

# Border Wait Times

February 8, 2017  







**The Blue Water Bridge**

**CONNECTING  
TWO  
COUNTRIES:  
FROM MI TO  
CANADA**



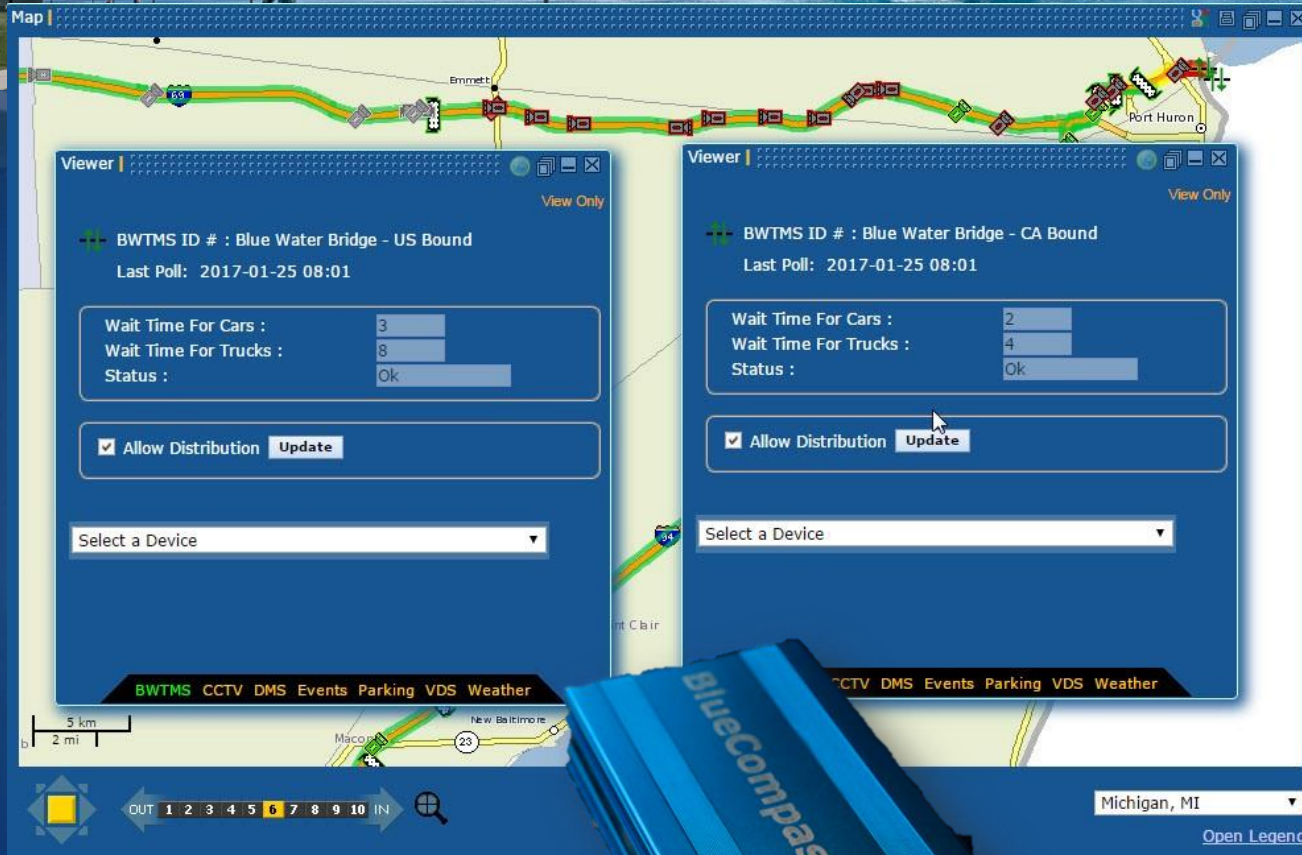
**Detroit-Windsor Tunnel**





# BORDER WAIT TIME

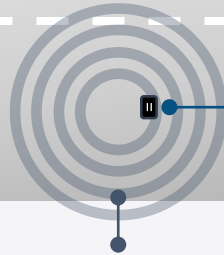
- ▶ Reduce Congestion
- ▶ Maximize Inspection Efficiency
- ▶ Enhance Safety
- ▶ Improved Business Productivity





V2I Applications

# Border Wait Time



Truck traveling  
along I-94  
toward  
U.S.A./Canada  
border

Truck receives  
real-time border  
crossing data  
over cellular  
network

Current wait time:  
Ontario *via*  
Blue Water Bridge  
5 minutes

Driver Vehicle  
Interface (DVI)  
example

Allowing carrier to  
make a data driven  
decision to continue to  
border due to short  
crossing time

# ON THE HORIZON

## GRANT FOCUS AREAS

- ▶ Improve Environmental Features
- ▶ Enhanced Personal Benefits
- ▶ Predictive Data







# TECHNOLOGY

- ▶ Connectivity
- ▶ Data
- ▶ Integration



# STAKEHOLDERS + PARTNERS

- ▶ Michigan Department of Transportation, MDOT
- ▶ Michigan Department of Technology, Management and Budget, DTMB
- ▶ City of Windsor
- ▶ Detroit- Windsor Tunnel
- ▶ Ministry of Transportation, Ontario, MTO
- ▶ Border Authorities/Owners
- ▶ FHWA



- Mike Kowall (R-White Lake)
- Rebekah Warren (D-Ann Arbor)
- Ken Horn (R-Frankenmuth)

## Signed into Law by Governor Snyder

## Led the way to opening Michigan up for the business of automated vehicles







# Public Act No. 332

Mike Kowall (R-White Lake), Primary Sponsor

SENATE BILL No. 995

## SENATE BILL No. 995

May 25, 2016, Introduced by Senator KOWALL, JONES, STAMAS, BRANDENBURG, WARREN, HERTZEL, OHLBECK, SCHMIDT, MARLEAU, HORN and ANANNICH and referred to the Committee on Economic Development and International Development.

A bill to amend 1949 PA 305, entitled "Michigan vehicle code," by amending sections 2b, 402b, 443, 443a, and 443 (MCL 207.2b, 207.402b, 207.443, 207.443a, and 207.443), sections 2b and 443 as added and section 402b as amended by 2013 PA 231, and by adding sections 40c, 404b, and 443a; and to repeal acts and parts of acts.

THE PEOPLE OF THE STATE OF MICHIGAN DO ENACT:

1  
2  
3  
4  
5  
6  
SENATE BILL No. 995  
Sec. 2b. (1) "AUTOMATED DRIVING SYSTEM" MEANS HARDWARE AND SOFTWARE THAT ARE COLLECTIVELY CAPABLE OF PERFORMING ALL ASPECTS OF THE DYNAMIC DRIVING TASK FOR A VEHICLE ON A PART-TIME OR FULL-TIME BASIS WITHOUT ANY SUPERVISION BY A HUMAN OPERATOR. AS USED IN THIS SUBSECTION, "DYNAMIC DRIVING TASK" MEANS ALL OF THE FOLLOWING, BUT DOES NOT INCLUDE STRATEGIC ASPECTS OF A DRIVING TASK, INCLUDING:

00166-15

END

## Putting AV's on the Road

Eliminates "test only" restriction

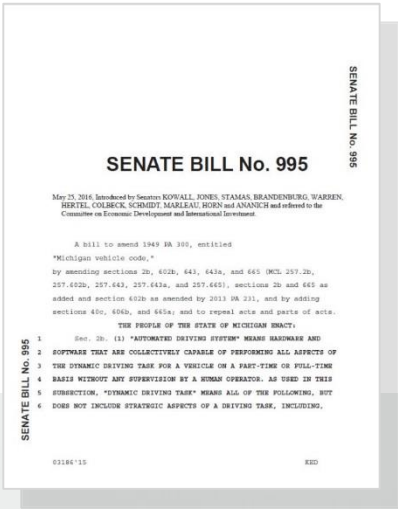
Allows driverless operation on public roads at any time





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## Open for Transport

Platooning of commercial vehicles

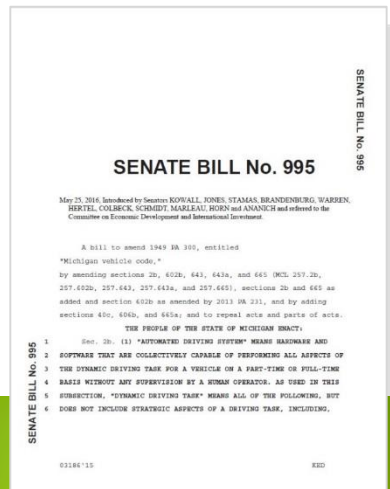
Supporting the military, large shipping or logistics companies





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## A New Way to Ride

Automated vehicle networks connected to consumers

Creates array of travel options for consumers







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THE PEOPLE OF THE STATE OF MICHIGAN DO ENACT:

Sec. 2b. (1) "AUTOMATED DRIVING SYSTEM" MEANS HARDWARE AND SOFTWARE THAT ARE COLLECTIVELY CAPABLE OF PERFORMING ALL ASPECTS OF THE DRIVING TASK FOR A VEHICLE ON A PART-TIME OR FULL-TIME BASIS WITHOUT ANY SUPERVISION BY A HUMAN OPERATOR. AS USED IN THIS SUBSECTION, "DRIVING TASK" MEANS ALL OF THE FOLLOWING, BUT DOES NOT INCLUDE STRATEGIC ASPECTS OF A DRIVING TASK, INCLUDING:

SENATE BILL No. 995

03/06/16

END

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## State of Michigan Support

Council on Future Mobility reports to the legislature annually; recommends new laws or revisions are needed

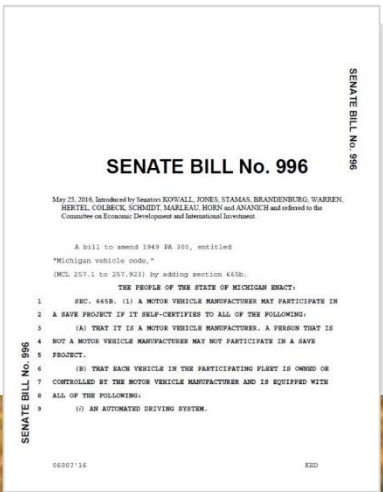
What new policies would help enhance safety, mobility and the state's economy through this technology





# Public Act No. 333

Mike Kowall (R-White Lake), Primary Sponsor



## Supports Manufacturers

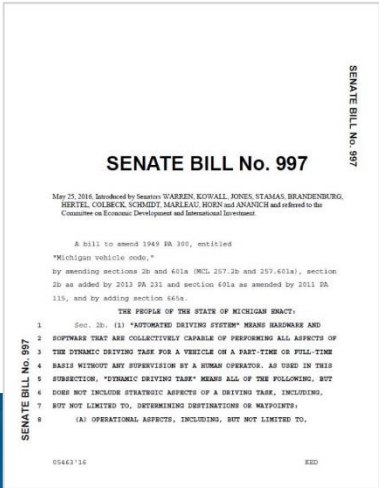
Provides specific standards for SAVE projects

Vehicle networks started and controlled by  
vehicle manufacturers



# Public Act No. 334

Rebekah Warren (D-Ann Arbor), Primary Sponsor



## World Class Destination

Creates the American Center for Mobility (ACM)

The mission of the ACM is still evolving and will include vehicle testing in real world conditions

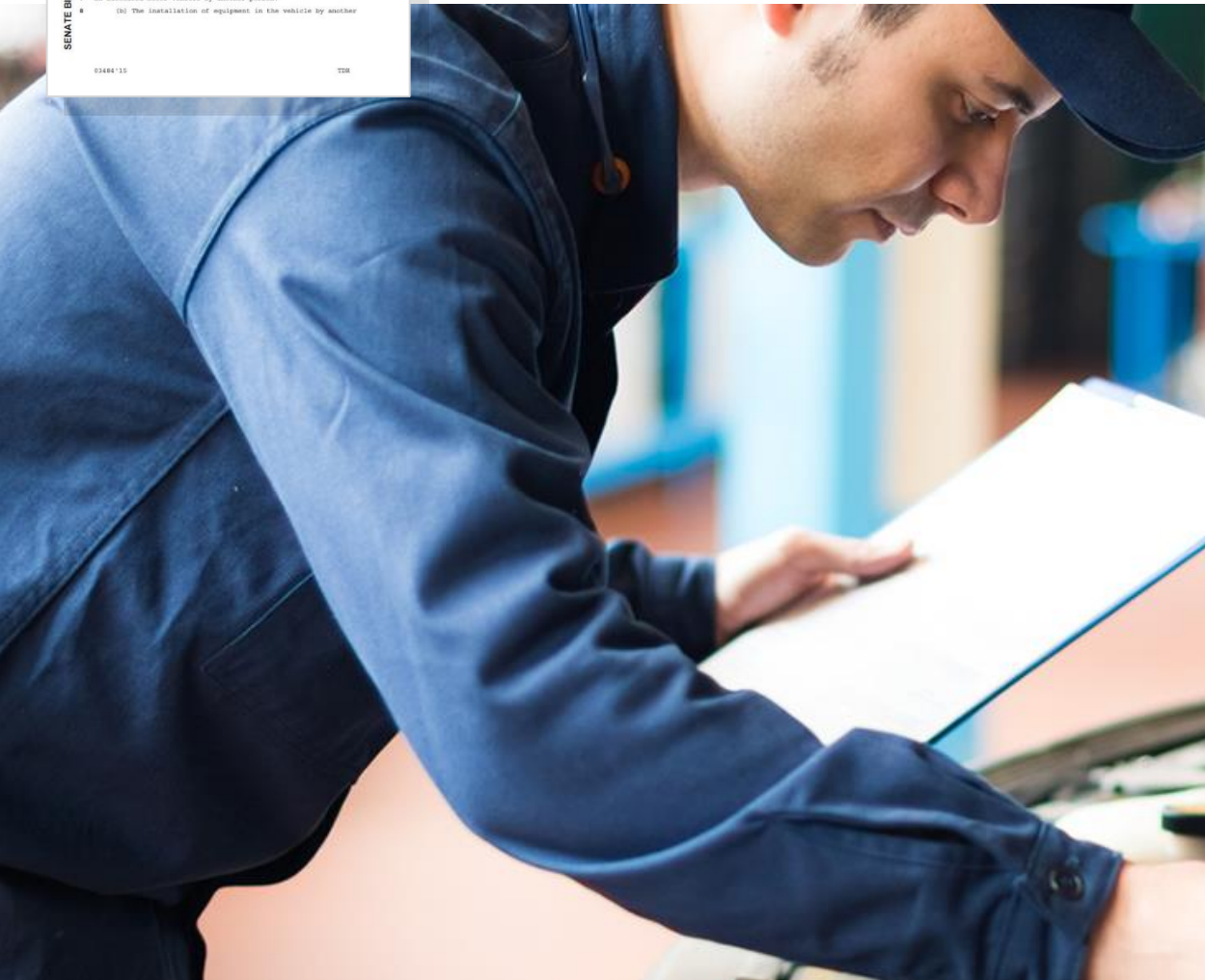
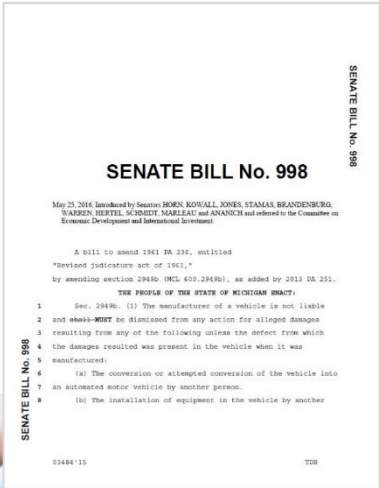






# Public Act No. 335

Ken Horn (R-Frankenmuth), Primary Sponsor



## Protection for Mechanics

Ensures that a mechanic, acting in compliance, will not be exposed to liability when working on autonomous technology.