to provide an equivalent or higher level of safety than is now available.

Also announced is an executive budget proposal for fiscal year 2017. If enacted, nearly \$4 billion would be used to test connected vehicle systems in designated corridors throughout the county. These pilot programs would also allow funding to be used for working with industry leaders on a common multistate structure for connected and autonomous vehicles.<sup>37</sup>

### ***State Regulation of Autonomous Vehicles***

Nevada, in 2011, was the first state to authorize operation of autonomous vehicles.<sup>38</sup> In various forms, legislation has also been enacted in Washington, D.C., and five other states, including Florida.<sup>39</sup> The Florida Legislature first enacted legislation on the matter in 2012.<sup>40</sup> The legislation provided legislative intent, defined relevant terms, provided vehicle requirements and guidelines for testing, set out certain liability provisions, and required the Florida Department of Highway Safety & Motor Vehicles (DHSMV) to submit a report on autonomous vehicles.<sup>41</sup>

Sixteen states introduced legislation related to autonomous vehicles in 2015, up from 12 states in 2014, nine states and D.C. in 2013, and six states in 2012.<sup>42</sup> The most recent development at the state level occurred in California in December of 2015, in which its Department of Motor Vehicles released draft autonomous vehicle deployment regulations for public comment, in preparation for “the next step toward allowing the public to operate self-driving cars on California roadways in the future.”<sup>43</sup>

### ***Current Florida Law***

*Definitions:* Section 316.003(90), F.S., defines “autonomous vehicle” as any vehicle equipped with autonomous technology. That subsection also includes a definition of “autonomous technology,” which means technology installed on a motor vehicle that has the capability to drive the vehicle on which the technology is installed without the active control or monitoring by a human operator.<sup>44</sup>

*Operation:* Operation of autonomous vehicles is authorized as specified in s. 316.85, F.S. A person who possesses a valid driver license may operate an autonomous vehicle in autonomous

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<sup>37</sup> *Supra* note 7.

<sup>38</sup> See the National Conference of State Legislatures website for additional detail on legislation already enacted by specified states: [http://www.ncsl.org/research/transportation/autonomous-vehicles-legislation.aspx#Enacted\\_Autonomous\\_Vehicles\\_Legislation](http://www.ncsl.org/research/transportation/autonomous-vehicles-legislation.aspx#Enacted_Autonomous_Vehicles_Legislation). Last visited January 23, 2016.

<sup>39</sup> The other four states are California, Michigan, North Dakota, and Tennessee. *Id.*

<sup>40</sup> Chapter 2012-174, L.O.F. See also ch. 2014-216, L.O.F.

<sup>41</sup> See the report at: <http://www.flhsmv.gov/html/HSMVAutonomousVehicleReport2014.pdf>. Last visited January 24, 2016.

<sup>42</sup> *Supra* note 12.

<sup>43</sup> This followed California’s legislation directing the adoption of safety standards and performance requirements to ensure the safe operation and testing of autonomous vehicles. See the California Department of Motor Vehicles Press Release: [https://www.dmv.ca.gov/portal/dmv/detail/pubs/newsrel/newsrel15/2015\\_63](https://www.dmv.ca.gov/portal/dmv/detail/pubs/newsrel/newsrel15/2015_63). Last visited January 23, 2016.

<sup>44</sup> The latter definition does not include a motor vehicle enabled with active safety systems or driver assistance systems, including, without limitation, a system to provide electronic blind spot assistance, crash avoidance, emergency braking, parking assistance, adaptive cruise control, lane keep assistance, lane departure warning, or traffic jam and queuing assistant, unless any such system alone or in combination with other systems enables the vehicle on which the technology is installed to drive without the active control or monitoring by a human operator.

mode.<sup>45</sup> When a person causes the vehicle's autonomous technology to engage, regardless of whether the person is physically present in the vehicle while the vehicle is operating in autonomous mode, that person is deemed the operator of the vehicle.

*Testing:* Testing of vehicles equipped with autonomous technology is authorized in s. 316.86, F.S. Employees, contractors, or other persons designated by manufacturers of autonomous technology, or by research organizations associated with accredited educational institutions, are authorized to operate such vehicles on roads in this state to test autonomous technology. A human operator must be present in the vehicle being tested, with the ability to monitor the vehicle's performance and intervene, if necessary, unless the vehicle is being tested or demonstrated on a closed course.<sup>46</sup> Before testing, the entity performing the testing must submit an instrument of insurance, surety bond, or proof of self-insurance acceptable to the DHSMV in the amount of \$5 million.<sup>47</sup>

*Vehicle Requirements:* Section 319.145, F.S., requires an autonomous vehicle registered in this state<sup>48</sup> to meet federal standards and regulations for a motor vehicle. This section of law is expressly superseded when in conflict with NHTSA federal regulations. In addition, an autonomous vehicle must:

- Have a means to engage and disengage the autonomous technology which is easily accessible to the operator.
- Have a means, inside the vehicle, to visually indicate when the vehicle is operating in autonomous mode.
- Have a means to alert the operator of the vehicle if a technology failure affecting the ability of the vehicle to safely operate autonomously is detected while the vehicle is operating autonomously in order to indicate to the operator to take control of the vehicle.
- Be capable of being operated in compliance with the applicable traffic and motor vehicle laws of this state.

### ***Local Regulation of Autonomous Vehicles***

Current Florida law reflects no provision addressing local regulation of autonomous vehicles.

### ***Transportation Planning and Autonomous Vehicles***

Section 339.175(7), F.S., requires metropolitan planning organizations (MPOs) to develop a long-range transportation plan addressing at least a 20-year planning horizon. The plans must be consistent, to the maximum extent feasible, with local government comprehensive plans of the local governments located within the jurisdiction of the MPO.

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<sup>45</sup> The DHSMV will authorize a person who possesses a valid driver license to operate an autonomous vehicle in autonomous mode on a Florida roadway, but only if manufacturers of the technology designate the person as a driver for testing purposes. See the DHSMV publication, *Excellence in Service, Education, and Enforcement*, Summer 2012, heading "2012 Legislative Update," at p. 1: <http://www.flhsmv.gov/html/CJSummer2012.pdf>. Last visited January 24, 2016.

<sup>46</sup> The DHSMV will authorize operation of an autonomous vehicle in autonomous mode without a human physically present in the vehicle only on a closed course. See the DHSMV email to committee staff dated January 25, 2016. On filed in the Senate Transportation Committee.

<sup>47</sup> This section of the law also provides immunity from certain liability for the original manufacturer of a vehicle converted by a third party into an autonomous vehicle under specified conditions. Section 316.86(2), F.S.

<sup>48</sup> Chapter 320, F.S., reflects no vehicle registration provision specific to autonomous vehicles.

Section 339.64, F.S., requires the FDOT to develop and update every five years, in cooperation with MPOs, regional planning councils, local governments, and other transportation providers, a Strategic Intermodal System (SIS) Plan. The plan must be consistent with the Florida Transportation Plan.<sup>49</sup>

***Effect of Proposed Changes:***

**Section 5** amends s. 316.85, F.S., expressly authorizes a person holding a valid driver license to operate an autonomous vehicle in autonomous mode on roads in this state if the vehicle is equipped with autonomous technology, as defined in s. 316.003, F.S. Operation of an autonomous vehicle on roads in this state is no longer limited to licensed drivers designated for testing purposes. This section also expressly preempts to the state all matters relating to the regulation and operation of autonomous vehicles on the public roads in this state, except as otherwise specifically authorized by state or federal law.

**Section 6** amends s. 316.86, F.S., to remove provisions regarding the operation of vehicles equipped with autonomous technology on roads for testing purposes, including the provisions:

- Authorizing employees, contractors, or other persons designated by manufacturers of autonomous technology, or by research organizations associated with accredited educational institutions, to operate such vehicles on roads in this state to test autonomous technology.
- Requiring a human operator to be present in the vehicle being tested, with the ability to monitor the vehicle's performance and intervene, if necessary, unless the vehicle is being tested or demonstrated on a closed course.
- Requiring the specified security before testing.

Left in place are the original manufacture liability protections.

**Section 7** amends s. 319.145, F.S., to clarify that registered autonomous vehicles must meet *applicable* federal standards and regulations for such vehicles. The required easily accessible means by which the operator engages and disengages the technology, and the required means to alert the operator of a described technology failure to indicate to the operator to take control of the vehicle, are expanded to include that such means may alternatively be made accessible to a passenger.

Taken together, these sections of the bill authorize on the public roads of this state operation of autonomous vehicles equipped with the defined autonomous technology by any person holding a valid driver license, without the need to be designated by an autonomous vehicle manufacturer for testing purposes, and without any testing. The physical presence of a human *operator* is no longer required by virtue of alternatively authorizing a *passenger* to have the readily accessible means to engage and disengage the technology and to take control. Autonomous vehicles registered in this state must continue to meet federal standards and regulations that apply to such vehicles. To the extent that any new provision in the bill regarding vehicle equipment is or becomes in conflict with federal law, the bill's provision would be superseded.

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<sup>49</sup> The Florida Transportation Plan is a statewide transportation plan that considers the needs of the entire state transportation system and examines the use of all modes of transportation to meet such needs. The purpose of the plan is to establish and define the state's long-range transportation goals and objectives over a period of at least 20 years. See s. 339.155, F.S.

**Section 10** amends s. 339.175(3)(c)2., F.S., to include in an MPO's capital investment assessment the goal of improving safety while making the most efficient use of existing transportation facilities. In addition, MPOs are required to consider in developing long-range transportation plans infrastructure and technological improvements necessary to accommodate advances in vehicle technology, such as autonomous vehicle technology and other developments.

**Section 11** amends s. 339.64, F.S., to require the FDOT to coordinate with federal, regional, and local partners, as well as industry representatives, to consider when updating the SIS Plan infrastructure and technological improvements to the SIS necessary to accommodate advances in vehicle technology. The bill also requires the same consideration to be included in the needs assessment.

**Section 1** amends s. 316.003, F.S., separating the unchanged definition of "autonomous technology" from the existing definition of "autonomous vehicle."

**Section 4** amends s. 316.303(1) and (3), F.S., which currently prohibits operation of a motor vehicle if it is equipped with television-type receiving equipment that is visible from the driver's seat, but an electronic display used in conjunction with a vehicle navigation system is not prohibited. The bill authorizes television-type receiving equipment visible from the driver's seat if the vehicle is equipped with the autonomous technology and operated in autonomous mode, both as defined in s. 316.003, F.S.

#### **Driver-Assistive Truck Platooning (Sections 1, 3, and 4)**

##### ***Present Situation:***

In August of 2014, the National Highway Traffic Safety Administration (NHTSA) issued an advance notice of proposed rulemaking, following NHTSA's earlier announcement that the agency will begin working on a regulatory proposal to require vehicle-to-vehicle (V2V) devices in passenger cars and light trucks in a future year. V2V is a crash avoidance technology, relying on communication of information between nearby vehicles to warn drivers about dangerous situations that could lead to a crash.<sup>50</sup> NHTSA advises that, "Using V2V technology, vehicles ranging from cars to trucks and buses to trains could one day be able to communicate important safety and mobility information to one another that can help save lives, prevent injuries, ease traffic congestion, and improve the environment."<sup>51</sup>

One form of V2V technology is known as driver-assistive truck platooning (DATP), which allows trucks to communicate with each other and to travel as close as thirty feet apart with automatic acceleration and braking. A draft is created, reducing wind resistance and cutting down on fuel consumption.<sup>52</sup>

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<sup>50</sup> See the U.S.D.O.T. Fact Sheet on Vehicle-To-Vehicle Communication Technology. On file in the Senate Transportation Committee.

<sup>51</sup> See the NHTSA website: <http://www.safercar.gov/v2v/index.html>. Last visited January 25, 2016.

<sup>52</sup> See the GBT Global News website: <http://www.gobytrucknews.com/driver-survey-platooning/123>. Last visited January 25, 2016.

The DATP concept is based on a system that controls inter-vehicle spacing based on information from forward-looking radars and direct vehicle-to-vehicle communications. Braking and other operational data is constantly exchanged between the trucks, enabling the control system to automatically adjust engine and brakes in real-time. This allows equipped trucks to travel closer together than manual operations would safely allow. Platooning technology is increasingly a subject of interest in the truck community, with multiple companies developing prototypes.<sup>53</sup>

One such system uses integrated sensors, controls, and wireless communications for “connected” trucks. The system is cloud-based, determining in real time whether conditions are appropriate to allow specific trucks to engage in platooning operations. The system synchronizes acceleration and braking between tractor-trailers, leaving steering to the drivers, but eliminating braking distance otherwise caused by lags in the front or rear driver’s response time. The following vehicle is provided video showing the lead truck’s line of sight while the lead vehicle is provided video showing the area behind the following truck. If another vehicle enters between platooning trucks, the system will automatically increase following distance or delink the trucks and then relink once the cut-in risk has passed. If data transfer between platooning trucks ceases, the driver is immediately notified that manual acceleration and braking control is about to resume.<sup>54</sup> The term “driver-assistive truck platooning” is not currently defined or otherwise addressed in current state law.

#### ***Following Too Closely/Television-Type Receiving Equipment***

Section 316.0895(2), F.S., currently deems it unlawful for the driver of any motor truck, motor truck drawing another vehicle, or vehicle towing another vehicle or trailer, when traveling upon a roadway outside of a business or residence district, to follow within 300 feet of another motor truck, motor truck drawing another vehicle, or vehicle towing another vehicle or trailer. That subsection expressly does not prevent overtaking and passing and does not apply upon any lane specially designated for use by motor trucks or other slow-moving vehicles.

Section 316.303, F.S., currently prohibits operation of a motor vehicle if it is equipped with television-type receiving equipment that is visible from the driver’s seat, but an electronic display used in conjunction with a vehicle navigation system is not prohibited.

#### ***Effect of Proposed Changes:***

**Section 1** amends s. 316.003, F.S., defining “driver-assistive truck platooning technology” as vehicle automation technology that integrates a sensor array, wireless communications, vehicle controls, and specialized software to synchronize the acceleration and braking between no more than two truck tractor-semitrailer combinations, while leaving the vehicle’s steering control and systems command in the control of the vehicle’s driver.

**Section 3** amends s. 316.0895(2), F.S., to exempt two truck tractor-semitrailer combinations from the minimum 300 foot following distance requirement, when the combination is equipped

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<sup>53</sup> See the American Transportation Research Institute website: <http://atri-online.org/2014/11/17/atri-seeks-input-on-driver-assistive-truck-platooning/>. Last visited January 25, 2016.

<sup>54</sup> See the Peloton website: <http://www.peloton-tech.com/faq/>. Last visited January 25, 2016.

and connected with driver-assistive truck platooning technology and operating on a multilane limited access facility, if:

- The owner or operator first submits to the DHSMV an instrument of insurance, a surety bond, or proof of self-insurance acceptable to the DHSMV in the amount of \$1 million.
- The vehicles are equipped with an external indication, visible to surrounding motorists, that the vehicles are engaged in truck platooning.
- The vehicles are not required to be placarded due to transporting certain hazardous materials.

**Section 4** amends s. 316.303(3), F.S., to allow vehicles equipped and operating with driver-assistive truck platooning technology to be equipped with electronic displays visible from the driver's seat, and to authorize the operator of a vehicle equipped and operating with truck platooning technology to use an electronic display.

Drivers of platooning trucks meeting the specified conditions are no longer required to maintain 300 feet in distance between the two trucks and are allowed to have television-type receiving equipment visible from the driver's seat.

The bill takes effect July 1, 2016.

#### **IV. Constitutional Issues:**

##### **A. Municipality/County Mandates Restrictions:**

None.

##### **B. Public Records/Open Meetings Issues:**

None.

##### **C. Trust Funds Restrictions:**

None.

#### **V. Fiscal Impact Statement:**

##### **A. Tax/Fee Issues:**

None.

##### **B. Private Sector Impact:**

**Sections 1, 3-7, and 10-11:** The impact of the provisions relating to the operation of autonomous vehicles is unknown. The private sector may realize positive economic benefits in terms of improved safety, environment, mobility, and time savings.

The impact of the driver-assistive truck platooning provisions is unknown. The private sector may realize positive economic benefits in terms of improved safety, environment, mobility, and time savings.

**Section 5:** Transfer of the Pinellas Bayway System from the FDOT to the Florida Turnpike Enterprise does not appear to have an immediate impact on the private sector but a positive fiscal impact may be realized upon construction of the replacement bridge in terms of more efficient travel.

**C. Government Sector Impact:**

**Sections 1, 3-7, and 10-11:** The impact of the provisions relating to the operation of autonomous vehicles is unknown. The government sector may realize positive economic benefits in terms of improved safety, environment, mobility, and time savings.

The impact of the driver-assistive truck platooning provisions is unknown. The government sector may realize positive economic benefits in terms of improved safety, environment, mobility, and time savings.

**Section 5:** The transfer of the Pinellas Bayway System does not appear to have any immediate fiscal impact, as the transfer occurs without the expenditure of any funds. Aside from the project cost information on replacing the structurally deficient bridge over Boca Ciega Bay on SR 679 provided by the FDOT, the method by which replacement will be funded or financed is unknown

**VI. Technical Deficiencies:**

None.

**VII. Related Issues:**

- Under current law, the “operator” is the person who engages technology. The identity of the “operator” of a car occupied only by a passenger or passengers is unclear.
- The Bayway language does not also transfer the reserve account or repeal superseded provisions of prior related chapter laws.

**VIII. Statutes Affected:**

This bill substantially amends the following sections of the Florida Statutes: 316.003, 316.0745, 316.0895, 316.303, 316.85, 316.86, 319.145, 338.165, 338.231, 339.175, and 339.64.

This bill repeals the following sections of the Florida Statutes: 341.0532.

**IX. Additional Information:**

- A. Committee Substitute – Statement of Changes:**  
(Summarizing differences between the Committee Substitute and the prior version of the bill.)

None.



B. Amendments:

None.

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This Senate Bill Analysis does not reflect the intent or official position of the bill's introducer or the Florida Senate.

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