

Transport Permits and the Regulation of Vehicle Size, Weight, and Load

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BACKGROUND

Sections 716 through 726c (MCL 257.716 through 257.726c) within Chapter VI of the Michigan Vehicle Code (Public Act 300 of 1949) govern the size, weight, and load of vehicles and vehicle combinations operating on public highways. In general, these sections establish standard or “normal” size, weight, and load maximums, provide specific exceptions to the standard or normal maximums, and provide for the enforcement of the size, weight, and load maximums, including penalties for violations.

Examples of specific vehicle size, weight, and load provisions include:

Section 717, which establishes vehicle width maximums.

Section 719, which establishes vehicle height and length maximums.

Section 722, which establishes weight or load maximums.¹

The specific size, weight, and load maximums established in these sections are not absolute. As described further below, Section 725 (MCL 257.725) provides for operation of vehicles and vehicle combinations in excess of specific Michigan Vehicle Code size, weight, or load maximums through a permitting process. Specifically, Section 725 (1) states that “upon receipt of a written application and good cause being shown, a *jurisdictional authority* may issue a written *special permit* authorizing an

¹ With some limited exceptions, Michigan law does not establish gross weight limits for vehicles or vehicle combinations. Instead, Michigan law establishes axle weight limits. As a result, there are de facto gross vehicle weight limits based on those axle weight limits, as well as the number, function, and spacing of axles. In some instances, a vehicle could be within de facto weight limits for a specific vehicle combination, but could exceed Michigan weight limits through the distribution of the load across axles; i.e., the load on some axles could exceed legal limits. Michigan law limits the number of axles in any vehicle combination to 11. As a result, the de facto gross vehicle weight limit under Michigan law, based on a specific 11-axle truck tractor, semi-trailer, and trailer configuration is 164,000 pounds.

applicant to operate upon or remove from a highway maintained by that jurisdictional authority a vehicle or combination of vehicles that are of a size, weight, or load exceeding the maximum specified in [Chapter VI of the Michigan Vehicle Code] or otherwise not in conformity with this Chapter.”

As defined in Section 725(11), “jurisdictional authority” means the *state transportation department* (i.e., the Michigan Department of Transportation, or “MDOT”), a county road commission, or a *local authority* (i.e., a city or village) having jurisdiction over the highway upon which a vehicle is proposed to be moved under the permitting provisions of Section 725. For the balance of this paper, we will refer to the state transportation department as “MDOT” and jurisdictional authorities other than MDOT as “local road agencies.”

The “special permits” authorized under Section 725 are generally referred to as “transport permits.” All states have transport permit programs that provide for the movement of vehicles or vehicle combinations in excess of standard or normal size, weight, or load maximums.

Transport permits authorizing the movement of vehicles or vehicle combinations exceeding normal Michigan Vehicle Code size maximums are frequently described as “oversize permits.” Transport permits authorizing the movement of vehicles or vehicle combinations exceeding normal Michigan Vehicle Code weight or load maximums are frequently described as “overweight permits.” The terms “oversize” and “overweight” are somewhat misleading in that they suggest that the vehicles or vehicle combinations are in violation of Michigan law. However, in this context, the terms simply refer to vehicles or vehicle combinations that exceed normal Michigan Vehicle Code size, weight, or load maximums but which are legal to move on public highways under the terms and conditions of a transport permit.

Typically, a permit-eligible vehicle or vehicle combination that is both “oversized” and “overweight” is only required to obtain an overweight permit. Or to put it another way, vehicles or vehicle combinations authorized under an oversize permit may only be “oversized” in relation to Michigan Vehicle Code maximums. Vehicles or vehicle combinations authorized to operate under an overweight permit may be “oversized” as well as “overweight.”

Section 725, through the “good cause being shown” standard, effectively gives to MDOT broad authority to authorize, through a permitting process, the movement, on state trunkline highways, of vehicles or vehicle combinations in excess of specific Michigan Vehicle Code size, weight, and load maximums. Section 725 gives to local road agencies similar permitting authority with respect to vehicles and vehicle combinations operating on roads and streets under local jurisdiction. Section 725 provides limited guidance and few restrictions to MDOT and local road agency transport permitting programs.² The guidance is primarily limited to information required for the permit.

² Although Section 725 provides relatively little guidance with respect to transport permits, Sections 716, 717, and 719a include additional specific provisions regarding certain transport permits. Section 716 includes specific permitting requirements for wreckers. Section 717 includes specific permitting requirements for vehicles exceeding normal width maximums. Section 719a includes specific permit requirements related to the movement of mobile homes and park motor trailers.

Section 725 transport permit requirements are:

- That the application for a special permit “be on a form prescribed by the jurisdictional authority and [...] specifically describe the vehicle or vehicles and load to be operated or moved and the particular highways upon which the special permit to operate is requested.” (Subsection 2).
- That a special permit specify the trip or trips and date or dates for which it is valid. (Subsection 4). This subsection also authorizes a jurisdictional authority granting the special permit “to restrict or prescribe conditions of operation of a vehicle or vehicles, if necessary, to protect the safety of the public or to ensure against undue damage to the road foundations, surfaces, structures, or installations.” The subsection indicates that a special permit may be issued on an annual basis.
- That the special permit be carried in the vehicle or combination of vehicles to which it refers. (Subsection 7). The subsection also warns that “a person shall not violate any of the terms or conditions of the special permit.” Subsection 8 indicates that a person who violates “this section” – i.e., the permitting requirements of Section 725 – is responsible for a civil infraction.

The balance of this publication will focus on MDOT’s transport permitting program.

MDOT TRANSPORT PERMIT PROGRAM

According to a guidance document on the MDOT website, the purpose of the department’s transport permit program is “to permit the movement of necessary overweight and oversize vehicles or loads consistent with the following obligations:

- Protection of the motoring public from potential traffic hazards.
- Protection of highway surfaces, structures, and private property.
- Provisions for normal flow of traffic with a minimum of interference.”

In administering this program, MDOT has adopted permit requirements that are much more detailed and prescriptive than the limited general requirements of the Michigan Vehicle Code.

Section 725 of the Michigan Vehicle Code effectively establishes only two broad categories of transport permits: *Single-trip* permits and *Multiple-trip/Annual-basis* permits.³ However, under the broad authority granted by Section 725, MDOT has established a transport permitting program with a number of permit categories representing different types of vehicles or permit applicants. MDOT has also established specific criteria and/or permit requirements for each permit category.

³ MDOT’s website and transport permit forms refer to multiple-trip/annual-basis permits as “Extended permits.” However, for terminological clarity, this paper will use the terms used in Section 725 of the Michigan Vehicle Code: multiple-trip/annual basis permits.

Single-trip permit categories include: Equipment, House/Building, Mobile/Modular Home, Miscellaneous, and *Superload*.

Multiple-trip/Annual-basis permit categories include: Agricultural, Construction Equipment, Mobile/Modular Home - Truck, Pipe/Pole, Miscellaneous, Raw Forest Products in Upper Peninsula, Pavement Marking Truck, and Hydraulic Boat Lift Trailer.

Multiple-trip/Annual-basis transport permits may be issued for the relatively routine movement of certain types of loads, such as oversized construction equipment. These permits authorize the movement of permitted vehicles and vehicle combinations on any state trunkline highway, other than specific restricted trunkline segments. MDOT has established dimensional limits for *Multiple-trip/Annual-basis* permits; vehicles or vehicle combinations exceeding those dimensions are not eligible for *Multiple-trip/Annual-basis* permits and can only be authorized under a *Single-trip* permit.

Single-trip permits may be issued for up to a 5-day period. As the name suggests, *Single-trip* permits are valid for a single trip, although the return trip may be authorized if completed within the same 5-day period. *Single-trip* permits are route-specific. MDOT has also established dimensional limits for *Single-trip* permits. Vehicles or vehicle combinations exceeding those dimensional limits (16 feet in width, 15 feet in height, 150 feet in length) are considered *Superloads* and subject to more specific permitting requirements.⁴

For certain *Multiple-trip/Annual-basis* transport permits MDOT requires a separate permit for the truck (i.e., the pulling, or power unit), trailer, and each load that would cause the vehicle combination to exceed specific Michigan Vehicle Code size, weight, or load maximums. MDOT requires only a single permit for *Single-trip* movements. See **Table A**, for an example of how Normal and Special Permit maximums apply to the movement of one MDOT permit category, Construction Equipment.

For the most part, MDOT permit categories are not referenced or defined in the Michigan Vehicle Code. There is no definition or reference in the Michigan Vehicle Code for “Construction Equipment” or “Pavement Marking Truck” or “Superload.” In addition, the Michigan Vehicle Code does not provide specific criteria or permit requirements for these categories. There are no Administrative Rules governing this program.⁵ Many of the categories and the specific permit requirements for each category were established administratively by MDOT and are found only on the MDOT website:

- [Maximum Legal Truck Loadings and Dimensions \(T-1\)](#)
- [Movement of Oversize or Overweight Vehicles and Loads \(T-2\)](#)

⁴ MDOT’s transport permitting program defines “superload” only in terms of the dimensions of the vehicle or vehicle combination. Weight is not an element in the MDOT definition of superload.

⁵ Section 716 of the Michigan Vehicle Code authorizes MDOT to promulgate administrative rules “permitting and regulating the operation of a vehicle or vehicles of a size or weight that exceeds the size or weight limitations of this chapter [Chapter VI].” Section 716 also indicates that the Rules “may restrict or proscribe the conditions of operation of a vehicle or vehicles of a size or weight that exceeds the size or weight limitations in this chapter, if the restriction or proscription is necessary to protect the public safety or to prevent undue damage to a road foundation or surface, a structure, or an installation. The rules may provide for a reasonable inspection fee for an inspection of a vehicle or vehicles to determine whether their sizes and weights are in conformance with this act, and may require other security necessary to compensate for damage caused by the vehicle or vehicles described in this subsection.” MDOT has not promulgated administrative rules for the transport permit program.

TABLE A
 MDOT Transport Permit Program
 Maximum Vehicle/Vehicle Combination Dimensions
 for the Movement of Construction Equipment on State Trunkline Highways

	<u>Normal</u>	<u>Construction Extended *</u>	<u>Equipment Single-Trip **</u>
Width	96 inches or <i>102 inches</i>	150 inches	192 inches
Height	13 feet 6 inches	14 feet	15 feet
Length	59 feet or <i>65 feet</i>	85 feet	150 feet
Weight	Varies by axle	Varies by axle	Varies by axle

The higher normal width and length standards shown above in italics are for special designated state trunkline highways.

* “Extended” or *Multiple-trip/Annual-basis* permits allow the movement of permitted vehicles and vehicle combinations on any state trunkline highway, other than specific restricted trunkline segments. For Construction Equipment transport permits, MDOT currently requires separate permitting of the oversize load, the trailer, and the pulling unit. This MDOT requirement is the subject of House Bill 4644, as described on **page 18**.

** *Single-trip* permits are route-specific and may be valid for up to 5 days. For *Single-trip* permits, MDOT requires only one permit for the pulling unit to authorize the movement of an overweight, oversize, or overweight/oversize vehicle or vehicle combination; MDOT does not require separate additional permits for the load and/or the trailer.

Vehicles and vehicle combinations exceeding the *Single-trip* maximums are considered “superloads” and subject to additional specific permitting requirements.

Source: MDOT Guidance Document, Movement of Oversize or Overweight Vehicles and Loads (T-2)

MiTRIP ONLINE APPLICATION PROGRAM/MDOT PERMIT ADMINISTRATION

Since 2011, MDOT has accepted transport permit applications through an online permit application program, Michigan Transport Routing and Internet Permitting (MiTRIP), accessed through MDOT's Permit Gateway. Permit applications are no longer taken in person at Transportation Service Centers (TSCs). The permitting software program was developed by a private vendor and is used by Michigan and some other states under the terms of a service contract.

Permit applicants enter required vehicle and trip information into the MiTRIP system. With the exception of some routine types of permits, all permit applications are reviewed and either approved or denied by MDOT Permits Unit staff in Lansing. After MDOT approval of the application, and payment of applicable permit fees, the MiTRIP program generates a permit, with permit conditions and restrictions.

Permit applicants must print and carry the permit with the vehicle or vehicle combination that is the subject of the permit.

In addition to Lansing Permits Unit staff review and approval, *Superload* permit applications must also be approved by applicable TSC staff to ensure that the permitted vehicle movement won't conflict with construction projects, lane restrictions, or other hazards.

As noted above, Michigan regulates vehicle weight through axle weight limits, not gross vehicle weight limits. MDOT transport permits may authorize the movement of vehicles or and vehicle combinations in excess of those axle weight limits. However, overweight permits also establish specific limits and restrictions intended to protect pavement condition and bridge integrity. Specifically, no axle can exceed 24,000 pounds and loaded tire pressure can't exceed 700 pounds per inch of tire tread width.⁶

Before approving permits, MDOT Permits Unit reviews the permit application and ensures the routes shown do not include any restrictions for overweight vehicles.

MDOT-issued transport permits only authorize the movement of oversize or overweight/overload vehicles or vehicle combinations on state trunkline highways, under specific conditions identified in the permit. Vehicle owners or operators moving oversize or overweight/overload vehicles or vehicle combinations on local roads or streets must also obtain permits from each applicable local road agency with road or street jurisdiction. In addition, when moving vehicles or vehicle combinations

⁶ Vehicle combinations moving large construction or industrial equipment are sometimes considerably heavier than Michigan's de facto gross vehicle weight limit of 164,000 pounds. However, as authorized under an MDOT transport permit, and through the proper number and spacing of axles, the weight distribution across axles is still within specific permit limits. According to MDOT Permits Unit, during FY 2015-16 there were 71 overweight permits issued for vehicle combinations with a gross vehicle weight greater than 450,000 pounds. In FY 2016-17 there were 96 overweight permits issued for vehicle combinations in excess of 450,000 pounds GVW.

across state lines, vehicle owners or operators must also conform to applicable state laws and permitting requirements.⁷

The movement of some types of vehicles or loads could require multiple permits from multiple jurisdictions, in some cases jurisdictions with different permitting requirements. As a result, there are permit service companies that obtain necessary permits on behalf of vehicle owners and operators.

PERMIT FEES

Section 725 language governing transport permit fees is somewhat complicated. Subsection 4 authorizes a jurisdictional authority to require “a reasonable inspection fee and other security as that jurisdictional authority determines necessary to compensate for damages caused by the movement.” This language was part of Section 725 prior to 1997 and 1998 amendments establishing the current fee structure. [Section 716 includes similar language with respect to any prospective administrative rules related to transport permits.]

At the same time, other provisions of Section 725 establish a very specific permit fee structure based on several criteria: whether the permit is a *Single-trip* or *Multiple-trip/Annual-basis* permit; whether the permit is issued by MDOT or a local road agency; whether the permit is for an overweight/overload vehicle or for a vehicle that exceeds normal size maximums only.

For some permit fees, the section is prescriptive: “the fee shall be...”. For other permit fee categories the section establishes an upper limit for the fee: “the fee shall be not be more than...”.

The section authorizes MDOT to increase oversize permit fees in relation to a consumer price index. The department has never increased oversize permit fees.

Table B, on the following page, shows the current Section 725 permit fee structure.

In FY 2015-16, MDOT issued 106,253 transport permits authorizing the movement on state trunklines of vehicles in excess of normal size/weight/load maximums. Of these, 84,549 were *Single-trip* permits and 21,704 were *Multiple-trip/Annual-basis* permits. According to MiTRIP records, associated permit fee revenue totaled \$4.6 million. However, \$5.2 million was credited to the Transport permit account in the State Trunkline Fund. MDOT is in the process of trying to reconcile the difference between the MiTRIP data and accounting records.

In FY 2016-17, MDOT issued 108,779 transport permits authorizing the movement on state trunklines of vehicles in excess of normal size/weight/load maximums. Of these, 85,201 were *Single-trip* permits and 23,574 were *Multiple-trip/Annual-basis* permits. According to MiTRIP records, associated permit fee revenue totaled \$4.7 million. However, \$5.2 million was credited to the Transport permit account

⁷ The Michigan Center for Truck Safety publishes an annual Truck Driver’s Guidebook which includes descriptions of Michigan Vehicle Code size, weight, and load requirements.
<http://www.truckingsafety.org/GuidebooksMaterials.aspx>

in the State Trunkline Fund. MDOT is in the process of trying to reconcile the difference between the MiTRIP data and accounting records.

Transport permit fee revenue realized by local road agencies is not readily available.

TABLE B
Transport Permit Fees
Section 725, Michigan Vehicle Code

MDOT⁽¹⁾	<u>Current Law</u>	<u>HB 4644 (S-3)</u>
Weight/Load – Single Trip	\$50	No change
Weight/Load – Annual/Multiple Trip	\$100	No change
Oversize Only – Single Trip	\$15	No change
Oversize Only – Annual/Multiple Trip	\$30	No change
NEW – Construction Equipment ⁽²⁾	N/A	\$264
Local Road Agencies⁽³⁾	<u>Current Law</u>	<u>HB 4644 (S-3)</u>
Weight/Load – Single Trip	\$50	No change
Weight/Load – Annual/Multiple Trip	\$100	No change
Oversize Only – Single Trip	Limited to	No change
Oversize Only – Annual/Multiple Trip	Admin. cost ⁽⁴⁾	No change

Notes:

- (1) For permits issued by MDOT, Section 725 prescribes the amount of the permit fee: “*The fee charged ... shall be...*” Section 725 allows the department to increase “oversize only” permit fees once a year, by no more than the percentage increase in the urban consumer price index.
- (2) *Construction Equipment* would be a new class of transport permit established in House Bill 4644 (S-3).
See **page 18** for additional description of House Bill 4644.
- (3) For permits issued by local road agencies, Section 725 establishes permit fee maximums: “*the fee charged ... shall be not more than...*” Section 725 does not provide for fee increases by local road agencies.
- (4) Fees for permits related to movement of certain types of farm machinery are also limited to administrative cost.

MICHIGAN'S TRANSPORT PERMIT FEES – ANALYSIS

Basis for Fee-setting – One of the stated purposes of MDOT's transport permit program is "protection of highway surfaces, structures, and private property." Sections 716 and 725 of the Michigan Vehicle Code allow for the imposition of "a reasonable inspection fee and other security as that jurisdictional authority determines necessary to compensate for damages caused by the movement."

Transport permit fees are authorized, and limited, in Section 725 of the Michigan Vehicle Code. MDOT transport fees generate approximately \$4.6 million each year in revenue for credit to the State Trunkline Fund (STF).

Annual costs of MDOT's Permit Unit are approximately \$600,000, STF. These costs represents salaries and benefits of Permit Unit staff, as well as equipment, supplies, and contractual services.

The STF also helps support costs of the Michigan State Police, Commercial Vehicle Enforcement Division (MSP/CVED) through an interdepartmental grant appropriated in the Transportation budget. In FY 2016-17, MSP/CVED expended approximately \$8.0 million from the STF appropriation for commercial vehicle enforcement activities, including the enforcement of Michigan Vehicle Code size, weight, and load provisions.

In addition to the direct costs of MDOT permitting functions and the MSP/CVED enforcement program, vehicles and vehicle combinations that exceed Michigan Vehicle Code normal weight limits effectively consume additional state resources – in terms of pavement condition and bridge life – beyond what normal-weight vehicles consume. Some could argue that transport permit fee revenue should help offset the cost of pavement distress or reduced bridge life caused by some permitted "overweight" loads – not only for state trunkline highways, but also for roads and streets under local road agency jurisdiction.

There are a number of factors to be considered in establishing permit fees. However, the equitable recovery of the costs associated with asset consumption by vehicles exceeding normal weight or load limits is certainly one factor.

A December 2014 report by Purdue University included a detailed analysis of commercial truck usage of Indiana highways and related transport permit fees. The report was commissioned "to investigate the impacts of overweight divisible load permits on revenue, asset consumption, alternative transportation modes, and Indiana's economic development and the economic competitiveness of trucking operations [in Indiana] relative to other Midwestern states." The introduction of the report stated: "highway agencies have a fiduciary responsibility to carry out periodic reviews of their highway trucking policies and fee structures..."⁸

⁸ The report, "Impact of HB-1481 on Indiana's Highway Revenue Generation, Asset Degradation, Modal Distribution, and Economic Development and Competitiveness," published in December 2014, was prepared under the Joint Transportation Research Program of Purdue University. HB-1481 was a bill passed by the Indiana Legislature, and enacted into law, that dealt with Indiana's transport permit fee structure for overweight vehicle loads. The report is cited as FHWA/IN/JTRP-2014/XX. <http://docs.lib.purdue.edu/jtrp/1568/>

In addition to Indiana, within the last ten years two other neighboring states have performed systematic analysis of the impacts of trucking on state transportation infrastructure. In January 2009, the Ohio Department of Transportation issued a report, *Impacts of Permitted Trucking on Ohio's Transportation System and Economy*. This report focused on infrastructure impacts and discussed methods of allocating costs among highway users. Also in 2009, the University of Wisconsin and the Wisconsin Department of Transportation issued the *Wisconsin Truck Size and Weight Study* which considered the impacts of various vehicle combinations on pavement costs.⁹

In a March 2011, Performance Audit of MDOT's Real Estate Division, (Audit Report 591-0172-10), the Office of Auditor General recommended that MDOT "review its fee structure to help ensure that fee revenues are sufficient to cover all related costs." As considered by the audit report, "related costs" included the costs of road damage caused by overweight vehicles. In response, the department concurred with the recommendation and stated that by July 1, 2011, it would "review the existing permit fee cost structure and make an assessment with respect to an increase in permit fees."

The department has not performed a systematic analysis of the current transport permit fee structure. Michigan's current transport fee structure has been in place since 1998.

Cross-state Comparison of Permit Fees – It is hard to make cross-state comparisons of permit fees. While nominal permit fees may be higher or lower from one state to another, the net cost to applicants, and state permit fee revenue, also depend on how each state administers its permit program: i.e., who is required to obtain permits, and how many permits are required for the same vehicle movement. Some states require permits for vehicles or vehicle combinations that would be within normal load maximums in Michigan. Nonetheless, Michigan's transport permit fees appear to be lower than many other states. Both Indiana and Illinois transport permit fees are based on both the weight of the permitted load and length of the move.

A cross-state comparison of transport permit fees should also consider baseline registration and motor fuel taxes paid by the commercial trucking industry.

ENFORCEMENT: CIVIL INFRACTIONS/CIVIL FINES

The Michigan State Police, Commercial Vehicle Enforcement Division (MSP/CVED) is responsible for enforcement of Michigan Vehicle Code size, weight, and load provisions on state highways. According to annual MSP/CVED reports, the MSP issued 4,877 overweight citations in FY 2016-17. Related fine revenue totaled \$4.6 million.

Enforcement activity, including the imposition of fines, is one method of ensuring compliance with Michigan's laws governing vehicle size, weight, and load. Fines could also be used to offset the cost, in terms of pavement damage and reduced bridge life, of noncompliant vehicle operators.

⁹ These state reports are referenced in an October 2011 report by a Transportation Research Board, National Cooperative Highway Research Board report, *Directory of Significant Truck Size and Weight Research*.

However, fine revenue from MSP/CVED citations is not credited to transportation funds. Violations of size/weight/load provisions of the Michigan Vehicle Code are civil infractions, and related fines are civil fines.

Civil fines for traffic citations, including for violations or Michigan Vehicle Code size, weight, and load provisions, are assessed and distributed to local libraries. Courts in the counties in which the citations are issued forward civil fine revenue to the applicable county treasurer for distribution to libraries within the county. The provision earmarking civil fine revenue for libraries was added to the Michigan Vehicle Code in 1978 when a number of previously criminal violations were downgraded to civil violations. [http://house.michigan.gov/hfa/PDF/Judiciary/Traffic Citation Revenue Memo.pdf](http://house.michigan.gov/hfa/PDF/Judiciary/Traffic_Citation_Revenue_Memo.pdf)

TABLE C
Michigan State Police/Commercial Vehicle Enforcement
Five-Year History of Overweight/Oversize Vehicle Enforcement Actions

<u>Fiscal Year</u>	<u>Citations</u>	<u>Estimated Fine Revenue</u>
2013	5,702	\$5,103,480
2014	5,032	\$4,821,327
2015	5,439	\$5,345,109
2016	5,313	\$5,331,717
Four-Year Average:	5,372	\$5,150,408
2017	4,877	\$4,622,608

Source: MSP/CVE Division Annual Weight Enforcement Reports; e-mail correspondence with MSP/CVED regarding correction of FY 2015 and FY 2016 report data. Fine revenue figures are based on citations written by MSP/CVED officers. Because fines may be reduced or waived by courts, actual fine revenue may be less than these reported figures.

FY 2016-17 citations and fine revenue were less than the previous four years and less than the four-year average. MSP/CVED staff indicate that lower figures for FY 2016-17 were due to the use of MSP/CVED resources to integrate probationary motor carrier officers who graduated on January 7, 2017 into the Division, and efforts to hire and train recruits for a motor carrier officer academy that started in August of 2017.

In recent years, several bills have been enacted into law amending Section 724 of the Michigan Vehicle Code, the section that established penalties for violation of Section 722 weight limits, as well as penalties for violation conditions of an overweight transport permit under Section 725. Those bills have tended to reduce or cap fines associated with certain overweight citations. See the House Fiscal Agency analysis of House Bill 4142 of the 2015-2016 Legislative Session, enacted as Public Act 450 of 2016. <http://legislature.mi.gov/doc.aspx?2015-HB-4142>

CONCLUSION

The Michigan Vehicle Code establishes size, weight, and load maximums for vehicles and vehicle combinations operating on Michigan's public highways. However, those specific size, weight, and load maximums are not absolute. Section 725 of the Michigan Vehicle Code provides for operation of vehicles and vehicle combinations in excess of specific size, weight, or load maximums through a permitting process. The language in Section 725 grants to MDOT with respect to state trunkline highways, and local road agencies with respect to roads and streets under local jurisdiction, broad authority to establish transport permitting programs.

The stated purpose of MDOT's transport permit program is "to permit the movement of necessary overweight and oversize vehicles or loads consistent with the protection of the motoring public from potential traffic hazards; the protection of highway surfaces, structures, and private property; and provision for normal flow of traffic with a minimum of interference."

However, the department does not appear to have reviewed the effectiveness of its transport permit program in meeting those stated program objectives. In addition, there is no record that the department has reviewed the transport permit fee structure to determine, among other things, whether permit fee revenue covers related program costs.

The effective regulation of the weight of vehicles operating on public roads is particularly important with respect to the protection of highway pavement surfaces and bridge structures.

As described in the body of this paper, Michigan has established weight maximums by vehicle axle. There is no general gross vehicle weight maximum set in the Michigan Vehicle Code. Nonetheless, Michigan's axle weight limits, as distributed across a specific 11-axle truck tractor, semi-trailer, and trailer configuration, allow for a normal legal gross vehicle weight of up to 164,000 pounds.

Michigan's de facto gross vehicle weight (GVW) limit of 164,000 pounds is considerably higher than the federal standard for 80,000 pounds GVW for vehicles operating on the Interstate Highway System and is higher than the normal gross vehicle weight maximum of other states. Michigan's gross vehicle weight maximums are sometimes cited as a factor in highway pavement distress and compromised bridge structure. However, while Michigan's de facto gross vehicle limits are higher than other states, Michigan's axle weight limits are actually lower than the federal Interstate standards and lower than most other states.

Discussions of Michigan's vehicle weight limits, including comparisons with federal weight regulations and the vehicle weight limits imposed by other states, are generally limited to a discussion of *normal* weight limits. What's not often acknowledged is the fact that Michigan and all other states authorize the movement of vehicles in excess of normal weight limits through a permitting process, including vehicles in excess of 164,000 pounds GVW.

In considering Michigan's regulation of vehicle size, weight, and load, the Legislature must weigh a number of competing factors, including the costs and benefits of alternative regulatory programs. Among factors to be considered is the question of whether regulatory programs, including transport

permitting programs, are effective in meeting stated programs goals – in particular the goal of protecting highway pavement condition and bridge structural integrity.

A review of the transport permit program should encompass permit fees to determine if fee revenue is sufficient to recover costs of program administration and enforcement, as well as the costs of road and bridge damage caused by overweight vehicles. In addition, the permit fee structure should be reviewed to determine whether fees equitably allocate costs among highway uses.

Finally, a review of Michigan's vehicle size, weight, and load regulatory programs should consider the effectiveness of enforcement programs, including the Commercial Vehicle Enforcement program of the Michigan State Police. Such a review should consider whether civil fines and other enforcement actions are sufficient to deter operators from violating Michigan Vehicle Code size, weight, and load provisions.

APPENDICES

Appendix A

Authority of Federal Law

In order to facilitate interstate commerce, and to reduce damage to roads and bridges, federal law, specifically Part 658 of Title 23 of the Code of Federal Regulations (23 CFR 658), imposes on states certain national standards with respect to truck size and weight. Michigan's regulation and enforcement of vehicle size, weight, and load standards are guided to a large degree by the requirements of federal law.

Federal Vehicle Weight Limits

Section 658.17 of Title 23 CFR (23 CFR 658.17) establishes maximum weight for vehicles and vehicle combinations on Interstate Highways:

Federal vehicle weight maximums on the Interstate Highway System are:

Single Axle:	20,000 pounds
Tandem Axle:	34,000 pounds
Gross Vehicle Weight:	80,000 pounds

Vehicle length and axle spacing are as important as axle weight in protecting bridge integrity. As a result, the above maximums are also subject to the federal Bridge Formula. As described on the Federal Highway Administration (FHWA) website, the federal Bridge Formula "is a mathematical formula designed to protect bridges by establishing a maximum weight for all groups of two or more consecutive axles on a vehicle." And: "Congress enacted the Bridge Formula in 1975 to limit the weight-to-length ratio of a vehicle crossing a bridge. This is accomplished either by spreading weight over additional axles or by increasing the distance between axles."¹⁰

Vehicles operating on the Interstate Highway system must be within axle weight limits, gross vehicle weight limits, and the limits as calculated using the federal bridge formula. However, federal law allows higher limits in some states through "grandfather" provisions.

Although federal regulations limit gross vehicle weight to 80,000 pounds, Michigan's axle-based weight laws effectively allow up to 164,000 pound gross vehicle weight on a specific 11-axle configuration. Michigan's higher weight limits were "grandfathered" in federal law. Section 127(a) of 23 U.S.C. allows state weight limits in excess of normal federal weight limits on the Interstate System under certain circumstances. Michigan is authorized to use weight limits in effect as of May 1, 1982.

¹⁰ Compliance with Bridge Formula weight limits is determined by using the following formula:

$$W = 500 \left[\frac{LN}{N-1} + 12N + 36 \right]$$

W = the overall gross weight on any group of two or more consecutive axles to the nearest 500 pounds.

L = the distance in feet between the outer axles of any group of two or more consecutive axles.

N = the number of axles in the group under consideration.

This formula is incorporated into Michigan law at Section 722 of the Michigan Vehicle Code (MCL 257.722).

Although Michigan's normal effective or de facto gross vehicle weight limit of 164,000 pounds is higher than the federal Interstate maximum of 80,000 pounds, Michigan's axle weight limits are lower. Michigan vehicles and vehicle combinations still have to comply with the federal bridge formula.

Federal Vehicle Size (Width) Limits

Section 658.15 of 23 CFR prohibits states from imposing a width limitation of more than 102 inches for vehicles operating on the National Network. The National Network includes the Interstate Highway System and certain other highways designated as capable of safely handling larger commercial motor vehicles, as certified by states to the FHWA.

Federal Authorization of State Transport Permitting Programs

Federal law also authorizes state transport permit programs. Section 658.17(h) of 23 CFR provides that "States may issue special permits without regard to the axle, gross, or Federal Bridge Formula requirements for nondivisible vehicles or loads."

Section 658.15 of 23 CFR authorizes states to grant special use permits to vehicles in excess of normal vehicle width standards.

Federal Pre-emptions of State Size/Weight/Load Limitations

As noted above, Sections 658.17 and 658.15 of 23 CFR establish specific vehicle weight maximums, and vehicle width maximums, respectively – subject to grandfather provisions and state permitting programs. These federal regulations also prohibit states from enacting laws that would prohibit the operation of vehicles at the federal maximums.

Section 658.17 prohibits states from imposing vehicle weight limits on the Interstate Highway System of less than the maximums described above. Section 658.15 prohibits states from imposing width limits of less than 102 inches for vehicles operating on the National Network. In addition, Section 658.13 prohibits states from imposing specific length limits for certain vehicles and vehicle combinations on the National Network.

These sections of Part 658 23 CFR effectively create national standards for vehicles or vehicle combinations operating on the Interstate Highway system and/or the National Network and prohibit states from imposing more restrictive standards.

Exceptions and Variances

The above descriptions are a highly condensed summary of 23 CFR 658. Part 658 vehicle size and weight provisions include a number of exceptions and variances for particular states, routes, vehicles, or operations.

Federal Reporting Requirements

Part 657 of 23 CFR establishes federal requirements for the administration of state size and weight enforcement programs. Each year, states must provide the FHWA with both a plan and a certification of accomplishment of planned vehicle size and weight enforcement activities. Failure to certify, or to adequately enforce state laws affecting maximum size and weight on Federal-Aid highways, can result in penalties, specifically, a reduction of all Federal-Aid highway funds to the state.

The Michigan State Police, Commercial Enforcement Division, is responsible for submitting the annual state certification letter to the FHWA.

It is frequently stated that Michigan law allows the highest truck weights in the nation. It's more accurate to state that Michigan's *normal* effective or *de facto* gross vehicle weight limit of 164,000 pounds is higher than the federal Interstate maximum of 80,000 pounds and higher than the *normal* legal gross vehicle weights of most other states. However, many states authorize higher-than-normal weights under "grandfather" provisions of federal law. In some cases these higher weight limits apply to specific products or specific industries. In addition, all states authorize the movement of vehicles in excess of normal weight limits through a permitting process. A 134,000 pound GVW vehicle combination that would operate under normal legal weight limits in Michigan may still operate in parts of Indiana through a special Indiana transport permit for "Michigan Trains."

Appendix B

Enrolled House Bill 4644 (S-3)

House Bill 4644 (S-3), as enrolled, would amend Section 725 of the Michigan Vehicle Code to change MDOT's current requirements with respect to *Multiple-trip/Annual-basis* transport permits issued for the movement of oversized and/or overweight *construction equipment* – specifically, the MDOT requirement that applicants obtain separate permits for the truck (pulling or power unit), trailer, and each load (e.g. piece of equipment) that would cause a vehicle or vehicle combination to exceed specific Michigan Vehicle Code size, weight, or load maximums.

Representatives of the construction and timber industries have indicated that the department's current practice requires industry operators to obtain multiple permits – a permit for each trailer and each piece of equipment transported – in addition to a permit for the power unit.

House Bill 4644 (S-3) would require the department to allow applicants, under specific conditions defined in the bill, to obtain an annual permit for the movement of *construction equipment* in excess of Michigan Vehicle Code size, weight, or load maximums. Specifically, the bill directs that the department issue a permit for the power unit “without requiring a separate permit for each individual piece of equipment carried by that power unit.”

As a result, under House Bill 4644 (S-3), an annual *construction equipment* transport permit would be required only for the power or pulling unit; additional permits would not be required for each additional piece of equipment that caused to vehicle combination to exceed Michigan Vehicle Code size and/or load maximums. These provisions would apply only to the movement of construction equipment. [The bill does not define the term “construction equipment.” In addition, the bill is silent with respect to the treatment of trailers in the vehicle combination, although the department indicated that it would not require separate permits for trailers.]

The bill would establish a fee of \$264 for annual construction equipment permits. This fee would effectively replace the current MDOT *Multiple-trip/Annual-basis* permit fee for construction equipment of \$30 for oversize-only permits, and \$100 for overweight/overload permits.

The enacting provisions of the bill indicate that the bill becomes effective 90 days after it is enacted into law. At the same time, the bill indicates that the provisions regarding annual *construction equipment* permits, and the related *construction equipment* fee of \$264, become effective “not later than two years after effective date [of the bill, as enacted].”

The proposed *construction equipment* permit fee of \$264 is higher than current MDOT transport permit fees. However, the bill would reduce the number of permits issued by MDOT. The net impact would likely reduce State Trunkline Fund (STF) revenue. The annual revenue loss would depend on how many fewer transport permits were issued and how the reduction in permits was distributed between oversize and overweight permits.

Based on FY 2016-17 permit activity, we estimate that House Bill 4644 (S-3) would reduce STF revenue by approximately \$491,000. (See **Table D**). The \$491,000 revenue reduction would be an annual reduction as compared to the current baseline. In addition, the department estimates the costs

associated with reprogramming MiTRIP software to accommodate the changes proposed in the bill to be approximately \$100,000 (one-time).

Although the bill would reduce STF revenue, some applicants for *construction equipment* permits, would experience an increase in fee cost as compared to MDOT’s current permitting requirements. The amount of the fee decrease or increase for particular applicants would depend on the number of construction equipment transport permits the applicant had previously been required to obtain and whether those permits were oversize or overweight permits.

The bill would have no impact on local road agency transport permitting programs or related permit fees assessed by local road agencies.

TABLE D
 Construction Equipment Multiple-trip/Annual-basis Transport Permits
 FY 2016-17 Actual Compared to Estimated Impact of House Bill 4644 (S-3)

	<u>Permits Issued</u>	<u>Fee Revenue</u>	<u>Average</u>
Current Law			
Construction - Truck	2,986	\$252,076	\$84.42
Construction - Trailer	2,519	216,411	\$85.91
Construction - Load	<u>10,372</u>	<u>810,945</u>	\$78.19
Total	15,877	\$1,279,432	
House Bill 4644 (S-3)			
Construction - Truck	2,986	\$788,304	\$264.00
Construction - Trailer	N/A	N/A	
Construction - Load	<u>N/A</u>	<u>N/A</u>	
Total	2,986	\$788,304	
Difference		(\$491,128)	

Source: MiTRIP monthly reports of permit activity, FY 2016-17.

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NOTE: This report was written by William E. Hamilton, Senior Fiscal Analyst. Kathryn Bateson, Administrative Assistant, prepared the report for publication.



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