

Michigan Department of Transportation
Report to the Legislature
PA 119 OF 2023 Section 393(1)(2)

This report fulfills Michigan Department of Transportation (MDOT) obligations under PA 119 of 2023 Section 393(1)(2):

(1) The department shall promote best practices for public transportation services in this state, including, but not limited to, the following:

(a) Transit vehicle rehabilitation to reduce life-cycle cost of public transportation through midlife rehabilitation of transit buses.

(b) Cooperation between entities using transit, including school districts, cities, townships, and counties with a view to promoting cost savings through joint purchasing of fuel and other procurements.

(c) Coordination of transportation dollars among state departments which provide transit-related services, including the department of health and human services. Priority should be given to use of public transportation services where available.

(d) Promotion of intelligent transportation services for buses that incorporate computer and navigation technology to make transit systems more efficient, including stoplight coordinating, vehicle tracking, data tracking, and computerized scheduling.

(2) The department shall report on efforts taken to implement this section. The department shall complete and submit the report to the state budget director, the house and senate appropriations subcommittees on transportation, and the house and senate fiscal agencies on or before March 1, 2024.

Similar language was included in 63 PA 2011, PA 252 of 2014 and PA 84 of 2015. Below you will find historical and updated information for (1) (a) and (b) because many of the historical actions still have impact on current best practices. The landscape has significantly changed in regard to (1) (c) and (d) so only current activity has been provided for those two items.

Best Practice: Transit vehicle rehabilitation to reduce life-cycle cost of public transportation through mid-life rehabilitation of transit buses.

Efforts Completed Fiscal Years 2012 – 2023

- MDOT provides financial, planning, and technical support to the Michigan Public Transportation Association (MPTA) in their delivery of the annual Transit Vehicle

Maintenance Seminar (TVMS). The TVMS provides public transportation technicians and mechanics the opportunity to learn hands-on practices with the latest technology and equipment and is the primary venue by which MDOT supports training and technology transfer on bus maintenance issues.

- When transit agencies opt to use federal funds for bus rehabilitation, MDOT has provided the 20 percent match for these projects.
- MDOT solicited proposals from Michigan colleges/universities that provide vehicle maintenance curriculums to develop a fact sheet to assist transit agencies in determining when it is cost effective to perform rehab/mid-life overhaul on a bus. A proposal from Kettering University was accepted and they developed a fact sheet that included a description of the elements of a rehab/mid-life overhaul as well as important elements to consider for each size bus when determining whether or not a rehab is financially prudent. Although there was not a strong case for mid-life rehab, we identified vehicles that had the highest potential based on the study. We selected vehicles to be part of a pilot program and solicited proposals to complete the work. However, no vendor bid on the opportunity, and none could be found that were interested in performing the work.

Best Practice: Cooperation between entities using transit, including school districts, cities, townships, and counties with a view to promoting cost savings through joint purchasing of fuel and other procurements.

Efforts Completed Fiscal Years 2012 – 2023

- MDOT sponsors training for Michigan transit agencies to make them aware of the detailed federal regulations that govern their procurements. The trainings have all addressed the option of joint purchases and the assignment of contract rights such as “piggyback” contracting and the assignment of options. While there can be significant benefits to joint purchasing with other local governments, these governments may not be subject to the detailed procurement regulations that govern Federal Transit Administration (FTA) funded procurements. Transit agencies need to be keenly aware of both the benefits and possible pitfalls of joint purchasing with entities that are not governed by FTA regulations.
- In cooperation with the Michigan Department of Technology, Management and Budget (DTMB), MDOT executes state bus contracts that are used by Michigan transit agencies, primarily rural agencies, to purchase vehicles. The state contracts provide economies of scale, ensure compliance with Federal and State procurement requirements, and save time by eliminating the need for individual agencies to process bids for buses, which they may only procure buses once every several years. Currently, MDOT has state contracts in place for 12 vehicles with a variety of low and zero emission propulsion systems including CNG,

propane, and battery electric. We offered the first nationally accessible battery electric small bus contract in the country.

- MI DEAL is an extended purchasing program which allows Michigan local units of government to use state contracts to buy goods and services. Membership is open to cities, townships, villages, counties, school districts, universities, community colleges, and non-profit hospitals. Local governments benefit directly from the reduced cost of goods and services. There are over 400 contracts available to MI DEAL members. Transit agencies used these contracts up until October 2014 when, based on an FTA training, MDOT determined all MI DEAL contracts (other than buses and accessible vans) were not in compliance with the most recent FTA regulations. We have recently re-opened discussions with DTMB to determine if they are willing to do FTA compliant procurements for some of the most commonly used commodities as well as technology products such as computer aided dispatch systems.
- MDOT has provided the required 20 percent match for several fueling stations that benefit the transit agencies, other transportation providers, and the general public. The Flint Mass Transportation Authority (MTA) has compressed natural gas (CNG), propane, and hydrogen fueling at its Grand Blanc facility. The Genesee Intermediate School District uses the propane fueling and MTA plans to open the facility to the public after it evaluates its internal needs. The Blue Water Area Transportation Commission (Blue Water) has four CNG fueling facilities. Blue Water partnered with Marine City, Allenton Collision (a private for-profit company) and Cawood Auto (a private for-profit company) for three of the locations. The three outside entities allowed Blue Water to lease a portion of their property for the placement of a CNG refueling station. All three only charged a small fraction of the standard price for leased property – they are partners and proponents of CNG fuel. The fueling facilities are used by another transportation provider and are open to the public.
- IJA has opened many more discretionary funding opportunities and we have submitted consolidated statewide applications and have formed partnerships with non-profits and manufacturers as well as other state departments.
- Most recently we've helped found a community of learning with DOTs from around the country to learn and share with other organizations struggling with supply chain issues in the bus industry. This has led to vehicle shortages, skyrocketing prices and instability in the bus manufacturing market. The community of learning has compared procurement strategies including negotiation tactics, strategies for better utilizing existing fleets and balancing needs of transit agencies. These lessons have been shared with transit agencies and have impacted our approach to bus disposals and transfers. This has also lead to joint procurements amongst states.

Best Practice: Coordination of transportation dollars among state departments which provide transit-related services, including the Department of Human Services (DHS) and the Department of Community Health. Priority should be given to use of public transportation services where available.

Recent Efforts:

- The American Association of State Highway and Transportation Officials (AASHTO) and the Transportation Research Board’s National Cooperative Highway Research Program (NCHRP) have initiated a multi-year process to describe and advance the implementation of a vision for the next era of transportation in the United States. Based on research conducted for NCHRP 20-24 (138), *Collective and Individual Actions to Envision and Realize the Next Era of America’s Transportation Infrastructure*, the AASHTO Board of Directors unanimously adopted a transportation vision framework in October 2022. This framework has three elements: a shared vision and goals; seven bold ideas or “moonshots” to transform transportation by 2030; and a range of individual and collective actions for state DOTs to pursue. MDOT applied and was selected to be a pilot site for this initiative. Our Moonshot project is to identify funding used by other state departments to provide transportation services in support of their primary programs (i.e., non-emergency medical trips covered by Medicaid, transportation costs for displaced workers to receive job training). Once identified and monetized, we will develop a plan to more efficiently utilize the funds to increase mobility options for all people while still meeting the various departments program goals. A mobility marketplace will be considered along with tools such as the MaaS platform that is being developed by MDOT for use statewide by public transit agencies and other shared-ride mobility services.
- The Council on Future Mobility and Electrification’s Mi Future Mobility Plan was the basis for the creation of a Transit Action Team to meet the plan’s goal of improving access to mobility services statewide. The Transit Action Team has been combined with the Moonshot team and a steering committee and strategic subcommittee have been formed to move the projects forward. The teams consist of representatives from MDOT, DHHS, LEO, DTMB, Veterans Services, MIO, public transit agencies, Oakland County, and several other stakeholders.

Best Practice: Promotion of intelligent transportation services for buses that incorporate computer and navigation technology to make transit systems more efficient, including stoplight coordinating, vehicle tracking, data tracking, and computerized scheduling.

Recent Efforts:

- MDOT continues to provide financial, technical, and planning assistance to MPTA to deliver an annual transit meeting each August. The annual meeting includes a Vendor Expo at which transit agencies and MDOT staff can see what is available in the marketplace and talk to other transit agencies that have purchased different types of equipment. There are several vendors of intelligent transportation services that routinely participate in the vendor show. MDOT also supports the annual Transit Vehicle Maintenance Seminar and while not information technology, this event helps highlight emerging bus technologies including zero emission buses and related equipment.
- MDOT hired a consultant to develop a statewide rural transit technology strategic plan which includes an assessment of the readiness of each agency to implement advanced technology projects. This plan was the basis for our successful application for a SMART grant from the US DOT. The SMART grant will assist four pilot transit agencies to produce/collect GTFS data. Once the pilots have been launched, we will be eligible for a second round of funding to implement the technology across the state for rural agencies (and possibly small urban agencies). This will enable the agencies to utilize APIs to make their data more accessible to the public and to connect to trip booking/scheduling software. This technology will greatly enhance the data available on the statewide MaaS platform that is being developed by MDOT's Office of Passenger Transportation (OPT).
- The Statewide Rural Transit Technology Strategic Plan is being utilized to determine funding priorities and to enhance applications for federal technology funds. It is also being used to help inform the transit industry of the technology options available to them for consideration.
- MDOT-OPT created a Mobility Innovation Specialist position who helps select and guide innovative/technology-based pilot and demonstration projects in partnership with the transit agencies and often in partnership with the Office of Future Mobility. We have launched several mobility challenges to show how new technology and innovation can be used to solve mobility gaps in improve the equity of mobility services. She also hosts Tech Talks, which often feature transit agencies sharing their experience with a new technology. In 2023, presentations included a panel discussing microtransit; battery electric cutaway buses and vans; schedule/route optimization software; cashless fare payment. The Tech Talks now have followers from around the country.