## Legislative Analysis

Agency

## DIGITAL LICENSE PLATE PRINTING METHODS

House Bill 4478 as introduced
Sponsor: Rep. Jasper R. Martus
Committee: Transportation, Mobility and Infrastructure
Complete to 9-18-23

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Analysis available at http://www.legislature.mi.gov

## SUMMARY:

House Bill 4478 would amend the Michigan Vehicle Code to require, within one year after sufficient funding is appropriated, that the Department of State use a digital printing method to create all standard design license plates.

Digital printing method would mean a method of creating a license plate that is digitally printed and then laminated to an aluminum substrate.

The department would have to solicit competitive bids for the system design for the digital printing method. The competitive bidding process would have to comply with requirements for the competitive solicitation of bids as provided in section 261 of the Management and Budget Act, ${ }^{1}$ and the competitive bid specifications would have to include at least all of the following:

- A requirement for the procurement of services and material from more than one source.
- A requirement that the digital printing method must not be designed around a single or specific product, piece of major equipment or machinery, specific patented design, or proprietary process, unless required by principles sound engineering practice and approved in writing by the department.
- A provision for the contractor to train the current labor force on using, repairing, and maintaining any equipment or machinery necessary for the printing method.
- A requirement that the system design for the digital printing system be capable of working with the existing functionality of current products and equipment used by the Department of Corrections for license plates.

MCL 257.224

## FISCAL IMPACT:

The bill would result in a substantial increase in annual costs to the Department of State (DOS). Michigan's license plates are currently produced through a program between the Department of Corrections and Michigan State Industries. DOS, in conjunction with the Department of Corrections, conducted an examination of license plate production to compare the current costs of producing embossed license plates with producing digital printed plates, also known as flat plates. The examination considered start-up costs as well as ongoing production costs, such as raw material (aluminum), labor, imaging material, equipment maintenance, proprietary software, inventorying, shipping, specialty plates, among other factors. The cost estimates are presented in the table below.

[^0]DOS has estimated the average cost to produce and ship license plates for FY 2023-24 to be $\$ 2.08$. The price of digitally printed plates would vary depending on the vendor the state would contract with, but average costs were estimated to be approximately $\$ 3.02$. This price would include initial capital and other start-up costs. Total cost and cost increase estimates below assume Michigan's average annual plate production of 2.0 million. Annual plate production does not vary significantly from year to year.

## License Plate Production Cost Comparison

| Type | Cost Per <br> Plate | Total Annual Cost | Annual Cost Increase |
| :---: | :---: | :---: | :---: |
| Embossed (Existing) | $\$ 2.08$ | $\$ 4,160,000$ |  |
| Digital Printed | $\$ 3.02$ | $\$ 6,040,000$ | $\$ 1,880,000$ |

A cost study conducted by the University of Kentucky in 2017 compared costs of embossed and digital license plates and projected a similar cost impact to the state of Kentucky if it changed from embossed plate to digital printed plate production. ${ }^{2}$ The study found that Kentucky's current per plate cost for embossed plates was $\$ 1.79$ and estimated the per plate cost for a flat plate after the initial one-time cost for new equipment to be $\$ 1.96$. This cost difference was estimated to result in an annual increase of $\$ 124,000$.

Furthermore, the study conducted a survey of other states' per plate costs and found an average increase in costs for states which use digital printed technology. Thirty-four states responded to the survey, 15 of which used embossed plates, 11 used flat plates, and 7 used a hybrid system of embossed and flat. The study found that, on average, the cost to a state for an embossed plate was $\$ 1.98$, a flat plate was $\$ 3.89$, and a plate produced under a hybrid system was $\$ 3.08$.

These studies support DOS's 2023 survey of other states that reported that the cost of producing digitally printed plates were $33 \%$ to $79 \%$ higher than that of embossed plates.

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■ This analysis was prepared by nonpartisan House Fiscal Agency staff for use by House members in their deliberations and does not constitute an official statement of legislative intent.

[^1]
[^0]:    ${ }^{1}$ http://legislature.mi.gov/doc.aspx?mcl-18-1261

[^1]:    ${ }^{2}$ https://uknowledge.uky.edu/ktc researchreports/1560

