

Michigan Department of Transportation
Public Act 82 of 2018, Section 303(2) Reporting Requirement
Next Generation Technologies and Service Delivery

Sec. 303. (2) The state transportation department shall submit a report to the state budget director, the chairs of the house and senate committees on appropriations, the house and senate appropriations subcommittees on transportation, and the house and senate fiscal agencies on the use of funds appropriated for next generation technologies and service delivery, including a description of projects, the status of projects, and a breakdown of expenditures by project. The report shall be submitted on or before March 1, 2019. Funds appropriated in part 1 shall not be used by a governmental entity to purchase, construct, operate, or maintain a communications network to provide service to any residential or commercial premises. This prohibition does not apply to state expenditures for a transportation purpose, connected vehicle communication technologies, or other transportation related activities.

Next Generation - Connected and Automated Vehicle (CAV) Program Update (\$4M)

1. **CAV Program Strategic Plan** – The plan encompasses the department’s initiative to support and implement emerging transportation technologies. The plan addressed the specificities related to conscientious and sustainable deployment and utilization of emerging CAV technologies throughout the State and will be reviewed on a bi-annual basis.
2. **CV Program Development Documents** – To further integrate the deployment of CAV technology into standard MDOT business processes, standard program development documents such as Special Provisions, Details, Integration Processes, etc. have been developed and will continue to be refined to support MDOT CV infrastructure deployments.
3. **CV Application Development** – MDOT has continued to invest in the development of the DUAP Application system with an increased focus on the efficient sharing of connected vehicle and other data sets between multiple business areas including applications to support; work zone data collection, pavement asset data collection and CV infrastructure management.
4. **CV Enabled Signal Specification** – A new signal specification was created and is being deployed to allow for better integration of connected vehicle elements and assist with the interface to a future Central Signal System Software.
5. **Central Signal System Software** – MDOT has identified the needs, process improvement, and user stories for a Central Signal System Software. This system is meant to provide valuable insight into the operational status of the statewide signal system for more efficient network operations, management and performance monitoring.
6. **CV Infrastructure Deployment** – MDOT has continued the deployment of RSUs at signalized intersections and strategic freeway locations statewide with a continued focus in Southeast Michigan, working with industry partners such as OEMs and Tier 1 Suppliers. CV Infrastructure Deployment projects of note that are currently underway include the following:
 - **M-1 Traffic Signal Connected Vehicle Infrastructure Upgrades**
 - Project Corridor: M-1
 - Corridor Limits: Jefferson Ave. to I-696
 - Project Description: Traffic Signal Connected Vehicle infrastructure and integration, including the design and construction of traffic signal interconnection and upgrades, DSRC field infrastructure, and communication systems to support Connected Vehicles applications for safety and mobility. In support of a number of CV Industry partners, MDOT will deploy DSRC infrastructure to support long-term operational needs in the corridor, by providing increased safety and mobility at signalized intersections.

- Cost Estimate: \$1.42M
 - JN 203553
 - Phase Status: PE and CON Phase obligated
 - Status: PE work has begun for the design of the locations with construction targeted to begin when the weather breaks.
- **US-12 Traffic Signal Connected Vehicle Infrastructure Upgrades**
 - Project Corridor: US-12
 - Corridor Limits: I-275 to Washtenaw County Line
 - Project Description: Traffic Signal Connected Vehicle infrastructure and integration, including the design and construction of traffic signal interconnection and upgrades, DSRC field infrastructure, and communication systems to support Connected Vehicles applications for safety and mobility. In support of the American Center for Mobility (ACM) at Willow Run, MDOT will deploy DSRC infrastructure along the US-12 corridor. This corridor, adjacent to the ACM site, connects I-94 and I-275, in what will become a connected loop surrounding this AV test site, allowing for test vehicles to proceed off the test site and into a connected open-road environment to further testing and certification efforts.
 - Cost Estimate: \$1.33M
 - JN: 203551
 - Phase Status: PE and CON Phase obligated
 - Status: PE work has begun for the design of the locations with construction targeted to begin when the weather breaks.
- **US-23 Flex Route: Connected Vehicle Corridor**
 - Project Corridor: US-23
 - Corridor Limits: M-14 to 9 Mile Rd.
 - Project Description: Connected Vehicle Infrastructure and Integration, including the design and construction of DSRC field infrastructure and communications systems to support Connected Vehicles applications for safety and mobility. In support of the US-23 Flex Route, and a number of industry and research partners. This deployment will supplement the current Ann Arbor Connected Vehicle Test Environment (AACVTE) being operated by the University of Michigan Transportation Research Institute (UMTRI). MDOT will deploy DSRC infrastructure to support long-term operational needs in the corridor, by providing safety and mobility related messaging.
 - Cost Estimate: \$0.75M
 - JN 204554, JN 203034
 - Phase Status: EPE and CON Phase obligated
 - Status: EPE work has been ongoing. Project has been let and construction will be starting spring 2019.
- **Houghton, Michigan - Traffic Signal Connected Vehicle Infrastructure Upgrades**
 - Project Corridor: Various
 - Corridor Limits: Houghton, Michigan (Near Michigan Technological University)
 - Project Description: Traffic Signal Connected Vehicle infrastructure and integration, including the design and construction of traffic signal interconnection and upgrades, DSRC field infrastructure, and communication systems to support Connected Vehicles applications for safety and mobility. In support of the testing and deployment work that Michigan Technological University is doing, MDOT will deploy DSRC infrastructure at various locations in Houghton. This work will provide real world environment deployment testing locations for Michigan Technological University in the advancement of Connected and Automated Vehicles.
 - Cost Estimate: \$0.50M
 - JN 204768, JN 203545
 - Phase Status: EPE and CON Phase obligated

- Status: EPE work has been ongoing. Construction project was integrated into an on-going signal job JN125835 and has been completed.

Service Delivery Overview (\$8M)

The Michigan Department of Transportation has awarded thirteen projects as a result of the \$8 million Michigan Mobility Challenge call for projects. Each of the demonstration projects is utilizing an emerging technology or innovative service design to solve mobility gaps for seniors, persons with disabilities and/or veterans. The proposals all included evaluation factors that will be collected so that a report of best practices can be generated and published. As of March 2019, the current obligations and expenditures are noted below:

FY2018 Michigan Mobility Challenge				TC82315		
				1000 (GF)		
Appn budgeted amounts:				8,000,000.00		
PRF#	JNs	Authorization		OBLIGATED	Expenditures	Balance
2019-14	204974	2017-0016/P17	Bay Area TA	990,000.00	0.00	990,000.00
2019-23	204983	2017-0064/P5	Hope Network	258,448.00	0.00	258,448.00
2019-21	204981	2017-0008/P8	Ann Arbor TA	157,000.00	0.00	157,000.00
2019-16	204988	2017-0092/P17	Flint MTA	603,512.00	0.00	603,512.00
2019-27	204984	2017-0008/P9	Ann Arbor TA	456,967.00	0.00	456,967.00
2019-29	201835	2017-0027/P8	CATA	464,910.00	0.00	464,910.00
2019-30	202466	2017-0067/P3	Huron Transit Corp	435,640.00	240,000.00	195,640.00
2019-51	202466	2017-0067/P3 R1	R1 adds \$32,840 (added into line above)			0.00
2019-25	202948	2019-0060	Bedestrian LLC	100,000.00	77,990.00	22,010.00
2019-32	202746	2019-0061	Kevadiya, Inc.	232,800.00	0.00	232,800.00
2019-94	206047	2017-0119/P5	Regional TA of SE MI	1,050,000.00	0.00	1,050,000.00
2019-105	206295	2019-0221	Pratt & Miller Engineer (has 64000 funding also)	1,691,325.00	0.00	1,691,325.00
2019-117	206492	2017-0041/P11	Delta Area TA	1,178,129.00	0.00	1,178,129.00
2019-166	207024	2017-0070/P10	IIP	373,782.00	0.00	373,782.00
			Workshop in PA (7,486.30 less refund amt \$226.86)	7,259.52	7,259.52	0.00
Balance:				227.48	325,249.52	7,674,523.00