

Wisconsin Statewide Truck Parking Study Final Report

Matthew Junak, PE, HNTB Corporation
Louise Jennings, GISP, HNTB Corporation
Jason Matson, PE, HNTB Corporation
Zixiong Wang, HNTB Corporation
Tess Szatkowski, HNTB Corporation
Jack Miller, HNTB Corporation
Tumlumbe Juliana Chengula, HNTB Corporation
Teona Marko, AICP, HNTB Corporation
Laura Davis, AICP, HNTB Corporation
Jerry Shadewald, PE, PTOE, HNTB Corporation
Lizzie Brackett, AICP, HNTB Corporation
Claire Trettin, HNTB Corporation
Amblily Pankaj, HNTB Corporation
Nicole McCall, Cambridge Systematics
Jack Glodek, Cambridge Systematics
Christina Leach, AICP, Cambridge Systematics
Priya Chelluboyina, Cambridge Systematics
Pearl Liu, Cambridge Systematics
Eliza Nastasi, Cambridge Systematics
Ray Huang, PhD, Cambridge Systematics

WisDOT ID no. 0092-25-10

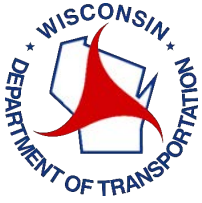
June 30, 2026



WISCONSIN DOT
PUTTING RESEARCH TO WORK

TECHNICAL REPORT DOCUMENTATION PAGE

1. Report No. WisDOT 0092-25-10	2. Government Accession No.	3. Recipient's Catalog No.	
4. Title and Subtitle Wisconsin Statewide Truck Parking Study		5. Report Date June 30, 2026	
		6. Performing Organization Code	
7. Author(s) Matthew Junak, PE, HNTB Corporation; Louise Jennings, GISP, HNTB Corporation; Jason Matson, PE, HNTB Corporation; Zixiong Wang, HNTB Corporation; Tess Szatkowski, HNTB Corporation; Jack Miller, HNTB Corporation; Tumlumbe Juliana Chengula, HNTB Corporation; Teona Marko, AICP, HNTB Corporation; Laura Davis, AICP, HNTB Corporation; Jerry Shadewald, PE, PTOE, HNTB Corporation; Lizzie Brackett, AICP, HNTB Corporation; Claire Trettin, HNTB Corporation; Ambilily Pankaj, HNTB Corporation; Nicole McCall, Cambridge Systematics; Jack Glodek, Cambridge Systematics; Christina Leach, AICP, Cambridge Systematics; Priya Chelluboyina, Cambridge Systematics; Pearl Liu, Cambridge Systematics; Eliza Nastasi, Cambridge Systematics; Ray Huang, PhD, Cambridge Systematics		8. Performing Organization Report No. If applicable, enter any/all unique numbers assigned to the performing organization.	
9. Performing Organization Name and Address HNTB, 1111 Main St, Unit 2500, Kansas City, MO 64105		10. Work Unit No.	
		11. Contract or Grant No. Policy 0092-25-10	
12. Sponsoring Agency Name and Address Wisconsin Department of Transportation Research & Library Unit 4822 Madison Yards Way Room 911 Madison, WI 53705		13. Type of Report and Period Covered Final Report - May 1, 2026 - June 30, 2026	
		14. Sponsoring Agency Code	
15. Supplementary Notes N/A			
16. Abstract This study evaluates statewide truck parking conditions in Wisconsin. The analysis integrates public and private facility data, truck GPS data, and safety datasets to assess existing parking supply, quantify current demand, identify supply-demand gaps, and forecast future needs through 2035. Results indicate that while total statewide parking supply may appear sufficient, significant localized deficiencies exist along major interstate corridors, particularly I-90/I-94, I-39, and I-41, where demand approaches or exceeds capacity and contributes to undesignated parking and increased crash risk. Forecasts show these deficiencies are expected to increase over time. The study concludes that a coordinated approach combining infrastructure investment, operational improvements, technology deployment, policy alignment, and public-private partnerships will be necessary to improve truck parking availability, enhance safety, and support efficient freight movement across Wisconsin.			
17. Key Words Truck parking; Freight transportation; Commercial motor vehicles; Parking demand; Parking supply; Illegal parking; Undesignated parking; Traffic safety; Hours of service; Parking capacity; Freight corridors; Interstate highways; Transportation planning; Advanced traveler information systems; Geographic information systems; Travel demand forecasting; Highway infrastructure; Public private partnerships; Freight mobility; Travel demand modeling; Rest areas; Weigh stations;		18. Distribution Statement No restrictions. This document is available through the National Technical Information Service. 5285 Port Royal Road Springfield, VA 22161	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 112	22. Price Not applicable



Wisconsin Department of Transportation

Policy and Safety First Research Programs

Disclaimer for Reports & Publications

1 Disclaimer

This research was funded by the Wisconsin Department of Transportation and the Federal Highway Administration under Project 0092-25-10. The contents of this report reflect the views of the authors who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views of the Wisconsin Department of Transportation or the Federal Highway Administration at the time of publication.

This document is disseminated under the sponsorship of the Department of Transportation in the interest of information exchange. The United States Government assumes no liability for its contents or use thereof. This report does not constitute a standard, specification or regulation.

The United States Government does not endorse products or manufacturers. Trade and manufacturers' names appear in this report only because they are considered essential to the object of the document.



Contents

1	Disclaimer.....	3
	Contents.....	i
	Executive Summary	6
	Importance of Truck Parking.....	6
	Existing Truck Parking Supply.....	7
	Truck Parking Demand.....	8
	Supply and Demand Gap Analysis.....	9
	Forecasted Future Truck Parking Demand.....	9
	Safety Assessment.....	11
	Recommendations	12
2	Literature Review	15
2.1	National Policy Framework and Legislative Actions (2010-2025).....	15
2.1.1	MAP-21 (2012) – Jason’s Law	15
2.1.2	FAST Act (2015) – Continuing Support Through Freight Programs.....	16
2.1.3	Infrastructure Investment and Jobs Act (2021) – Recent Funding Landscape.....	17
2.1.4	Other Legislative Developments (2010-2025)	17
2.2	USDOT and FHWA Programmatic Initiatives (2010-2025)	18
2.2.1	National Coalition of Truck Parking (Formation and Activities).....	18
2.2.2	Federal Guidance on Funding and Grants for Truck Parking.....	19
2.2.3	National Studies, Data, and Freight Planning Initiatives	20
2.3	FHWA Truck Parking Development Handbook – Key Highlights.....	25
2.3.1	Truck Parking Demand: Factors and Estimation Methodologies	26
2.3.2	Site Evaluation and Design Guidance for Truck Parking Facilities.....	27
2.3.3	Safety and Stakeholder Considerations	27
2.3.4	Cost Benefit Analysis and Case Studies.....	28
2.4	Summary.....	29
3	Inventory.....	30
3.1	Data Sources.....	30
3.1.1	Public Datasets.....	30
3.1.2	Private Data Sets	30
3.2	Inventory Compilation	30



TECHNICAL REPORT

3.2.1	Public Parking Facilities.....	31
3.2.2	Commercial Truck Parking Facilities.....	31
3.2.3	Designated and Other Informal Lot Digitization.....	32
3.3	Data Processing and Quality Control.....	32
3.3.1	Validation of Geofences Utilizing Imagery	32
3.3.2	Cross-Checking Across Sources	32
3.3.3	Capacity Assumptions	32
3.3.4	Summary of Validation Approach.....	32
3.4	Summary of Findings.....	33
3.5	Limitations.....	36
4	Demand and Forecasting	37
4.1	Demand Analysis.....	37
4.1.1	Data Sources and Processes	37
4.2	Truck Parking Demand Results	43
4.2.1	Designated Demand	43
4.2.2	Undesignated Demand.....	49
4.2.3	Gap Analysis	52
4.2.4	Other Truck Parking Statistics.....	54
4.3	Forecasted Truck Parking Demand	56
4.3.1	Forecasted Designated Demand	57
4.3.2	Forecasted Undesignated Demand	62
5	Safety.....	65
5.1	Data Sources and Processing.....	65
5.2	Data Cleaning and Processing.....	66
5.2.1	Crash Analysis	66
5.2.2	Designated Parking Crash Analysis	68
5.2.3	Undesignated Parking Crash Analysis	71
5.2.4	Crash Patterns	73
5.2.5	Spatial Crash Patterns	73
5.2.6	Parking Status and Crash Exposure	73
5.3	Citation Analysis	74
5.4	Warnings Analysis.....	76
5.4.1	Warning Behavior Analysis.....	78
5.5	Inspections Analysis.....	78



5.5.1	Inspection Type Analysis.....	82
5.6	Overall Network.....	83
6	Recommendations.....	85
6.1	Overview of Truck Parking Deficiencies and Future Needs.....	85
6.2	Corridor Prioritization Approach.....	87
6.3	Recommended Strategies.....	87
6.3.1	Recommendation #1: Targeted Infrastructure Investments.....	87
6.3.2	Recommendation #2: Technology and Operations Enhancements.....	89
6.3.3	Recommendation #3: Strengthening Coordination with Private Sector	90
6.3.4	Recommendation #4: Address Policy and Land Use Barriers	90
6.3.5	Recommendation #5: Continued Safety Enhancements.....	91
6.4	Integration with Existing and Programmed Projects.....	91
6.5	Implementation and Funding Considerations.....	91
Appendix A: ArcGIS Online Resources.....		94
Appendix B: Stakeholder Outreach		96

Tables

Table 1: WisDOT Region Counties.....	7
Table 2: Digitization Results	33
Table 3: Gap Analysis by Region, Peak Demand Hour (1 AM).....	54
Table 4: CAGR Values and Growth Factors by Area Type and Facility Type.....	57
Table 5: Parking Facilities Shifting Demand Categories	58
Table 6: Total Parked CMV Crashes within Wisconsin	68
Table 7: Percentage Breakdown of Total Crashes by Severity.....	68
Table 8: Designated Parking Crashes.....	69
Table 9: Undesignated Parking Crashes	71
Table 10: Crashes: I-94 (Madison to Hudson) vs Project Area.....	73
Table 11: CMV Crashes by Parking Status	74
Table 12: Violation Code Grouping	78
Table 13: Violation Breakdown.....	79
Table 14: Violation Definitions and Counts.....	82



Figures

Figure 1: Study Boundary and WisDOT Regions	6
Figure 2: 2024 Gap Analysis by Segment (1AM)	10
Figure 3: Priority Improvement Locations.....	12
Figure 4: Reported Safety Issues Percentages (2019).....	16
Figure 5: Sum of Total Spaces by State and Year.....	21
Figure 6: Ratio of Private to Public Spaces by State and Year	22
Figure 7: Sum of All Spaces per 100 Miles of National Highway System by State and Year	23
Figure 8: Sum of All Spaces per 100K Daily Truck VMT by State and Year.....	23
Figure 9: Percent of Drivers Reported Problems Finding Safe Parking.....	24
Figure 10: Identified Truck Parking Facilities	34
Figure 11: Identified Truck Parking Stalls per Facility	35
Figure 12: Truck Parking Classifications at a Private Facility	38
Figure 13: Truck Parking Classifications at a Public Facility	39
Figure 14: TPIMS vs. LOCUS Hourly Counts.....	41
Figure 15: Month-by-Month Variation of Truck Parking Demand	42
Figure 16: Day-of-the-Week Variation of Truck Parking Demand	42
Figure 17: Hour-by-Hour Daily Designated Demand.....	43
Figure 18: Hour-by-Hour Daily Designated Demand, Public vs. Private	44
Figure 19: Peak Hour Utilization by Facility, Public vs. Private (1 AM).....	45
Figure 20: Peak Hour Utilization by Stalls, Public vs. Private in 1 AM.....	46
Figure 21: Peak Hour Demand at Public Parking Facilities 1 AM in 2024.....	47
Figure 22: Peak Hour Demand at Private Truck Parking Facilities 1 AM in 2024.....	48
Figure 23: Hour-by-Hour Daily Undesignated Demand.....	49
Figure 24: Undesignated Parking Demand at 1 AM in 2024	50



Figure 25: Undesignated Parking Demand at 9 AM in 2024	51
Figure 26: Gap Analysis by Segment 1 AM in 2024	53
Figure 27: Parking Duration at Designated Facilities	55
Figure 28: Truck Stops by Industry.....	56
Figure 29: Parking Facilities Demand Categories Over Time	58
Figure 30: Forecasted Demand at Public Designated Facilities at 1 AM in 2035.....	60
Figure 31: Forecasted Demand at Private Designated Parking Facilities at 1 AM in 2035	61
Figure 32: Undesignated Demand at 1 AM in 2035	63
Figure 33: Undesignated Demand at 9 AM in 2035	64
Figure 34: Heatmap of Parked CMV Crash Occurrences (2017–June 2025).....	67
Figure 35: Parked CMV Crashes at Designated Truck Parking Locations (2017–June 2025).....	70
Figure 36: Parked CMV Crashes in Undesignated Truck Parking Area (2017 – June 2025)	72
Figure 37: CMV Crashes by Parking Status	74
Figure 38: Heatmap of CMV Parking Citations (2015 - 2025).....	75
Figure 39: Heatmap of Issued CMV Parking Warnings (2015 - 2025).....	77
Figure 40: Designated Parking Area Inspection Violations by Type (2024 – 2025)	80
Figure 41: Undesignated Parking Area Inspection Violations by Type (2024 – 2025)	81
Figure 42: Total Count of Safety Incident Occurrences by Segment	84
Figure 43: Priority Improvement Locations	86

Executive Summary

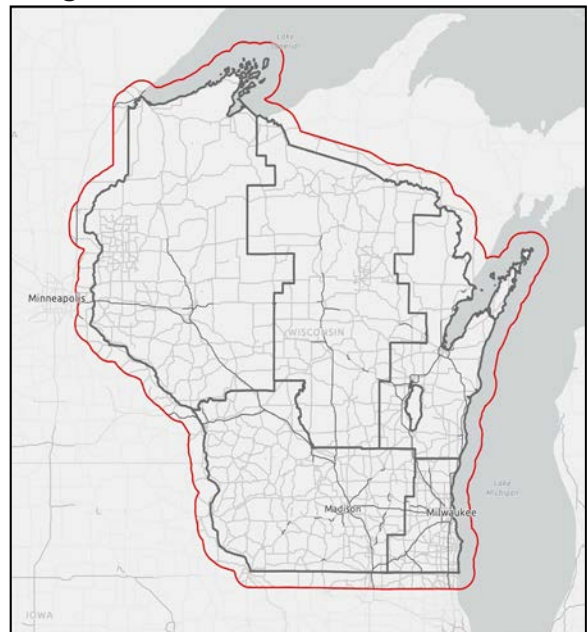
Importance of Truck Parking

Freight movement is critical to Wisconsin's economy, with trucks transporting 489 million tons worth \$620 billion in 2023.¹ As the primary method for moving goods, trucking relies on highways and accessible parking. Reliable access to truck parking is an essential component of freight system operations, allowing drivers to comply with regulatory requirements while maintaining efficient movement of goods. Federal Hours-of-Service (HOS) regulations limit how long drivers can operate before taking mandatory rest breaks. These requirements make access to timely parking essential, especially during overnight and early morning hours. While Federal HOS regulations influence the demand for parking, inadequate truck parking leads to other challenges, including:

- **Productivity Loss** – When designated truck parking is full, drivers may stop earlier than planned or spend additional time and fuel searching for parking, reducing productivity and disrupting delivery schedules.
- **Undesignated Parking** – When designated truck parking is not available, drivers resort to parking on highway shoulders, ramps, and frontage roads, resulting in roadway degradation and exposure to safety and security risks. Undesignated parking can also limit shoulder use, restrict emergency access, and complicate routine roadway maintenance.
- **Safety** – Undesignated truck parking creates safety risks for both truck drivers and the public. Parked trucks in undesignated areas can reduce sight distances, interfere with traffic, and increase parked truck crash risks, particularly on high-speed corridors. Truck driver safety has received increased national attention since the enactment of Jason's Law in 2012, which highlighted safety risks associated with insufficient truck parking and prompted greater focus on expanding safe parking options.

To address these challenges, the Wisconsin Department of Transportation (WisDOT) conducted the Wisconsin Statewide Truck Parking Study to collect and analyze data on truck parking supply and demand and forecast future needs.

Figure 1: Study Boundary and WisDOT Regions



Source: WisDOT (2025), Esri (2025)

¹ <https://wisconsindot.gov/Pages/about-wisdot/who-we-are/dtsd/dtsd-region-offices.aspx>



The study included privately-owned truck parking facilities within one mile of all interstate highways, U.S. highways, and state highways in Wisconsin and extending 15 miles into adjacent states. Additionally, the study included public facilities owned or maintained by WisDOT such as Safety Rest Areas (SRAs) and Weight Enforcement Facilities (SWEFs).

The primary goals of the study were to:

- Assess current truck parking supply;
- Quantify existing and future truck parking demand;
- Identify safety impacts associated with truck parking shortages; and
- Support data-driven investment and policy decisions.

Existing Truck Parking Supply

Wisconsin operates a network of public truck parking facilities including SRAs and SWEFs. These locations typically provide basic amenities such as restrooms, vending machines and designated truck parking stalls, but do not have fuel and food services. For the entire project area, including the border areas of adjacent states, these account for 51 total public truck parking locations and 1,301 estimated total stalls.² A list of counties located within each region are found in Table 1 below.

In addition to public facilities, the majority of truck parking supply is provided by privately owned and operated truck stops and travel centers. These facilities generally offer a broader range of amenities, including fuel, food service, restrooms, showers, repair facilities, and designated truck parking areas. Such amenities are not available at public truck parking locations and make private facilities critical to supporting long-haul freight movement and driver safety. Within the Project Area, there were identified 237 private truck parking facilities, accounting for an estimated 8,094 truck parking stalls.

Table 1: WisDOT Region Counties

WisDOT Region	Counties		
Southwest	• La Crosse • Monroe • Juneau • Vernon • Crawford	• Richland • Sauk • Columbia • Dodge • Dane	• Grant • Iowa • Lafayette • Green • Rock
Southeast	• Jefferson • Waukesha • Washington	• Ozaukee • Milwaukee • Walworth	• Racine • Kenosha

² The terms "Stalls" and "Spaces" are used interchangeably throughout the report.



Northeast	• Marinette • Oconto • Outagamie • Brown	• Door • Kewaunee • Manitowoc • Sheboygan	• Winnebago • Calumet • Fond Du Lac
North Central	• Iron • Vilas • Forest • Florence • Price • Oneida	• Lincoln • Langlade • Marathon • Menominee • Shawano • Wood	• Portage • Waupaca • Adams • Waushara • Marquette • Green Lake
Northwest	• Douglas • Bayfield • Ashland • Burnett • Washburn • Sawyer • Polk	• Barron • Rusk • St. Corix • Chippewa • Taylor • Pierce • Pepin	• Eau Claire • Clark • Buffalo • Trempealeau • Jackson • Dunn

Source: WisDOT (2026)

In total, the Project Area contains 288 truck parking facilities and approximately 9,395 truck parking stalls. Truck parking supply is unevenly distributed across Wisconsin. The WisDOT Southwest Region contains the largest share of capacity, with approximately 2,642 truck parking stalls, representing about 31 percent of the Project Area total. The Northeast and Southeast Regions have the second- and third-largest amounts of parking capacity, with approximately 1,683 and 1,371 stalls, respectively. Regions with higher concentrations of truck parking generally correspond to major population and freight activity centers, including Madison in the Southwest Region and Green Bay in the Northeast Region. The Northwest Region also includes portions of I-94, a major east–west freight corridor connecting Wisconsin to the Minneapolis–St. Paul metropolitan area. Although a region may contain a surplus, this does not necessarily equate to adequate parking availability in more localized areas. Consistent with the regional distribution, urban areas contain a higher concentration of truck parking facilities and stalls than rural areas.

Truck Parking Demand

Truck parking demand in Wisconsin reflects distinct patterns for designated and undesignated locations, influenced by HOS requirements, freight activity, and proximity to urban areas and major corridors. Designated truck parking demand is highest during overnight hours, with statewide peak demand occurring between 1 AM and 2 AM, when an average of 5,700 trucks parked at public and private facilities. Demand for parking begins to rise at 4 PM, aligning with typical HOS requirements after a day full of driving. During the peak hour, more than half of parking stalls are near, at, or over capacity, including 56 percent of public stalls and 51 percent of private stalls. Overall, for designated parking, there is a greater demand at private facilities, and this could be attributed to drivers' preferences for amenities at full-service private facilities.

Undesignated truck parking follows a different pattern, with demand peaking during daytime hours. The highest levels of undesignated parking occur between 9 AM and 10 AM, when more than 2,700 trucks are parked on



shoulders, ramps, and other unintended locations. This daytime demand is largely associated with staging activity near pickup and delivery locations, particularly in and around urban and industrial areas.

Supply and Demand Gap Analysis

The supply and demand gap analysis compared truck parking capacity at designated facilities with demand during the statewide peak hour of 1 AM. Truck parking capacity was evaluated using both formal capacity, consisting of marked spaces, and total capacity, which includes unmarked gravel or unpaved areas within designated facilities. At the statewide level, total formal truck parking capacity exceeds peak-hour demand, however this can mask local and regional shortages. While this suggests that Wisconsin had enough truck parking stalls to meet demand during the busiest period, this balance masks significant variation across regions and corridors.

The North Central and Southeast regions experience shortages in formal truck parking capacity during the peak hour. The remaining regions (Northeast, Northwest, Southwest), and out-of-state facilities, had greater formal capacity than demand (i.e., a surplus). However, much of this surplus is in areas that are less accessible to drivers when parking is needed, limiting its practical usefulness. As a result, available capacity in one region does not adequately offset shortages in another. The primary areas with a shortage of total truck parking stalls were the I-94 corridor and the I-39 corridor near Village of Plover during peak hours.

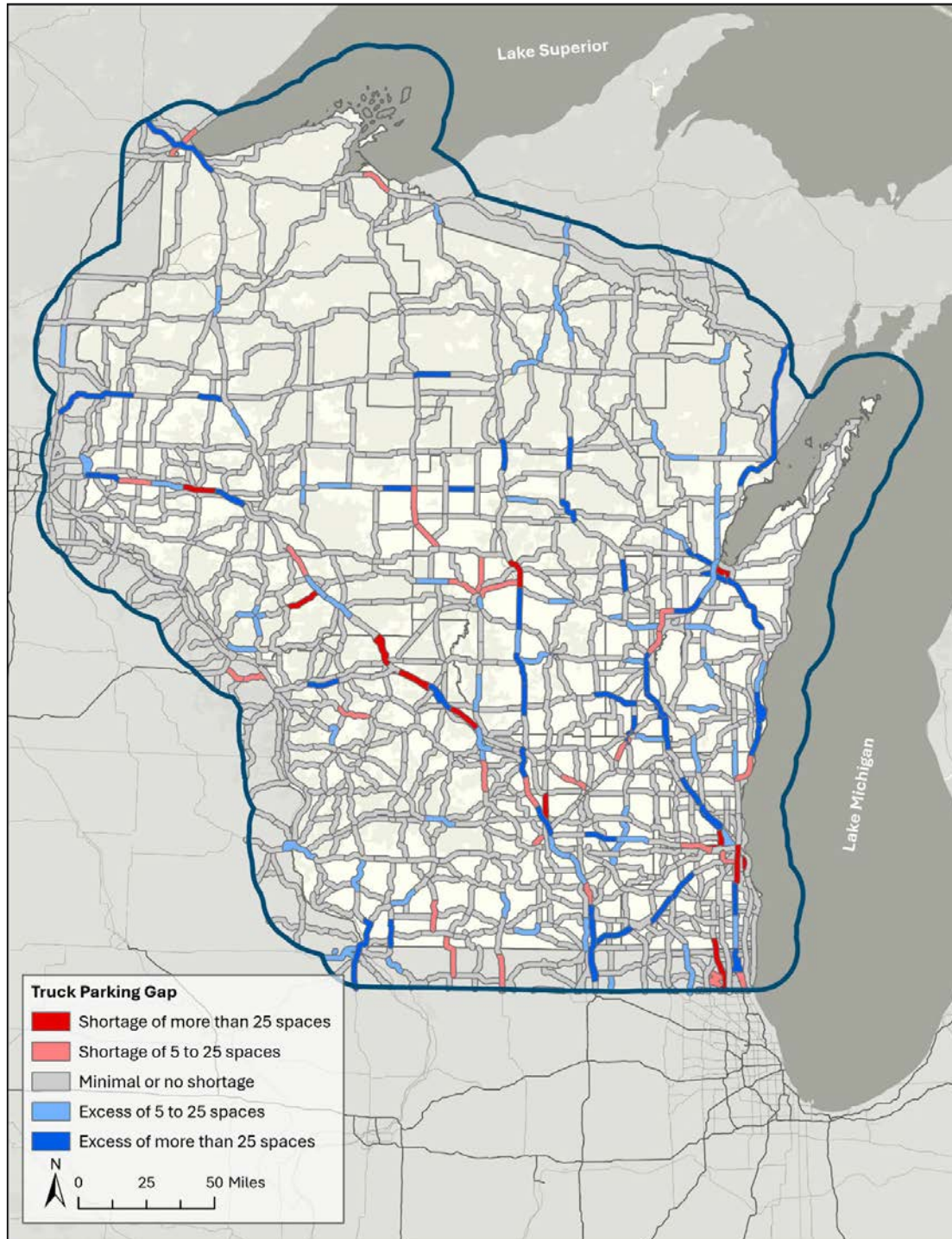
These findings highlight that statewide totals alone do not fully capture truck parking adequacy. Truck parking is inherently location-specific, and drivers require parking options that are available where and when HOS limits are reached. Regional and corridor-level access to parking is therefore critical.

Forecasted Future Truck Parking Demand

Future demand was forecast using growth factors derived from WisDOT's Statewide Travel Demand Model. The analysis indicates that all truck parking facilities are expected to increase in demand across the state. By 2035, 32 designated facilities are projected to shift into higher utilization categories, with many moving from "near capacity" to "at or above capacity" during peak demand hours. Facilities experiencing the greatest growth in demand are concentrated in metropolitan areas and along major interstate corridors.

Forecasted undesigned demand shows a continuation and intensification of existing trends. Undesigned parking is expected to remain most prevalent in urban areas and along key freight corridors, particularly along I-90/I-94 and near the metropolitan areas of Minneapolis-St. Paul metropolitan area, Milwaukee, Madison, and Green Bay. These results indicate that, without targeted mitigation strategies, truck parking shortages are likely to persist and intensify in the same locations where supply and demand are most constrained today.

Figure 2: 2024 Gap Analysis by Segment (1AM)



Source: LOCUS (2024)



Safety Assessment

The study assessed potential safety implications of limited truck parking across Wisconsin, focusing on crashes involving parked commercial motor vehicles (CMVs), citations and warnings, and inspection and HOS violations. Crash data involving parked CMVs from 2017 through June 2025 was used to assess safety risks and identify spatial and temporal crash patterns associated with truck parking.

When drivers cannot access designated parking during required rest periods, they may park on roadway shoulders, entrance or exit ramps, frontage roads, or other areas not designed for CMV stops. These conditions create conflict points, degrade roadway shoulders, and increase exposure to high-speed traffic. This exposure results in parked truck crashes which could be avoided with adequate designated parking availability.

Between 2017 and June 2025, a statewide total of 2,266 crashes were recorded involving parked CMVs. 1,278 crashes were within designated parking areas. The remaining 988 crashes occurred in undesignated parking areas. It is important to note the dramatic difference in crash severity between undesignated and designated CMV parking. Approximately 93 percent of fatal crashes and 92 percent of injury crashes occurred at undesignated parking locations. In contrast, 60 percent of lower severity property damage-only crashes occurred within designated parking areas, while the remaining 40 percent occurred at undesignated parking areas. The data demonstrates the importance of providing designated parking options, which are likely to enhance safety.

Overall, the highest concentration of CMV crashes occurred around urban areas and along segments with high travel demand, with I-94 in Milwaukee seeing the greatest density of crashes. Among all CMV crashes that occurred, 0.62 percent involved fatalities, 6.05 percent resulted in injury, and 93.34 percent were reported as property damage only.

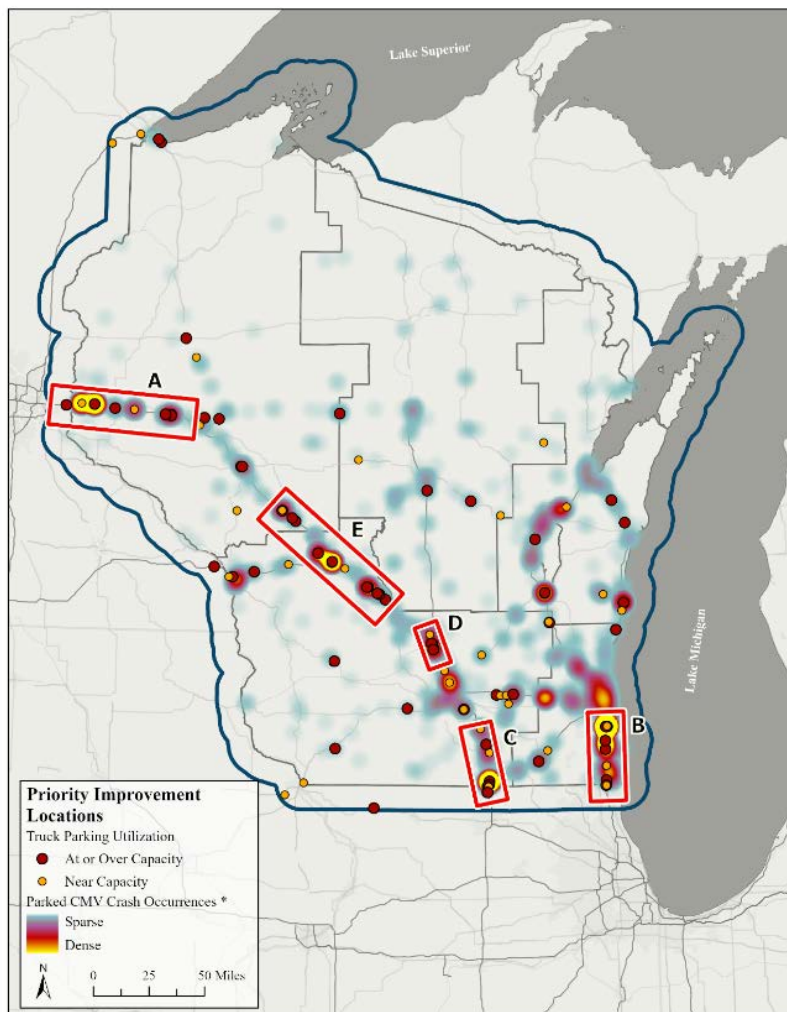
For enforcement trends, data consisting of warnings and citations issued by the Wisconsin State Patrol on interstate highways, U.S. highways, and state highways for illegally parked CMVs between 2015 through 2025 was used to identify locations with frequent non-compliant parking behavior and to examine enforcement trends over time. Between 2015 and 2025, a total of 184 citations were identified within designated and undesignated parking areas. Of the 130 citations issued, 102 citations, or 82.25 percent occurred along the I-94 corridor. Additionally, the analysis identified 184 warnings occurring within designated and undesignated parking areas. Of the 184 warnings, only eight were identified within designated parking areas. Local law enforcement actions were not reviewed for this study.

There were 925 inspection violations identified within designated and undesignated parking areas. There were 429 inspection violations issued at undesignated parking facilities, and 496 identified within designated parking areas. These violations are concentrated to the south of Milwaukee and to the east of Minneapolis-St. Paul metropolitan area.

Recommendations

The statewide analysis indicates that truck parking deficiencies in Wisconsin are concentrated along major interstate corridors, particularly I-90/I-94, and segments of I-39 and I-41, as indicated in Figure 3 below. In these corridors, demand approaches or exceeds available capacity and is expected to increase through 2035. These corridors also experience higher levels of undesignated parking and increased concentrations of crashes involving parked trucks, highlighting both operational and safety concerns. As demand continues to grow, improvements will be required to address these deficiencies and improve access to safe and reliable truck parking in the areas of highest need.

Figure 3: Priority Improvement Locations



Source: WisDOT (2025)

*Parked CMV crash occurrences are weighted by severity



To address these challenges, WisDOT should pursue a combination of strategies that expand capacity, improve system performance, and enhance coordination across the public and private sectors. Recommendations are as follows:

- **Recommendation #1: Targeted Infrastructure Investments:** Implementation should follow a corridor-based prioritization approach that targets the highest-priority corridors based on demand, safety needs, and projected growth, including the combined I-90/I-94 corridor between Tomah and Madison, the I-94 corridor between Milwaukee and the Minneapolis-St. Paul metropolitan area, and I-41 between Milwaukee and Chicago. Expanding existing public facilities along these corridors is the cost-effective approach to increasing capacity, with new facility development considered where gaps exist or expansion is constrained. These improvements should also be integrated with safety enhancements, including improved lighting, access design, and roadside conditions, to reduce crash risk in high-demand corridors.
- **Recommendation #2: Technology and Operational Enhancements:** Expansion of the Truck Parking Information and Management Systems (TPIMS), improved signage and wayfinding, and space optimization can improve utilization of existing facilities and reduce unsafe parking behavior. These improvements should be integrated with safety enhancements, including improved lighting, access design, and roadside conditions, to reduce crash risk in high-demand corridors.
- **Recommendation #3: Strengthened Coordination with Private Sector:** Privately owned truck stops account for the majority of truck parking capacity in Wisconsin, making coordination with private operators critical to improving overall system performance. Opportunities include sharing information on freight patterns, integrating private facilities into truck parking information systems, improving access to existing sites, and aligning public and private investments in high-demand areas. Aligning overnight parking policies and regulations with neighboring states can also help reduce truck parking demand imbalances near state lines.
- **Recommendation #4: Address Policy and Land Use Barriers:** Land use and policy barriers limit truck parking development, particularly in urban and industrial areas where staging-related demand is highest. WisDOT should work with local governments to evaluate zoning requirements, ordinances, and development regulations, and to identify legislation or policy changes that support the development or expansion of truck parking facilities.
- **Recommendation #5: Continued Safety Enhancements:** Truck parking improvements should be integrated with safety objectives in corridors where high demand and undesignated parking activity contribute to increased crash risk. Potential strategies to support ongoing safety enhancements include increasing the availability of designated parking, enhancing facility access and geometry, and improving lighting and signage near parking areas and ramps. Addressing truck parking as both an operational and safety issue can reduce unsafe parking behavior and improve conditions for both truck drivers and the traveling public.



- **Recommendation #6: Coordinated Funding Strategy:** Implementation requires a coordinated approach that aligns truck parking needs with available funding sources and ongoing transportation investments, with projects prioritized based on corridor-level deficiencies, forecasted demand, and observed safety risks. Truck parking projects are eligible under core Federal-aid highway programs, including NHFP, STBG, NHPP, HSIP, and CMAQ, as well as discretionary programs such as INFRA, Mega, and BUILD/RAISE, and technology-focused programs supporting TPIMS deployment. Because a substantial share of truck parking supply is privately owned, partnerships with private sector operators will also be essential to successful implementation. A phased approach that leverages multiple funding sources and targets the highest-priority corridors will allow WisDOT to address truck parking shortages while maximizing the impact of available resources.

No single strategy will fully address Wisconsin's truck parking needs. A combination of the recommendations discussed will be necessary to expand capacity and improve truck parking availability across the state. Pursuing these strategies together, with priority given to the highest-need corridors, will allow WisDOT to make the most effective use of available resources while improving safety and reliability for the trucking industry and the traveling public.



2 Literature Review

This section provides a comprehensive overview of national-level literature, federal policy frameworks, and guidance related to truck parking from 2010 through 2025. It summarizes key federal legislative actions, U.S. Department of Transportation (USDOT) and Federal Highway Administration (FHWA) programmatic initiatives, and highlights from the recent FHWA Truck Parking Development Handbook.

2.1 National Policy Framework and Legislative Actions (2010-2025)

Federal legislation over the past decade increasingly acknowledged the truck parking crisis and provided various mechanisms to support improvements. This section summarizes several major surface transportation laws and related measures since 2010 that have impacted truck parking policy.

2.1.1 MAP-21 (2012) – Jason’s Law

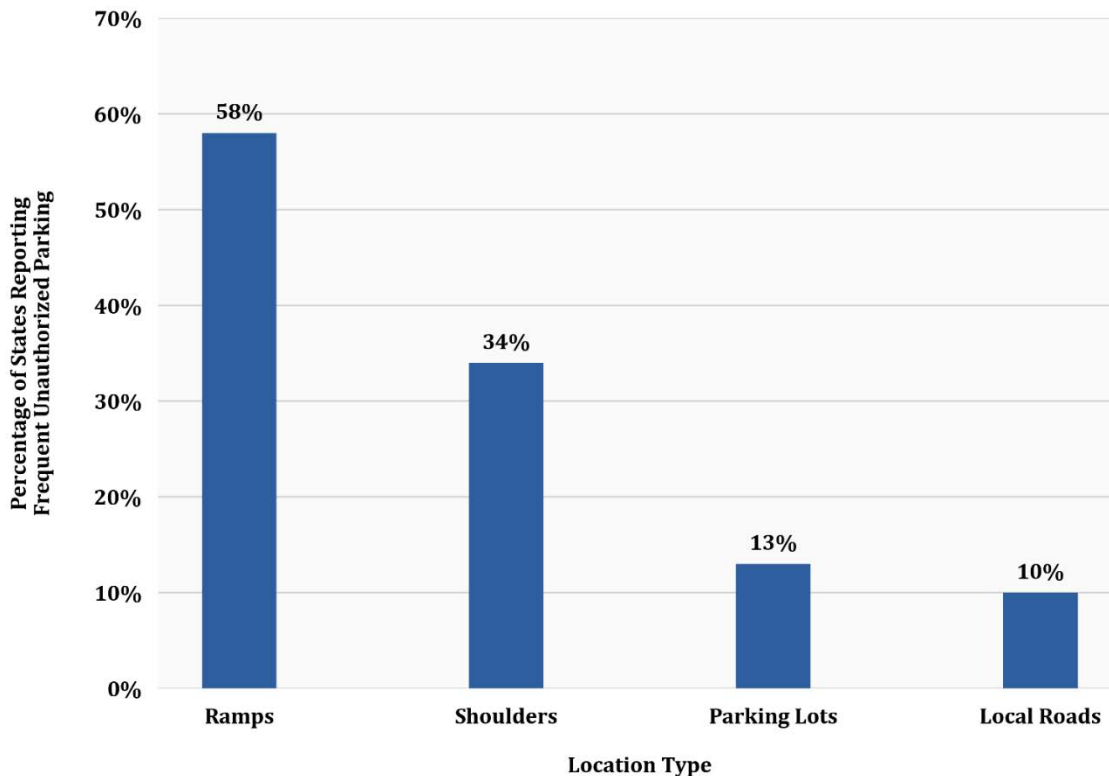
The Moving Ahead for Progress in the 21st Century Act (MAP-21), enacted in July 2012, included a landmark provision for truck parking known as Jason’s Law (Section 1401 of MAP-21). This provision established a national priority to address the shortage of long-term commercial vehicle parking on the National Highway System (NHS) in the interest of improving safety for both truck drivers and highway users. Jason’s Law has two primary impacts:

- **Funding Eligibility:** MAP-21 made truck parking facilities eligible for federal highway funds. States were authorized to use federal aid highway program funds to invest in truck parking projects. In practice, this meant programs like Surface Transportation Program or NHS funds could be directed toward expanding or improving truck parking capacity, including public rest areas or truck stops. Jason’s Law did not provide dedicated funds solely for truck parking, but ensured such projects qualified under existing funding categories.
- **Nationwide Survey Requirement:** Jason’s Law mandated the USDOT to conduct a nationwide survey and assessment of truck parking facilities and needs in consultation with states and other stakeholders. The law required evaluating each state’s capability to provide adequate parking, assessing the volume of commercial truck traffic and developing metrics for parking adequacy. This resulted in the Jason’s Law Truck Parking Survey and Comparative Assessment, the first of which was completed and published by FHWA in August 2015. The survey confirmed widespread truck parking shortages by most states at all times of day, every day of the week. State Motor Carrier Safety Officials were asked to identify locations where undesignated truck parking was occurring within their jurisdictions. While the reporting of locations of undesignated or illegal parking varied depending on the focus and level of analysis in a given state, nearly half of state Departments of Transportation (DOTs) noted that truck drivers were frequently forced to park on freeway ramps or shoulders due to lack of stalls, creating major safety issues. The survey was repeated in 2019 and 2024. Figure 4, from the 2019 survey, illustrates the percentage of states that



reported frequent undesignated truck parking at these locations. The survey's findings highlighted the severity of the problem and spurred further federal attention.

Figure 4: Reported Safety Issues Percentages (2019)



Source: FHWA (2019)

2.1.2 FAST Act (2015) – Continuing Support Through Freight Programs

The Fixing America's Surface Transportation Act (FAST Act), enacted December 2015, was the next major surface transportation law. The FAST Act established a new formula funding program, the National Highway Freight Program (NHFP), to invest in freight infrastructure. Truck parking projects that met the criteria of Jason's Law were explicitly made eligible under NHFP.³ The FAST Act also required states to develop comprehensive State Freight Plans as a condition of using freight funds. The FHWA encouraged states to address truck parking needs in these plans and at least six state DOTs had identified specific truck parking projects in their plans totaling over \$400 million in proposed investments (including approximately \$21 million specifically for new truck parking infrastructure).

³ https://ops.fhwa.dot.gov/freight/infrastructure/truck_parking/jasons_law/truckparkingsurvey/index.htm



2.1.3 Infrastructure Investment and Jobs Act (2021) – Recent Funding Landscape

The Infrastructure Investment and Jobs Act (IIJA) of 2021 provided a historic increase in overall transportation funding, authorizing \$350+ billion for highways over 2022 to 2026. Despite broad bipartisan recognition of the truck parking shortage by 2021, the final IIJA legislation contained no dedicated truck parking grant program. However, truck parking projects remained eligible for a wide array of federal funding programs under IIJA. For example, states could continue using their increased formula funds from the Surface Transportation Block Grant Program (STBG), the NHFP, the National Highway Performance Program (NHPP), and the Highway Safety Improvement Program (HSIP) for truck parking, subject to the 2012 Jason's Law eligibility guidance. Additionally, IIJA expanded competitive grant opportunities. USDOT clarified that many discretionary grant programs can be used to expand truck parking. Key examples include Infrastructure for Rebuilding America (INFRA) grants, Better Utilizing Investments to Leverage Development (BUILD, formerly TIGER and RAISE grants), the new Rural Surface Transportation Grants, and Mega Project grants. All these grants fund larger-scale infrastructure projects and have previously awarded funds to freight and truck parking projects. For technology solutions, the FHWA's Advanced Transportation Technologies and Innovative Mobility Deployment (ATTIMD) grants and the Federal Motor Carrier Safety Administration (FMCSA) High Priority – Innovative Technology Deployment (HP-ITD) grants are specifically noted as sources to implement Truck Parking Information and Management Systems (TPIMS) or real-time parking availability technology.

2.1.4 Other Legislative Developments (2010-2025)

Beyond the major highway bills above, there have been additional legislative activities aimed at addressing truck parking in the past decade:

- **Jason's Law Implementation and Updates:** Following MAP-21, Congress has continued to monitor truck parking needs. The initial Jason's Law survey (2015) was followed by second survey completed in 2019. FHWA released state-by-state parking data and conducted a third nationwide survey in 2024 to update the assessment; however, the results of the third survey have not yet been published as of July 2025. These ongoing assessments are a result of the legislative mandate in Jason's Law that the USDOT regularly evaluates the need for safe truck parking as a national priority. The surveys help inform Congress on progress and remaining gaps.
- **Dedicated Truck Parking Funding Legislation:** In response to continued shortages, members of Congress have introduced standalone bills to provide dedicated federal funding for truck parking. A notable effort is the Truck Parking Safety Improvement Act, a bipartisan proposal originally introduced in 2020 and re-introduced in subsequent Congress (including H.R.2367 in 2023 and H.R.1659 in early 2025). This bill, if enacted, would authorize competitive grants specifically to build new truck parking capacity or upgrade facilities. The House of Representatives' Transportation and Infrastructure Committee approved a version in 2023, and advocates are optimistic about its prospects. The continued consideration of this bill signals strong congressional interest in supplementing existing programs with a focused solution for truck parking shortages.



In summary, from 2010 to 2025 the federal legislative framework has evolved from acknowledging the issue to actively seeking solutions. MAP-21's Jason's Law established truck parking as a national priority and required understanding the problem. The FAST Act integrated parking into freight funding and planning. The IIJA expanded the funding toolkit available. Combined, these policies form a foundation that empowers states to use federal funds for truck parking projects and keeps the issue in focus at the national level.

2.2 USDOT and FHWA Programmatic Initiatives (2010-2025)

In tandem with legislation, USDOT agencies (particularly FHWA in cooperation with FMCSA) have undertaken numerous programmatic initiatives since 2010 to address truck parking at the national level. This section highlights major initiatives, including partnerships, guidance on funding eligibility, nationwide studies, and freight programs that incorporate truck parking.

2.2.1 National Coalition of Truck Parking (Formation and Activities)

One of the most significant federal initiatives was the creation of the National Coalition on Truck Parking in 2015. Prompted by Jason's Law survey results that revealed nationwide shortages, USDOT convened the public-private coalition to serve as a forum for stakeholder collaboration. The coalition was announced in August 2015 by FHWA and FMCSA leadership, bringing together partners such as state DOTs (through the American Association of State Highway and Transportation Officials [AASHTO]), the trucking industry (American Trucking Associations [ATA], Owner-Operator Independent Drivers Association [OOIDA]), truck stop operators (NATSO), safety enforcement (Commercial Vehicle Safety Alliance [CVSA]), and others. The goal was to leverage both public and private sector perspectives to find creative solutions to truck parking challenges.

- **Coalition Structure & Meetings:** FHWA's Office of Freight Management and Operations leads the coalition. A series of regional meetings from its 2015 kickoff allowed local stakeholders to voice needs and propose ideas, which were compiled in the National Parking Activity Report (2015-2016). Key suggestions from stakeholders included improving real-time parking information, expanding public rest area capacity, partnering with private truck stops, and addressing zoning or land use barriers to new facilities.
- **Coalition Working Groups and Products:** Groups were created with the goal of focusing on specific areas such as Parking Capacity; Technology and Data; Funding; Finance and Regulations; and, State, Regional, and Local Government Coordination. These working groups produced a series of products and recommendations. For example: the Parking Capacity Group developed case studies involving shippers/receivers in addressing parking and creative use of highway right-of-way for parking. The Technology and Data Group documented best practices for Truck Parking Availability Systems and surveyed the landscape of truck parking apps. The Funding and Finance group compiled a Truck Parking Funding Opportunities fact sheet covering federal grant programs and innovative financing. The Local Government Coordination group shared strategies for integrating truck parking into regional plans. An Activity Report (2018) summarizes all these working group outputs. By facilitating these workstreams, the National Coalition on Truck Parking has functioned as a clearinghouse for ideas and resources that states and metropolitan planning organizations (MPOs) can use.



The coalition has provided continuity across administrations. It was active under DOT leadership in the 2015-2016 period and later re-energized around 2020 when the second Jason's Law survey data became available. The coalition is still in place.

2.2.2 Federal Guidance on Funding and Grants for Truck Parking

To complement legislative provisions, USDOT (through FHWA and FMCSA) has issued guidance clarifying the eligibility of various federal funds for truck parking projects. A significant guidance document is the FHWA Memorandum on Eligibility of Title 23 and Title 49 Federal Funds for Commercial Motor Vehicle Parking. According to the FHWA guidance, states may use a range of formula programs for truck parking improvements, including STBG, NHFP, HSIP, NHPP, the Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation (PROTECT) program, Carbon Reduction Program (CRP), and Congestion Mitigation & Air Quality (CMAQ) programs. Each program addresses a different aspect but all are valid funding sources for parking construction or upgrades under existing law.

In addition to formula funds, USDOT encourages states, MPOs, and other eligible entities to apply for competitive grants for truck parking projects. Discretionary grant programs where truck parking has been highlighted include:⁴

- **INFRA Grants:** Large-scale freight and highway projects (several past INFRA awards have included truck parking elements, such as expanding rest areas or building parking along critical freight corridors). For Wisconsin:
 - ▶ WisDOT was awarded \$8 million by the INFRA 2023-2024 program for the truck parking expansion of I-90 WB Safety Rest Area – Sparta.
 - ▶ WisDOT was awarded \$12.5 million by the INFRA 2025-2026 program for I-43 SRAs and Truck Parking Expansions.
- **BUILD Grants:** Multimodal grants where truck parking projects can compete, especially if they have safety, economic, and environmental benefits for communities.
- **Rural Surface Transportation Grants:** Targeted at rural infrastructure; truck parking in rural areas (e.g., along interstate corridors) can be a strong candidate due to safety impacts for long-haul drivers.
- **National Infrastructure Project Assistance (Mega Grants):** For megaprojects; while primarily for major bridge or corridor projects, ancillary truck parking components could be included in larger freight corridor improvements.
- **Advanced Transportation Technologies and Innovative Mobility Deployment (ATTIMD):** Provides \$60 million per year (2022–2026) for advanced transportation tech; FHWA has earmarked that truck parking information systems (sensors, dynamic signage, apps) are eligible under this program.

⁴ <https://www.transportation.gov/grants/dashboard>



- **FMCSA High Priority – Innovative Technology Deployment (HP-ITD):** An FMCSA grant program historically used for intelligent transportation systems in trucking (formerly CVISN). FMCSA explicitly lists truck parking information and management systems as eligible for HP-ITD grants, encouraging states to pursue ITS solutions for parking availability.
- **Port Infrastructure Development Program (PIDP):** Administered by the Maritime Administration, this can fund projects to improve freight movement at ports; including truck staging and parking areas to reduce port-area congestion.
- **Reduction of Truck Emissions at Port Facilities Program:** A new grant program from IIJA which can fund electrified parking stalls or equipment that allow trucks to plug in at rest instead of idling (important for emissions reduction and driver comfort).

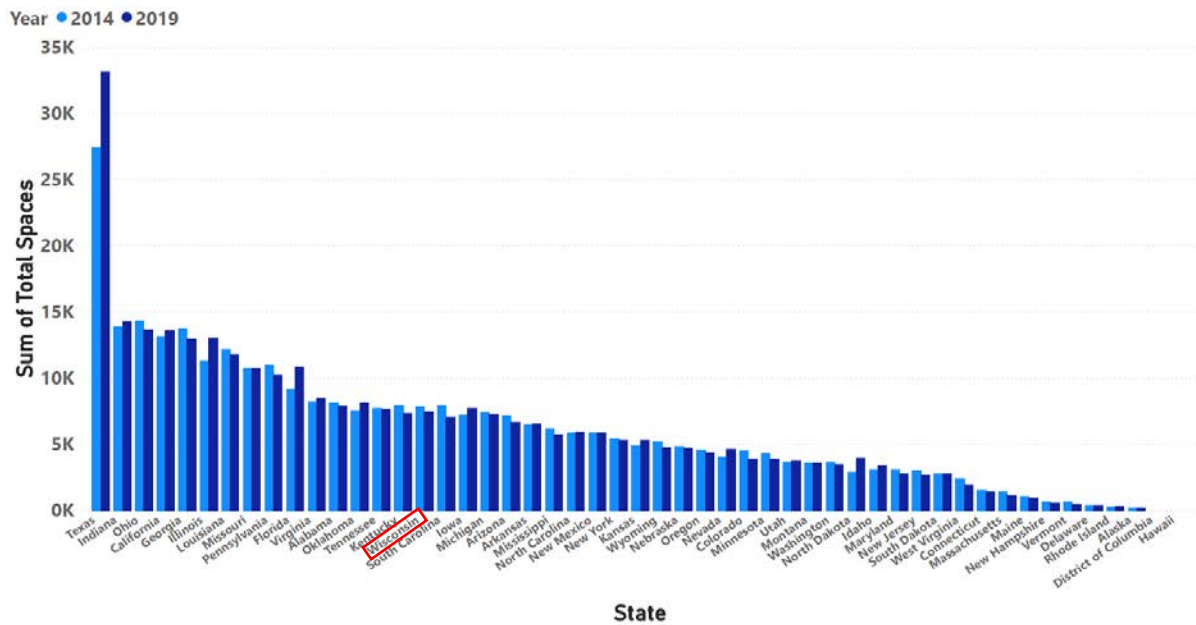
2.2.3 National Studies, Data, and Freight Planning Initiatives

Beyond funding, USDOT has undertaken research and data initiatives to support truck parking decisions.

As noted, the first Jason's Law Truck Parking Survey report was published in 2015, providing a baseline assessment. FHWA followed up with a second survey in 2018-2019, whose results were presented in 2020. According to FHWA, the 2019 Jason's Law survey found that there were approximately 313k truck parking stalls nationally and provided state-level data on the total number of truck parking stalls. Figure 5 illustrates the total number of truck parking stalls by state in 2014 and 2019.

The total number of truck parking stalls in Wisconsin exceeded the national average in both 2014 and 2019. Like 30 other states, Wisconsin experienced a decrease in the total number of truck parking stalls by 2019 after fluctuations since 2014. The observed decrease in reported truck parking stalls between the 2014 and 2019 Jason's Law surveys is likely attributable to changes in FHWA data collection methodology, including refinements to facility definitions, improved verification of reported capacities, and more consistent treatment of private-sector and mixed-use parking facilities. As a result, the 2019 figures may reflect a more standardized and conservative estimate of available truck parking supply rather than a true reduction in physical capacity.

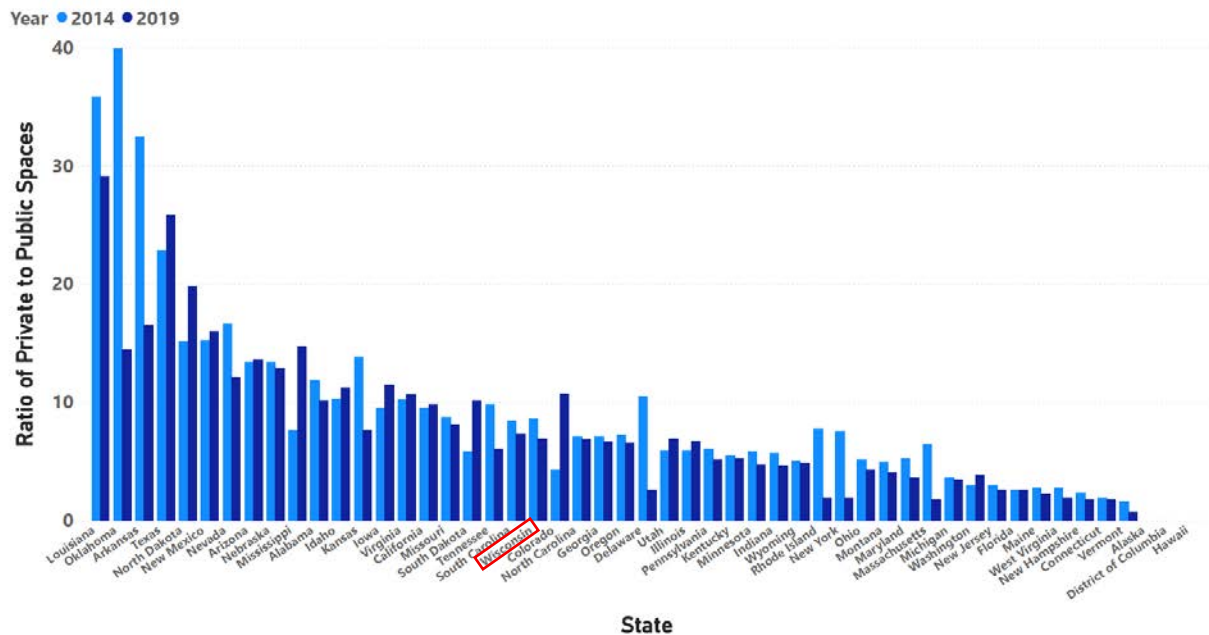
Figure 5: Sum of Total Spaces by State and Year



Source: USDOT (2019)

Of the total truck parking spaces nationwide, only about 40k (13 percent) were in public rest areas, with the remainder at private truck stops. Jason's Law survey also provided state-level breakdowns of public versus private truck parking, allowing for comparisons of how different states rely on private facilities to meet parking demand. Figure 6 illustrates the ratio of private to public spaces by state in 2014 and 2019. The data for Wisconsin indicates that its ratio of private to public spaces fall within the middle quartile among all states. Wisconsin became less reliant on private truck parking spaces in the 2019 survey update after completing public truck parking expansion work at the Superior and Sparta SWEFs, which added a total of 27 new public spaces between 2016 and 2017.

Figure 6: Ratio of Private to Public Spaces by State and Year

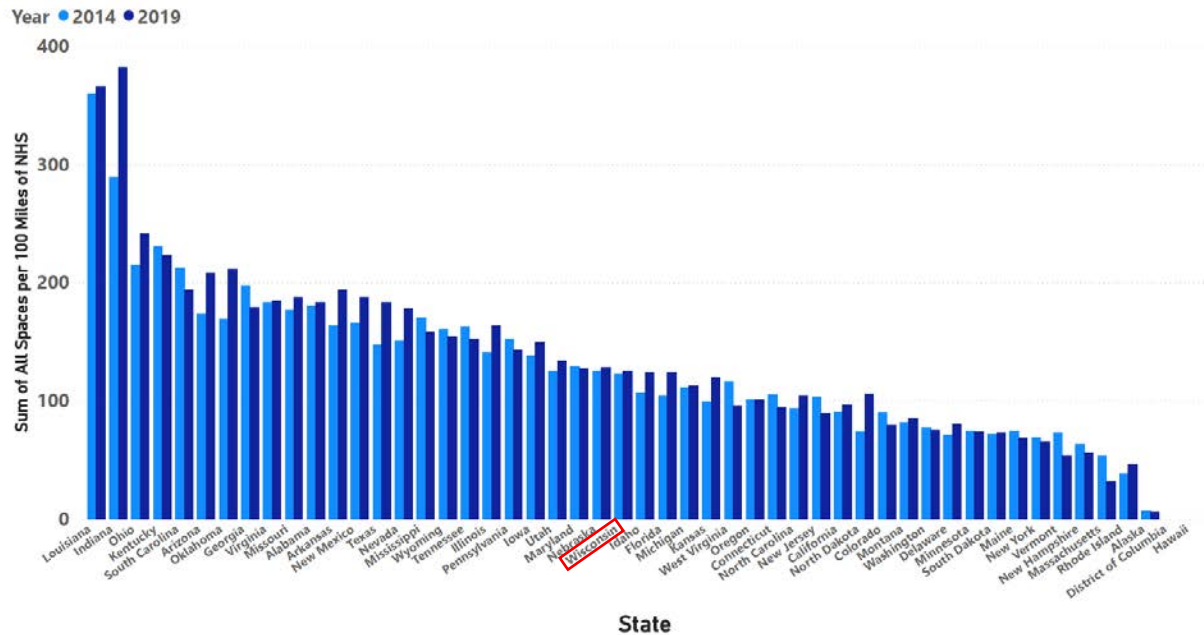


Source: USDOT (2019)

To support more regionally targeted analysis, the 2019 Jason’s Law survey included state-level data on key indicators, including supply metrics standardized by freight activity and roadway coverage. These metrics include the number of parking spaces per 100k daily truck vehicle miles traveled (VMT), and the number of spaces per 100 miles of NHS routes. Standardized data helps evaluate how well truck parking supply aligns with actual demand across states, thereby supporting more targeted planning and resource allocation. Figure 5 illustrates all spaces per 100 miles of NHS by state in 2014 and 2019, and Figure 8 illustrates all spaces per 100K daily truck VMT.

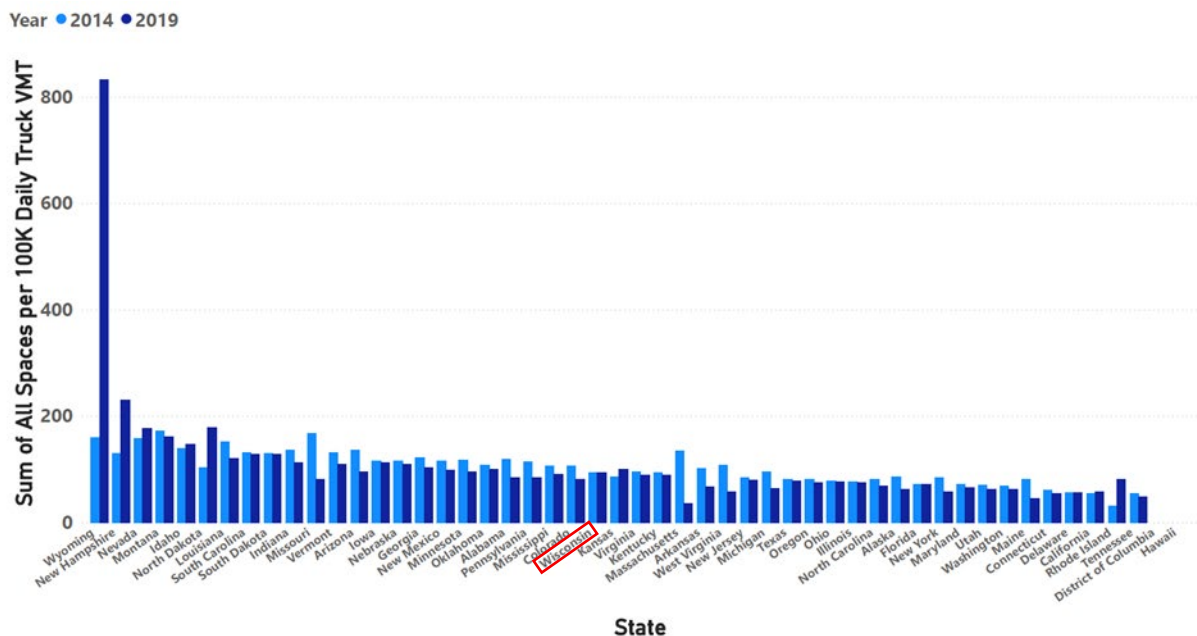


Figure 7: Sum of All Spaces per 100 Miles of National Highway System by State and Year



Source: USDOT (2019)

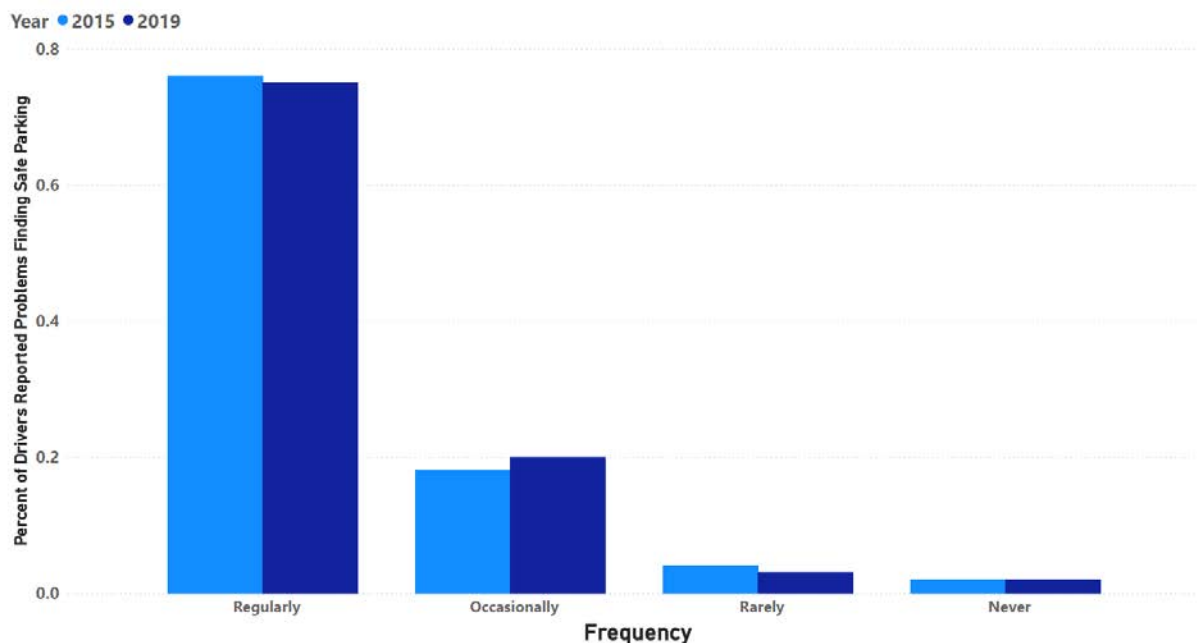
Figure 8: Sum of All Spaces per 100K Daily Truck VMT by State and Year



Source: USDOT (2019)

Critically, 98 percent of truck drivers reported difficulty finding safe parking at some point, and 75 percent reported problems on a regular basis. These findings reaffirmed that chronic shortages persist, particularly along major freight corridors. In 2024, FHWA launched the third nationwide Jason’s Law survey to update these figures, as mandated to periodically evaluate progress. As of 2026, the third nationwide Jason’s Law Truck Parking Survey remains in the data validation and analysis phase, and FHWA has not yet released updated national results or finalized state-level comparisons. These recurring assessments keep the issue data-driven and help measure the impact of interventions over time. Figure 9 shows the frequency of drivers reported problems finding safe parking.

Figure 9: Percent of Drivers Reported Problems Finding Safe Parking



Source: FHWA (2019)

- National Freight Strategic Plans (NFSP):** USDOT’s Office of the Secretary released the first National Strategic Plan (NSP) in September 2020, as required by MAP-21/FAST Act. The NFSP explicitly recognizes truck parking shortage as a serious national freight safety issue and recommended strategies to address it. It highlighted that insufficient parking contributes to driver fatigue (a factor in highway crashes) and supply chain inefficiency. The inclusion of truck parking in this high-level strategic plan signaled to all states that addressing parking is part of national freight policy goal of improving safety and modernization of freight infrastructure. States were encouraged to consider truck parking in their own freight plans and investment priorities, aligning with the NFSP’s goals.⁵

⁵ The National Freight Strategic Plan (NFSP) was updated in May 2026. This update was not incorporated into the Wisconsin Statewide Truck Parking Study (TPS) due to the project timeline under which the study was developed.



- **Dedicated Studies and Toolkits:** FHWA and others have sponsored numerous studies to deepen understanding of truck parking patterns and solutions. For example, the Mid-America Association of State Transportation Officials (MAASTO) led a multi-state TPIMS project (2016-2019) with a TIGER grant, demonstrating technology to broadcast real-time parking availability along highways in eight states. This project is often cited in coalition meetings as a best practice in regional coordination. The FHWA Office of Freight has compiled a Clearinghouse of Truck Parking Studies and Resources, cataloging over 100 studies by states, academic institutions, and industry groups. Common findings across these studies include rapid growth in truck traffic, persistent parking shortages, lack of driver information on where spaces are available, and community opposition to new facilities. By centralizing these resources, FHWA helps practitioners learn from experiences around the country.
- **Workshops and Training:** A series of truck parking workshops have been conducted nationwide to convene state DOTs, MPOs, and industry stakeholders, facilitating the exchange of strategies and supporting the development of updated guidance materials. Notably, FHWA's National Highway Institute (NHI) introduced a Truck Parking Training Course in 2022 (NHI Course 139014) to educate transportation planners and engineers on truck parking analysis and project development. This corresponds with the release of the FHWA Truck Parking Development Handbook in 2022 (detailed summary in section 2.3 below). The training and handbook act as a toolkit for local and state agencies to address parking using best practices.
- **Freight Grants Including Truck Parking:** Through competitive grant awards, USDOT has also directly invested in pilot projects. For example, FHWA in 2020 noted that \$6.8 million was awarded to Texas DOT to construct additional truck parking spaces along I-10, and \$2.1 million to Pennsylvania for expanding rest area parking, among other projects. Some earlier dedicated pilot funding came under prior law (e.g., a FHWA Truck Parking Pilot Program in the late 2000s), and unused funds from that were redistributed to add a few dozen spaces in Utah.

In summary, FHWA and USDOT's programmatic response since 2010 has been multifaceted: convening stakeholders (the National Coalition) to build momentum in issuing clear guidance that truck parking projects are fundable within existing federal programs; gathering data and conducting surveys to quantify the problem; integrating truck parking into broader freight policy and planning efforts; and developing practical tools, trainings, and handbooks to assist state and local agencies in project development. This comprehensive approach at the national level sets the stage for informed action at the state level.

2.3 FHWA Truck Parking Development Handbook – Key Highlights

In September 2022, FHWA published the Truck Parking Development Handbook (FHWA-HOP-22-027). This capstone document synthesizes best practices and guidance for planning, designing, and implementing truck parking solutions. It is intended as a resource for transportation planners, engineers, local officials, state DOTs, MPOs, economic development agencies, and other stakeholders involved in freight and land use planning. The handbook addresses the full spectrum of truck parking project development from understanding demand, to facility siting and design, to stakeholder considerations, through to cost-benefit evaluation and case studies.



Below is a detailed summary of its key components, with emphasis on demand estimation methodologies, site evaluation and design guidance, safety and stakeholder considerations, and cost-benefit analysis tools with example case studies.

2.3.1 Truck Parking Demand: Factors and Estimation Methodologies

Understanding and quantifying truck parking demand is a foundational element of the handbook. It explains that demand for truck parking is driven by various operational needs of the trucking industry including drivers taking mandated hour-of-service rest breaks (overnight and short breaks), staging (waiting near customer facility for a pickup/delivery window), emergency stops (e.g. weather or mechanical issue), and other short term operational stops. Key factors affecting demand were summarized as freight volume on highways, locations of distribution centers/warehouses, hours-of-service (HOS) regulations, and the availability (or lack thereof) of parking infrastructure in a region. The handbook provides a two-level approach to estimating demand:

- **Community/Regional Level Demand:** Planners are advised to start by assessing truck parking demand in their community. This involves identifying major freight generators (such as industrial parks, trucking hubs, ports, warehousing clusters) and corridors in the region that attract truck traffic. The handbook suggests using data such as freight facility employment, truck traffic volumes (from counts or global positioning system [GPS] probe data), and input from drivers and logistics companies to gauge where trucks need to park. By estimating land use and freight activity patterns, local planners can estimate baseline parking demand in various zones of their community.
- **Site Specific Demand Estimation:** Once potential sites for new or expanded truck parking are being considered, the handbook describes how to estimate demand at a specific site. This involves evaluating the site's proximity to demand sources and using tools like parking accumulation models. For example, calculating how many trucks use a facility given traffic volumes on the adjacent highway and typical percentages of drivers who stop per hour of passing trucks. The handbook suggests considering the capture rate of trucks that a particular location can attract, based on factors like distance to the nearest parking facility and real-time information availability. If available, utilization data from existing nearby truck stops or rest areas can inform how much overflow demand exists that a new site could capture. The output of site-level demand analysis is an estimate of the number of stalls needed for that site to adequately serve the anticipated trucks.

Importantly, the handbook underscores that truck parking demand is context-specific: every community has different freight patterns and urban versus rural needs differ. Urban areas, for example, might face high demand for short-term staging parking due to just-in-time delivery schedules and local delivery restrictions, whereas rural interstate segments see demand for overnight/rest parking for truck traffic. The handbook advises tailoring demand estimation to these nuances. It also incorporated land use planning considerations, encouraging communities to integrate parking into land use decisions. Several short case studies demonstrate how regions have assessed their truck parking demand. The handbook's guidance on demand estimation gives practitioners a framework to quantify the need for truck parking using both quantitative data and qualitative insights.

2.3.2 Site Evaluation and Design Guidance for Truck Parking Facilities

Selecting suitable sites and designing effective truck parking facilities are core parts of the handbook. Site evaluation involves assessing potential locations for new parking or expansions, while design guidance covers how to layout and equip those facilities to meet drivers' needs and ensure safety and efficiency.

- **Site Selection Considerations:** The handbook discusses criteria for identifying good locations for truck parking. Important site factors include proximity to freight routes, availability of sufficient land, and compatibility with local land use. The handbook suggests looking at underutilized public lands like old rest areas, weigh stations, or highway right-of-way as potential candidates for new parking capacity. It also notes that accessibility and visibility are important factors. Environmental and community impacts are part of site evaluation. The handbook advises early coordination with local government and community stakeholders to address concerns such as noise, emissions, and traffic from a proposed truck parking location. Mitigation strategies can make a proposed site more acceptable. The goal in site selection is to find locations that maximize the utility to drivers while minimizing negative impacts on surrounding communities.
- **Design of Truck Parking Facilities:** The handbook provides detailed design guidance to ensure that once a site is chosen, the facility is built to appropriate standards for heavy vehicles and driver comfort. Key design elements include geometric design and layout, pavement structure, amenities and driver facilities, mitigating impacts on adjacent land uses, and designing for future needs.

Overall, the design guidance in the handbook is aimed at ensuring truck parking facilities are safe, efficient, and driver-friendly, while also being compatible with their surroundings. Proper design directly relates to safety; for example, well-designed parking lots reduce the chance of crashes between trucks while maneuvering and well-lit secure areas significantly reduce personal assaults or cargo theft incidents that might occur. The handbook's design chapter effectively serves as a manual for engineers to reference when scoping and designing a truck parking project, compiling standards and best practices from AASHTO and successful state examples.

2.3.3 Safety and Stakeholder Considerations

Safety is a recurring theme throughout the handbook, both the safety of truck drivers and the safety of other road users – as is the importance of considering stakeholders such as the trucking community and residents in the development process.

- **Driver Safety and Public Safety:** The handbook cites national statistics linking fatigue-related crashes to lack of rest opportunities. For example, a large truck crash causation study found 13 percent of commercial motor vehicle drivers were fatigued at the time of their crash, underlining the critical need for adequate rest parking. By providing safe places to park, we reduce the incidence of tired truckers continuing to drive or park in dangerous areas. The handbook notes that a lack of safe parking has negative safety outcomes: it forces truckers to either violate HOS or park illegally on shoulders or ramps, endangering themselves and others. Each truck parked on the shoulder is a collision hazard.



- **Community and Stakeholder Engagement:** Truck parking projects can raise concerns among local stakeholders such as residents, business owners, and environmental groups. The handbook advises early and proactive engagement to address the Not-in-My-Backyard (NIMBY) issues that arise. It frames truck parking as not just a trucking industry issue but a community one: insufficient parking can lead to trucks parking in inappropriate places within communities.

2.3.4 Cost Benefit Analysis and Case Studies

A noteworthy feature of the FHWA Truck Parking Development Handbook is the inclusion of guidance on evaluating the benefits and costs of truck parking projects, along with example case studies demonstrating these evaluations. This focus is meant to help transportation agencies build the economic justification for truck parking investments, which can compete with other projects for funding.

Benefit-Cost Analysis (BCA) Guidance: The handbook devotes a section on how to conduct a BCA for truck parking improvements. It aligns with standard USDOT BCA guidelines. Key benefits of truck parking projects identified for quantification include:

- **Safety Benefits:** Reducing crashes (and crash fatalities/injuries) by mitigating fatigue while driving. The handbook notes that providing adequate parking has a direct safety payoff; for BCA, this can be quantified by estimating the reduction in fatigue-related crashes if more drivers have access to safe rest areas, using national crash rates and the value of statistical life.
- **Travel Time and Productivity Benefits:** When drivers can plan their stops efficiently (or find parking faster), there are travel time savings and improved productivity. For example, when drivers circle to find parking or detour due to lack of parking, they waste time and fuel. A new facility can reduce this search time. Additionally, by enabling rest, drivers can be more productive.
- **Environmental and Emissions Benefits:** Trucks parked in safe areas will consume less fuel than trucks searching for parking or parked on shoulders with engines running for climate control. Reduced idling and fewer VMT (from searching) lower emissions which can be monetized under Congestion Mitigation and Air Quality (CMAQ) methodologies.
- **Infrastructure Preservation:** Preventing damage to road shoulders and pavement is another benefit. The handbook noted that when trucks park on highway shoulders or other unprepared surfaces, they cause disproportionate damage which leads to maintenance costs. Providing proper parking helps avoid those repair costs, which can be counted as an asset preservation benefit.
- **Logistics Efficiency:** Though harder to quantify, having sufficient truck parking supports supply chain efficiency – deliveries can be timed better, and drivers can consolidate stops. Some BCAs may capture this as improved reliability or reduced logistics costs for shippers.

To illustrate the BCA process, the handbook presents two case studies based on real-world truck parking projects and walks through their benefit-cost evaluations. Although the specific projects are anonymized, they represent typical scenarios.



- **Case Study 1:** A project adding capacity in state with a known parking shortfall. The analysis shows a Benefit-Cost Ratio (BCR) of 1.8 at 3 percent discount rate and 1.0 at 7 percent discount rate, meaning the project's benefits significantly outweigh the cost as the lower discount rate and has equal costs at the higher standard discount rate. Benefits in this scenario were likely driven by a sizable reduction in fatigue-related crashes on a busy corridor, plus time savings.
- **Case Study 2:** A project implementing a TPIMS (technology deployment) across multiple states. The example BCA found a BCR of around 1.2 at 7 percent discount rate and 2.15 at 3 percent discount rate, indicating strong returns especially when considering long-term benefits. In this case, the costs were lower, as technology tends to cost less than building pavement. The benefits came from improved efficiency (drivers spent less time searching for parking, thereby saving time and fuel) and potentially from enhanced safety if the information system helps prevent unsafe last-minute parking maneuvers.

In conclusion, the FHWA Truck Parking Development Handbook is a comprehensive guide that educates practitioners on truck parking planning and management. Backed by case-study examples, it explains how to justify and implement solutions effectively by covering demand analysis, design standards, safety and community factors, and project benefit-cost evaluation.

2.4 Summary

The period 2010-2025 has seen a significant maturation of national policy and guidance on truck parking in the United States. From Jason's Law in 2012, through the freight-focused provisions of the FAST Act, to the expansive funding programs of IIJA, federal actions have increasingly recognized truck parking as integral to highway safety and freight efficiency. USDOT, through FHWA and FMCSA, has fostered partnerships like the National Coalition on Truck Parking and provided states with robust guidance, both on funding and planning/design. To improve safety and support commerce, state DOTs can leverage the national policy framework and guidance summarized in this memorandum to integrate truck parking strategies into their transportation programs.



3 Inventory

This section outlines the methodology and findings from the comprehensive, statewide evaluation of truck parking across Wisconsin. The inventory aimed to document the current truck parking capacity and availability across both public and private facilities within and adjacent to Wisconsin.

3.1 Data Sources

The following sections summarize the data sources used to determine the current inventory of truck parking facilities in Wisconsin.

3.1.1 Public Datasets

The following public datasets were used to identify and characterize publicly owned truck parking facilities:

1. WisDOT SRA Data (2025) – Includes location, capacity, and demand.
2. Jason's Law Survey Results (2024) – National truck parking assessment with Wisconsin-specific responses.
3. MAASTO Regional TPIMS System (2025) – Provides dynamic parking availability and associated metadata.
4. Minnesota Rest Areas and DOT Facilities (2025) – Location data.
5. Iowa DOT Existing Rest Areas (2025) – Location data.
6. Illinois DOT Rest Areas (2024) – Location data.
7. Michigan DOT Rest Areas and Welcome Centers (2025) – Location data.

3.1.2 Private Data Sets

Private truck parking facilities were identified using a combination of commercial sources and publicly accessible platforms:

1. Google Maps and Imagery (2025) – Used for location verification and imagery-based validation.
2. Facility Websites (2025) – Includes major changes (Pilot, Love's, TA, etc.) and independent truck stops.
3. Trucker Path Mobile App and AllStays (2025) – Aggregated data on truck stop locations and amenities.

3.2 Inventory Compilation

The truck parking facility inventory includes both publicly owned and commercial facilities located within the study boundaries. These boundaries comprise areas within one mile of all interstate highways, U.S. highways, and state highways in Wisconsin and extending 15 miles into adjacent states.



3.2.1 Public Parking Facilities

Public facilities include SRAs and SWEFs owned and maintained by WisDOT. These locations typically provide basic amenities such as restrooms, vending machines and designated truck parking stalls, but do not have fuel and food services.

- **Data Sources:** Location and capacity data for public facilities were compiled from WisDOT-maintained datasets, supplemented by public datasets from adjacent states to add regional coverage.
- **Inclusion Rule:** All identified public facilities were included in the inventory, regardless of capacity or amenities, if they provided any truck-accessible parking.
- **Spatial Treatment:** When public facilities were in both travel directions but physically separated by a median (example eastbound and westbound rest areas), they were counted as separate facilities within the inventory.
- **Capacity Definition:** When available, truck parking stall counts were taken from WisDOT reported numbers. In cases where this information was missing, stall counts were defined based on visual confirmation using current aerial imagery from Google or Esri.

3.2.2 Commercial Truck Parking Facilities

Commercial facilities refer to privately owned truck stops and travel centers that typically offer services including fuel, food, restrooms, showers, and designated truck parking areas. These facilities play a critical role in supporting long-haul freight movement and driver safety.

- **Data Sources:** Facility data were compiled from the LOCUS truck dataset (a location-based services dataset developed by Cambridge Systematics), WisDOT-provided lists, and publicly available databases of adjacent states. Additional sources included:
 - ▶ Company sites (e.g., Love's, Pilot Flying J, TA Travel Centers)
 - ▶ Third-party aggregators (e.g., AllStays, Trucker Path)
 - ▶ Manual validation using current aerial imagery from Google Maps
- **Inclusion Rule:** Facilities were included in the inventory if they provided truck-accessible parking and were located within the defined study boundaries.
- **Capacity Definition:** When available, truck parking stall counts were taken from company-reported numbers on official websites and visually verified against current aerial imagery. In cases where this information was missing or inconsistent with current imagery, stall counts were defined based on visual confirmation of defined truck parking stalls.



3.2.3 Designated and Other Informal Lot Digitization

Many of the private commercial facilities have informally designated parking for trucks located to the rear of the building. These parking lots are usually gravel, or unmarked. To account for these parking areas, geofences were created around each informal designated lot identified. Then, the acreage for each geofence was calculated and rounded to the nearest whole number. From there, an estimation of truck parking capacity was calculated at 20 trucks per acreage. The value of 20 was chosen to account for seasonal variation, such as snow and large potholes; as well as degraded gravel lots.

3.3 Data Processing and Quality Control

To ensure the accuracy, consistency and reliability of the truck parking facility inventory, a multi-step data processing and validation approach was employed.

3.3.1 Validation of Geofences Utilizing Imagery

Spatial boundaries for each facility were validated using current aerial imagery, primarily through Google Maps and Esri Imagery. This process confirmed the physical layout, access points, and presence of truck parking areas. Facilities were geofenced based on visible infrastructure and proximity to eligible corridors.

3.3.2 Cross-Checking Across Sources

Facility attributes – including location, ownership and parking capacity were cross-referenced across multiple data sources. These data sources include company websites, third-party aggregators, WisDOT lists, and regional datasets. Discrepancies were resolved by prioritizing the most recent and authoritative source, with visual confirmation via aerial imagery from Google and Esri and Street View in Google Maps used as the final check.

3.3.3 Capacity Assumptions

Commercial facilities stall counts, when capacity was initially established, were first taken from company-reported numbers on official websites and then visually verified with current aerial imagery. If capacity information was unavailable or inconsistent across non-authoritative sources, stall counts were estimated through visual inspection of aerial imagery. Without formal marked parking stalls, such as gravel lots, the methodology outlined in 3.2.3 above was used to estimate facility parking capacity. Public facility capacities were taken directly from WisDOT datasets, and adjacent states were estimated via visual inspection due to lack of data.

3.3.4 Summary of Validation Approach

The inventory was built using a combination of authoritative datasets and manual validation. Where data gaps or data inconsistencies were identified, data was supplemented with current aerial imagery. Truck stall counts were visually confirmed when not available from authoritative sources. Quality control was conducted through selective visual verification, where a representative sample of facilities per region was manually reviewed to



ensure spatial and attribute accuracy. This approach balanced thoroughness with efficiency, resulting in a reliable dataset for planning and analysis.

3.4 Summary of Findings

A summary table (Table 2) has been developed comparing public and private truck parking facilities across the five WisDOT regions.

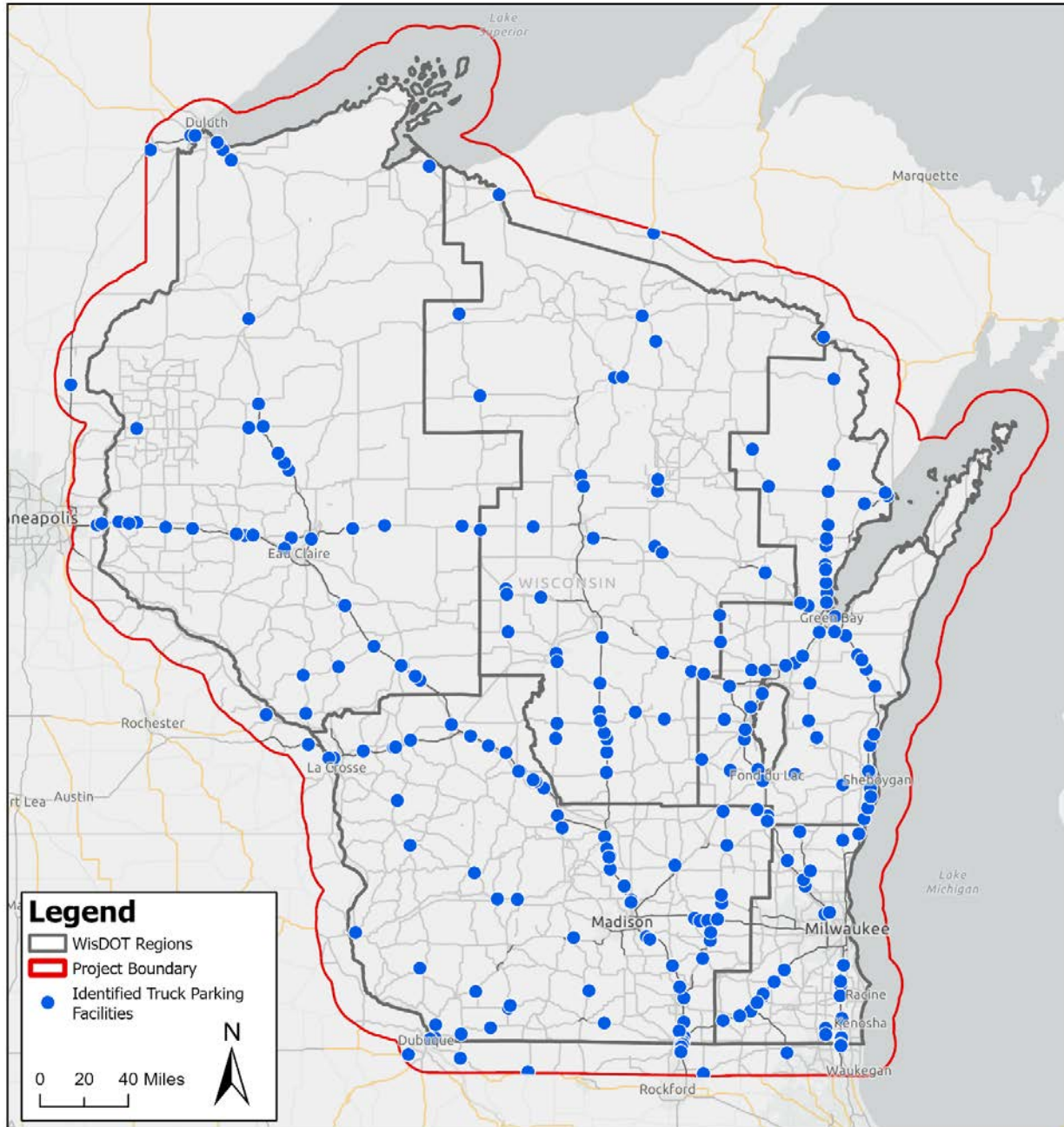
The inventory identified a total of 51 public and 237 private truck parking facilities across Wisconsin and the border areas in adjacent states, with 13.8 percent of total truck parking stalls in public truck parking facilities. The overall average truck stall capacity per facility is approximately 30 stalls, with the highest concentration of stalls being in WisDOT Southwest Region.

Table 2: Digitization Results

WisDOT Region	Public Facilities (count)	Private Facilities (count)	Public Counted Truck Stalls	Private Counted Truck Stalls*
Southwest	17	59	593	2,049
Southeast	7	26	111	1,278
Northeast	5	56	177	1,506
North Central	4	42	69	991
Northwest	10	34	229	1,142
Wisconsin State Total:	43	217	1,179	6,966
Illinois Border Area	1	13	10	1,008
Iowa Border Area	0	2	0	52
Michigan Border Area	2	1	8	0
Minnesota Border Area	5	4	104	48
Project Area Total:	51	237	1,301	8,094

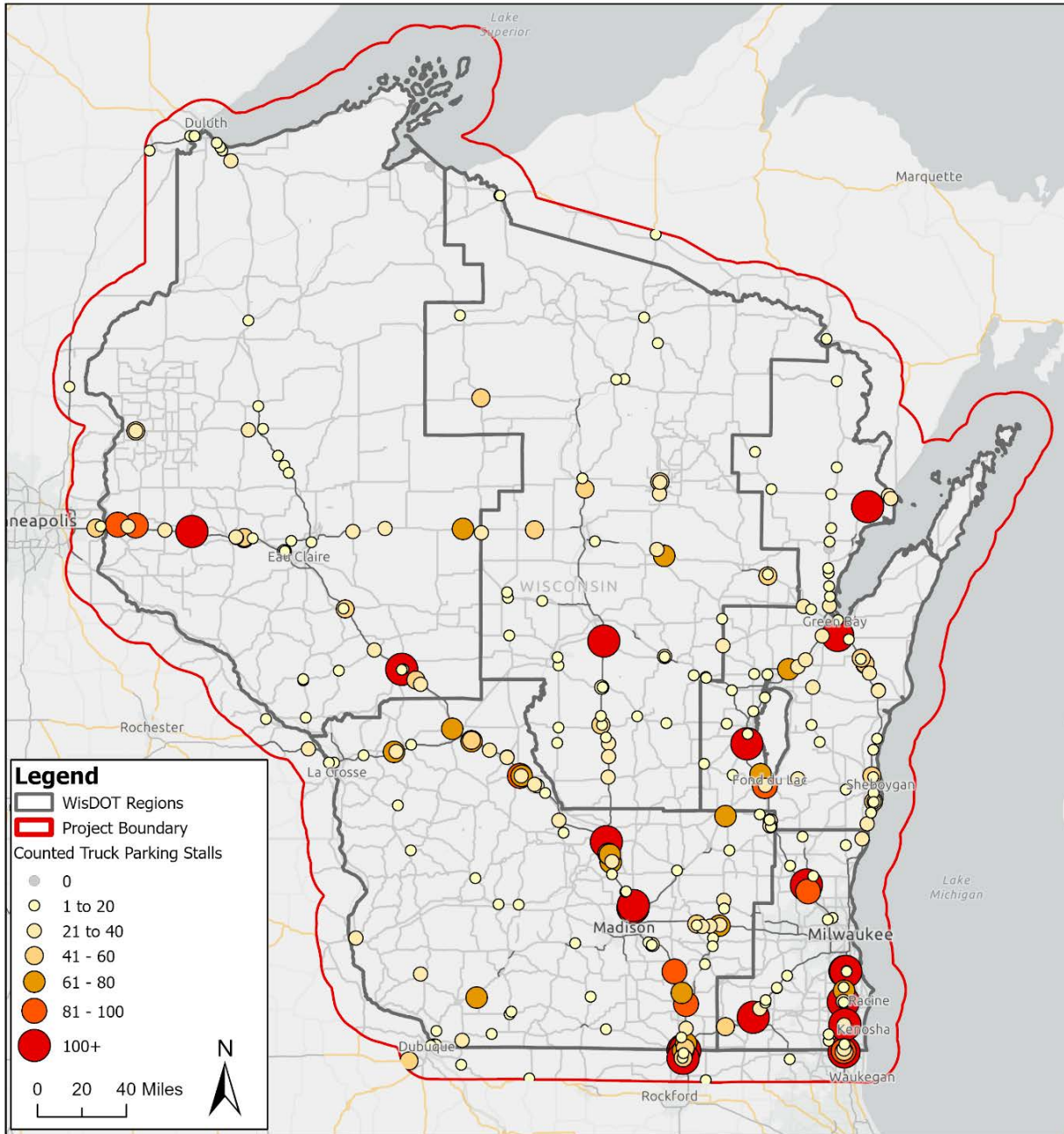
*All truck parking, **including gravel lots**, are included in this count.

Figure 10: Identified Truck Parking Facilities



Source: WisDOT (2025), Esri (2025)

Figure 11: Identified Truck Parking Stalls per Facility



Source: WisDOT (2025), Esri (2025)



3.5 Limitations

While the inventory provides a strong foundation for understanding truck parking availability across Wisconsin, several limitations should be noted. First, data on private truck parking facilities was often incomplete or inconsistent across sources, particularly for smaller independent operators. As a result, the reported capacities and amenities for some locations may not be fully accurate. In many cases, truck parking stalls at independent facilities were unmarked, which led to lower recorded stall counts. To address this limitation, a geospatial analysis was conducted to identify such areas within the study regions. All informal designated lots identified through this analysis were located within private parking facilities, and given an estimation based on size of lot. This methodology of estimation may have resulted in a minor underestimation of truck parking stalls at private facilities with informal designated truck parking.

Second, the use of aerial imagery for validation introduces a potential temporal lag. Imagery may not capture the most recent conditions, which may include facility changes and updates.



4 Demand and Forecasting

4.1 Demand Analysis

The section outlines the methodology and findings from the comprehensive, statewide evaluation of truck parking demand across Wisconsin. The demand analysis aimed to document the current truck parking demand across both public and private facilities within and adjacent to Wisconsin. This section discusses two types of truck parking: designated truck parking and undesignated truck parking. Designated truck parking is further identified as publicly or privately operated.

4.1.1 Data Sources and Processes

Data Sources and Definitions

Designated truck parking includes all identified public and private truck parking locations. In Wisconsin and the border area of neighboring states, there are 288 of these sites (237 private and 51 public).⁶ Public truck parking locations include SRAs, SWEFs, a limited number of park and rides, and other locations. Most public truck parking locations are adjacent to highways and contain dedicated entrance/exit ramps. Private facilities include locations operated by large companies such as Love's, Pilot Flying J, TA-Petro, and others. Private facilities are generally larger than public facilities and include additional amenities like restaurants, convenience stores, and fuel. Private facilities are normally located in close proximity to major highway interchanges.

Truck parking and parking areas at facilities were classified based on the following definitions:

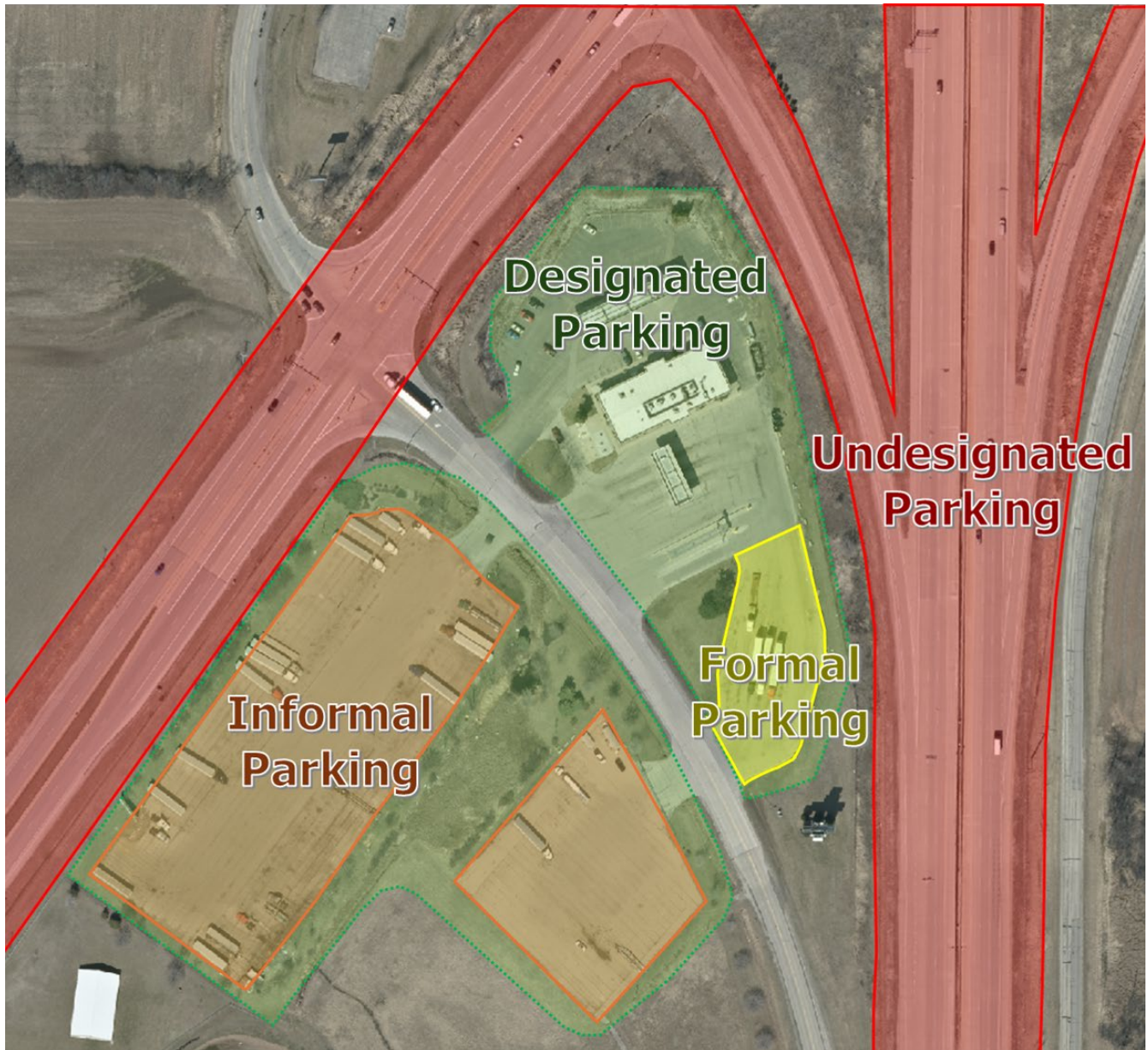
- **Formal Parking:** indicated by marked parking stalls, located at a designated parking facility.
- **Informal Parking:** can be a gravel or unpaved lot, still designated parking area but there are no lines indicated.
- **Designated Parking Area:** a designated parking area. Can be classified as formal or informal depending on pavement and stall markings. This includes designated parking facilities, such as Loves, Pilot, and Rest Areas.
- **Undesignated Parking areas:** these are areas that allow for overnight truck parking, but do not have a designated facility associated. This includes ramps, shoulders, and exits where permitted.

⁶ Safety Rest Area 51 and Safety Rest Area 52 were included in this analysis even though they were closed in 2025 and re-opened later after renovations. Demand was analyzed using 2024 data but compared to 2026 capacities.

Designated facilities may contain formal parking spaces, informal parking areas, or a combination of the two. Undesignated truck parking includes all truck parking locations that are not officially designated, signed, designed, or engineered for truck parking, such as the sides of ramps or the shoulders of roads,

The Planeview Travel Plaza (Figure 12) , located south of Oshkosh and shown below, illustrates how all parking types can be accommodated within a single private facility.

Figure 12: Truck Parking Classifications at a Private Facility



Source: Wisconsin Cartographer's Office (2025)

Figure 13 below illustrates how all parking types can be accommodated within a single public facility.

Figure 13: Truck Parking Classifications at a Public Facility



Source: Wisconsin Cartographer's Office (2025)

Some truck drivers use undesignated parking when failing to find a designated location to park when their HOS limits are up; others may use it for staging purposes or when waiting to enter pick-up and drop-off points. For the purposes of this study, undesignated truck parking was analyzed along segments of all interstate highways, U.S. highways, and state highways in Wisconsin. These segments were buffered to include the area within one mile of the centerline (on either side of the road) and were roughly 10 miles long. Within each segment, all LOCUS data points that were on private property or in any known designated truck parking facility were filtered out.



The primary source of data for this analysis is truck telematics data from LOCUS, a commercial data provider, for calendar year 2024. [LOCUS](#) provides GPS coordinates for a sample of heavy-duty trucks across the United States, including details on locations, stop durations, travel times, and directions for stops in Wisconsin. Data from LOCUS was isolated and paired to either geofenced public and private designated parking areas or the buffers around undesignated segments.

At designated parking areas, parking demand is measured by the number of trucks within the geofence, which generally includes all parts of the facility including the driveways, stalls, and parking lots for automobiles. Due to the limitations of pairing GPS data and geofences, trucks are counted as parking in “designated” areas if they are within this geofence.⁷

At undesignated segments, only trucks parked on public roads were included in the analysis; any observations of trucks parked on private roads (such as driveways or entrances to warehouses or distribution facilities), in designated parking areas, or in parking lots were removed from the analysis.

Besides LOCUS data, real-world, observed data from the Wisconsin TPIMS was used to create expansion factors from the raw LOCUS data. [The TPIMS system](#) is part of the larger related network of systems managed by the Wisconsin Traffic Operations and Safety Laboratory (TOPS) and MAASTO. This expansion process was verified by sampling publicly-available data from [Trucker Path](#), an app for truck drivers that shows crowd-sourced truck parking demand.

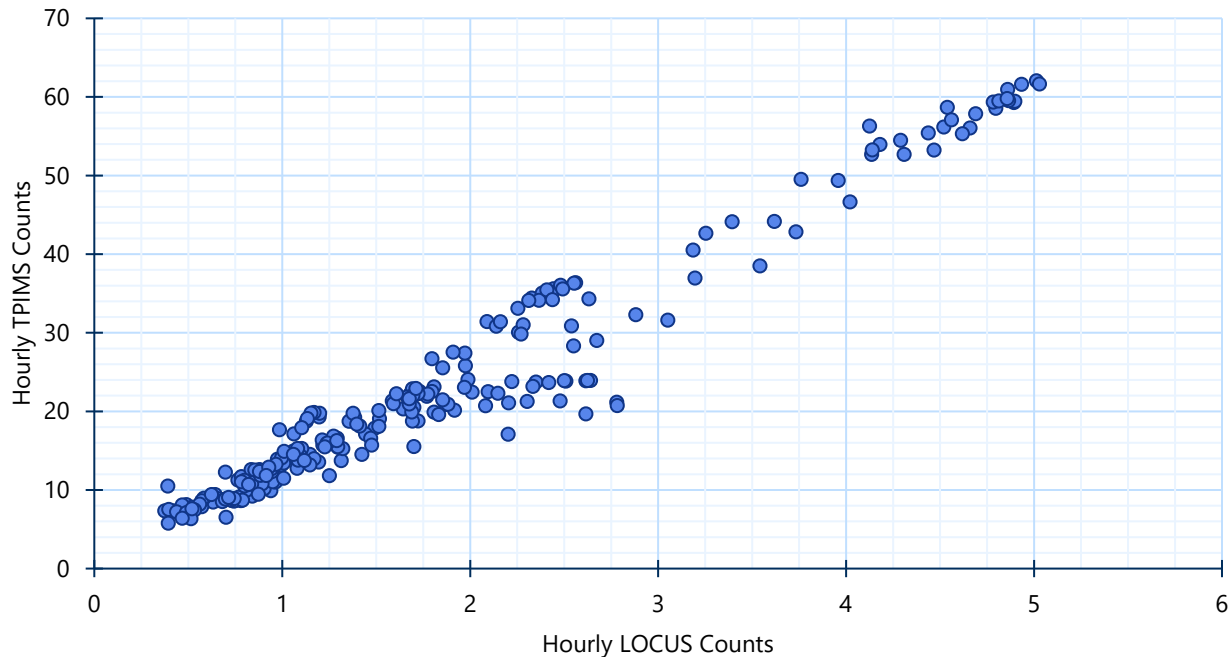
Data Processing & Expansion Factors

LOCUS data provides a snapshot of truck data and does not represent all truck travel in Wisconsin. The sample data captured in the LOCUS dataset, relative to the total truck population, is used to determine the expansion factors for GPS data. The analysis utilized expansion factors to scale the level of observations, providing an estimate for the entire population of trucks on Wisconsin’s highways. For example, if the average share of trucks captured was 20 percent in a given sample, an expansion factor of 5 would be applied to the sample data. In this example, if LOCUS data indicated that 10 trucks were parked at a particular location, the estimate for the total number of trucks parked is 50 trucks.

These expansion factors are developed by comparing LOCUS data with real-world observed data from the Wisconsin TPIMS database. TPIMS data for 2024 is available for 11 sites across the state. The data sources are compared by averaging observations over the entire year and for each hour of the day. A comparison between the two is shown in Figure 14.

⁷ A truck may technically be parked in the incorrect location, such as the grass next to a marked stall, yet it will still be counted as “designated” under this methodology due to the geofence boundaries.

Figure 14: TPIMS vs. LOCUS Hourly Counts



Source: LOCUS (2024), Wisconsin TPIMS (2024)

Using linear regression, the resulting equation is shown below. This regression returned an R^2 value of 0.98, which indicates a high and strong correlation between the two count variables.

$$12.272 \times (\text{LOCUS Hourly Count}) = (\text{TPIMS Hourly Count})$$

From this equation, the expansion factor for LOCUS data is 12.272. Therefore, an estimate can be developed for the true level of demand for a site by multiplying the results from LOCUS by 12.272. For example, if a site in LOCUS reports 1.6 trucks parked during a given hour, the estimated real value is just under 20 trucks.

Even with this strong correlation, it is important to recognize that these numbers represent estimated parking demand rather than exact counts. These expanded estimates, derived from LOCUS GPS data, will be used throughout this project's Final Report in all graphs, charts and tables.

An additional processing step for this data was to limit the data to averages across specific months and days-of-the-week.⁸ Truck parking demand is not consistent on a month-to-month or day-to-day basis, and there are certain days and months that historically show higher demand for truck parking. To analyze the "peak" truck parking conditions, data was limited to the busiest months of the year, April to October, and the busiest days-of-the-week, Tuesday to Friday. These ranges were found by obtaining LOCUS data for the entire year and

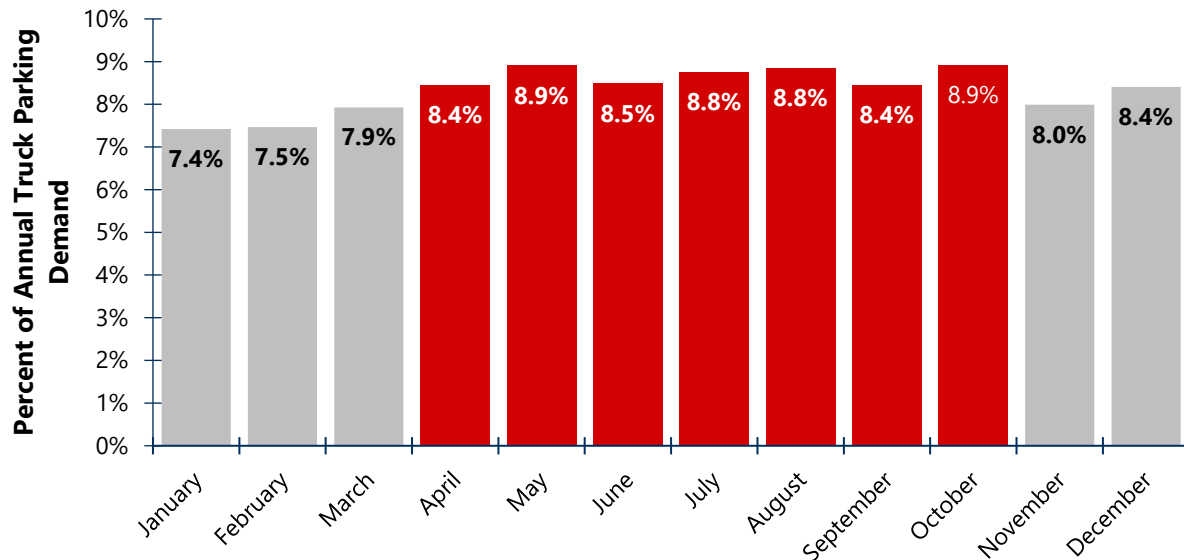
⁸ Some truck parking facilities were partially closed in 2024. Days with no observed truck activity at a facility were excluded from the annual average.



analyzing demand on a month-by-month basis and day-of-week basis. The results are shown below in Figure 15 and Figure 16. On average, the busiest months of the year each make up between 8 to 9 percent of annual demand, while the busiest days-of-the-week each include 15-18 percent.

Figure 15: Month-by-Month Variation of Truck Parking Demand

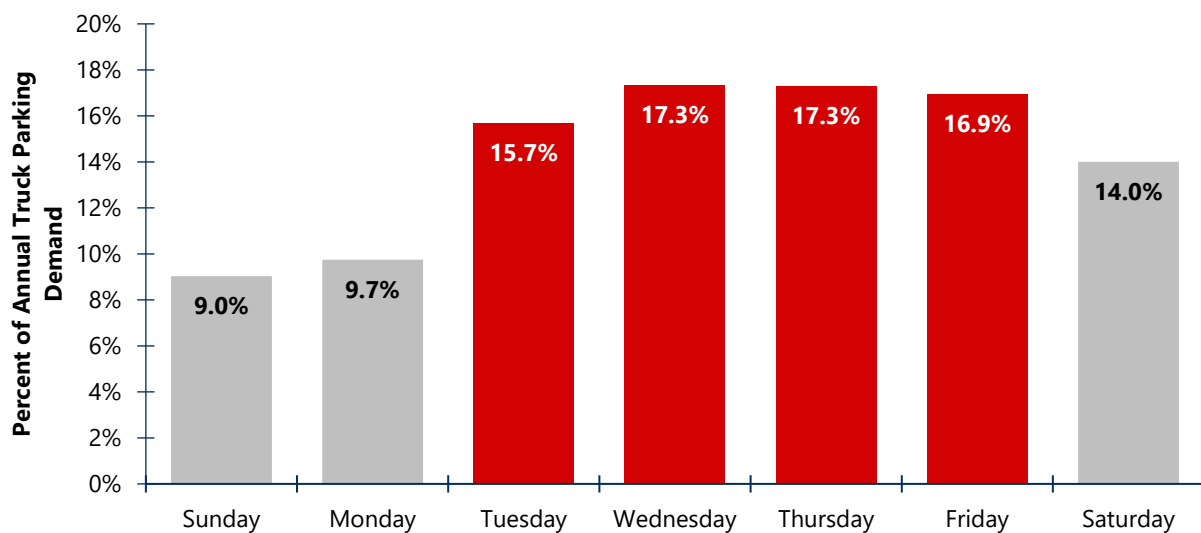
Peak demand occurs between April and October, with May, July, August, and October exhibiting the highest monthly shares.



Source: LOCUS (2024)

Figure 16: Day-of-the-Week Variation of Truck Parking Demand

Peak demand occurs between Tuesday and Friday, with Wednesday and Thursday exhibiting the highest shares of weekly truck parking demand.



Source: LOCUS (2024)



4.2 Truck Parking Demand Results

Throughout this section, truck parking demand is estimated on an hour-by-hour basis for each truck parking facility or undesignated segment. The hour-by-hour demand is calculated by averaging all the hours of valid data from the timeframe determined in Section 4.1.1. An additional dimension to this is looking at the peak hour of demand, which is the time when demand is highest throughout the entire state. This peak hour will be highlighted in various figures and tables throughout this section. Another way to view the data is by examining the statewide peak hour of demand. This peak hour is highlighted in the figures and tables throughout this section.

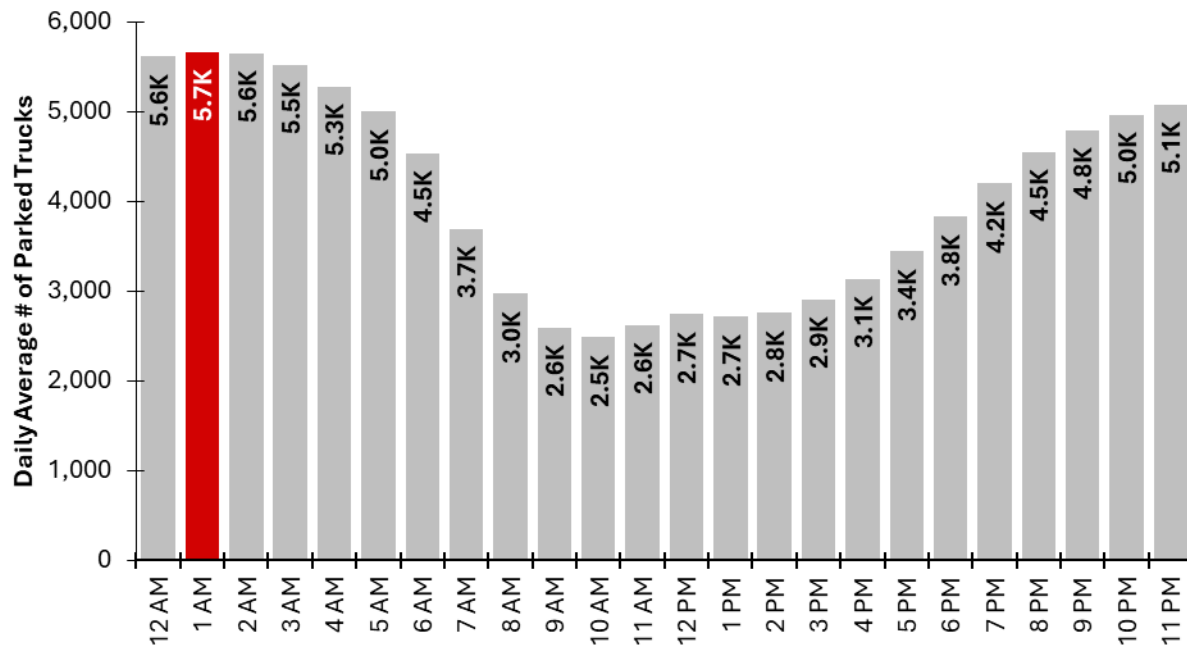
4.2.1 Designated Demand

In general, overnight hours experience the highest truck parking demand, reflecting drivers ending shifts and seeking rest. Specifically, demand is highest in the overnight hours of 1-2 AM. As of 2024, demand in the state peaks with an average of 5,700 parked trucks per day, then decreases until 10 AM with approximately 2,500 parked trucks per day. Demand remains steady from 11 AM-3 PM at approximately 2,600 to 2,900 parked trucks per hour until it begins to rise again at 4 PM. Figure 17 shows hour-by-hour demand for public and private designated truck parking facilities in Wisconsin and the neighboring states.

In the following sections of this report, peak hour demand refers to truck parking demand from 1-2 AM, highlighted in red in Figure 17 below.

Figure 17: Hour-by-Hour Daily Designated Demand

Peak hourly demand occurs from 1-2 AM, representing the highest average daily designated truck parking demand.

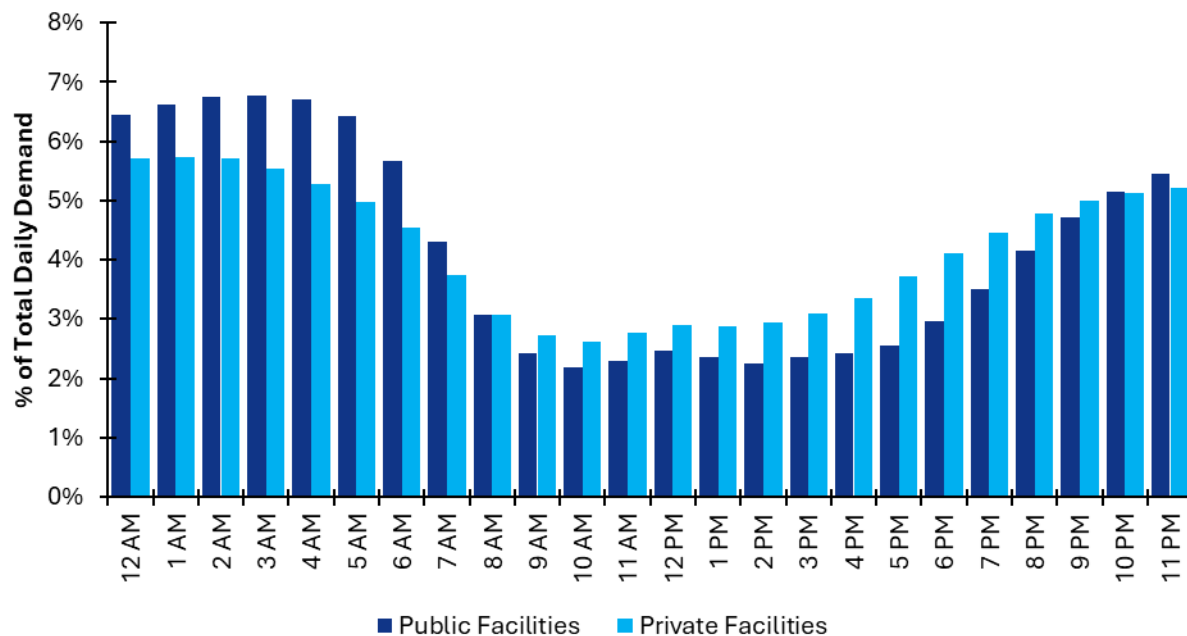


Source: LOCUS (2024)

There is greater demand at private facilities than at public facilities. Private facilities handle roughly 87 percent of statewide demand and public facilities represent 13 percent.

Private and public truck parking facilities exhibit distinct hour-by-hour demand patterns. Private facilities generally begin to fill earlier in the day, starting around 2 PM, and reach peak demand at approximately 1 AM. In contrast, public facilities typically begin to fill one to two hours later and peak slightly later, around 2 or 3 AM. These differences are illustrated in Figure 18 which shows the relative distribution of demand throughout the day. This distinction is likely due to a preference by most truck drivers for the amenities at full-service private truck stops. Once these facilities approach their maximum capacity, drivers then begin to seek public facilities as an alternative.

Figure 18: Hour-by-Hour Daily Designated Demand, Public vs. Private



Source: LOCUS (2024)

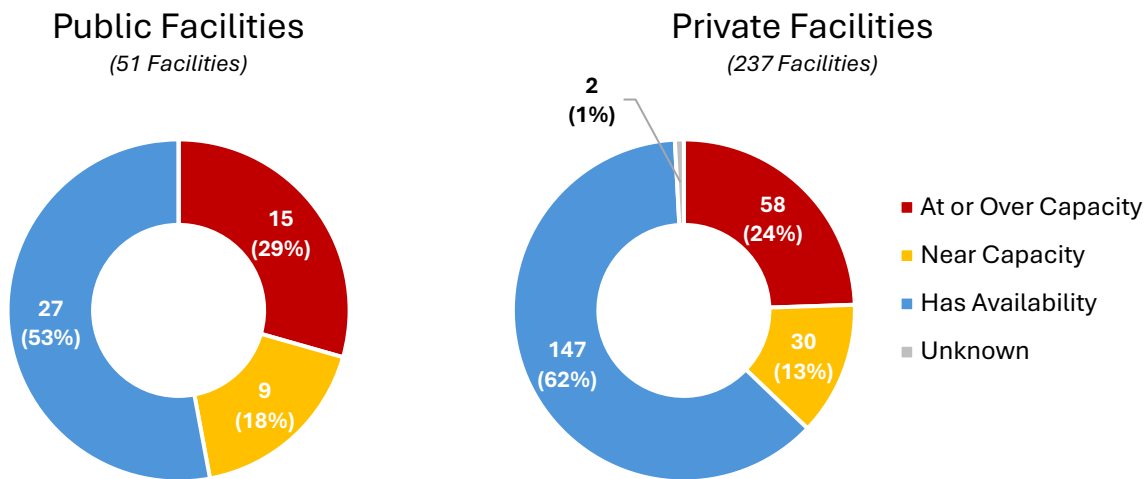
During the peak hour (1–2 AM), each facility can be categorized into four different demand groups based on demand-to-capacity ratio:

- **At or Over Capacity:** 80 percent capacity or higher during the peak hour
- **Near Capacity:** 50-80 percent capacity during the peak hour
- **Has Availability:** Less than 50 percent capacity during the peak hour
- **Unknown:** Either demand or capacity is not known

During the peak hour period, over half (62 percent) of private facilities have availability, another 13 percent are nearing capacity, and almost a quarter (24 percent) are at or over capacity. Public facilities experience slightly

more demand relative to capacity with a higher share of total facilities near capacity (18 percent) or at or over capacity (29 percent). The peak hour demand category for each public and private facility was determined and aggregated in Figure 19.

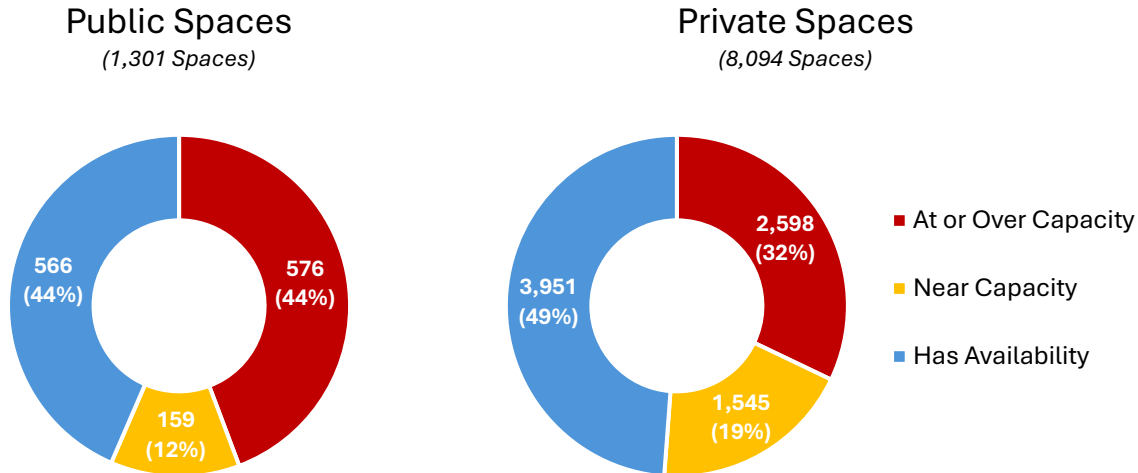
Figure 19: Peak Hour Utilization by Facility, Public vs. Private (1 AM)



Source: LOCUS (2024)

Although many facilities appear to have capacity, they often have far fewer truck parking stalls and are in more rural, less accessible parts of the state with lower demand for truck parking. Figure 20 takes this into consideration; it sums the total number of stalls across facilities to show the breakdown of demand relative to stalls instead of facilities. During the peak hour, utilization rates show that more than half of both public and private parking stalls are in the “near” or “at or over capacity” (56 percent and 51 percent, respectively).

Figure 20: Peak Hour Utilization by Stalls, Public vs. Private in 1 AM

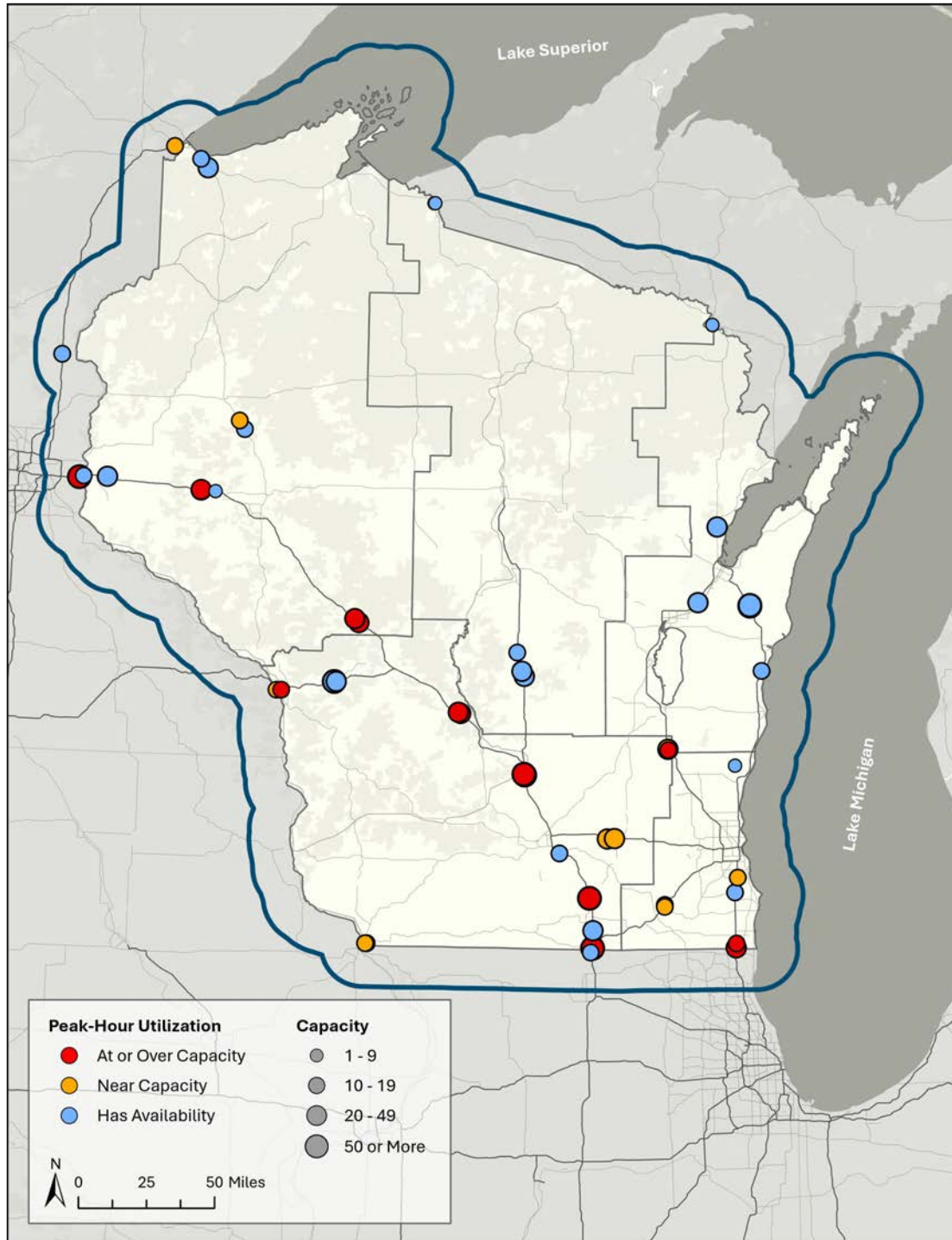


Source: LOCUS (2024)

In general, both the public and private facilities along the I-90/I-94 corridor from Minneapolis-St. Paul metropolitan area through Madison, WI, and down to Rockford, IL, are the facilities most consistently at or near capacity. The facilities south of Milwaukee, WI, and extending to Chicago, IL, are also generally over, at, or near capacity. Figure 21 and Figure 22 show a map of public and private facilities, respectively, color-coded by demand in the same way as previously discussed.

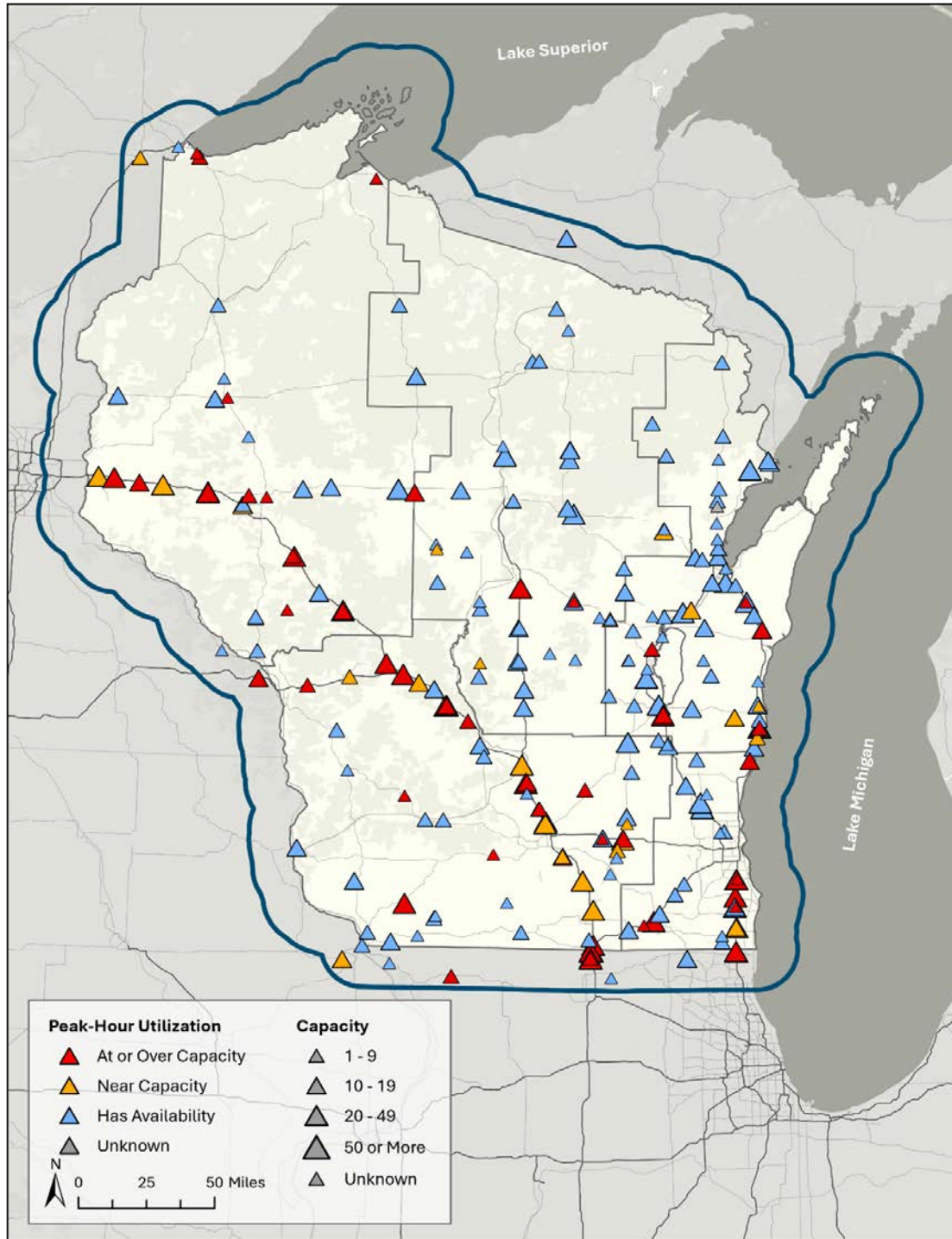
With few exceptions, the facilities near Green Bay, WI, the central part of the state, and in the northern half of the state are all smaller and not over, at, or near capacity. One notable exception is the large 100+ space Kwik Trip private facility just southeast of Village of Plover, WI, along I-39.

Figure 21: Peak Hour Demand at Public Parking Facilities 1 AM in 2024



Source: LOCUS (2024)

Figure 22: Peak Hour Demand at Private Truck Parking Facilities 1 AM in 2024



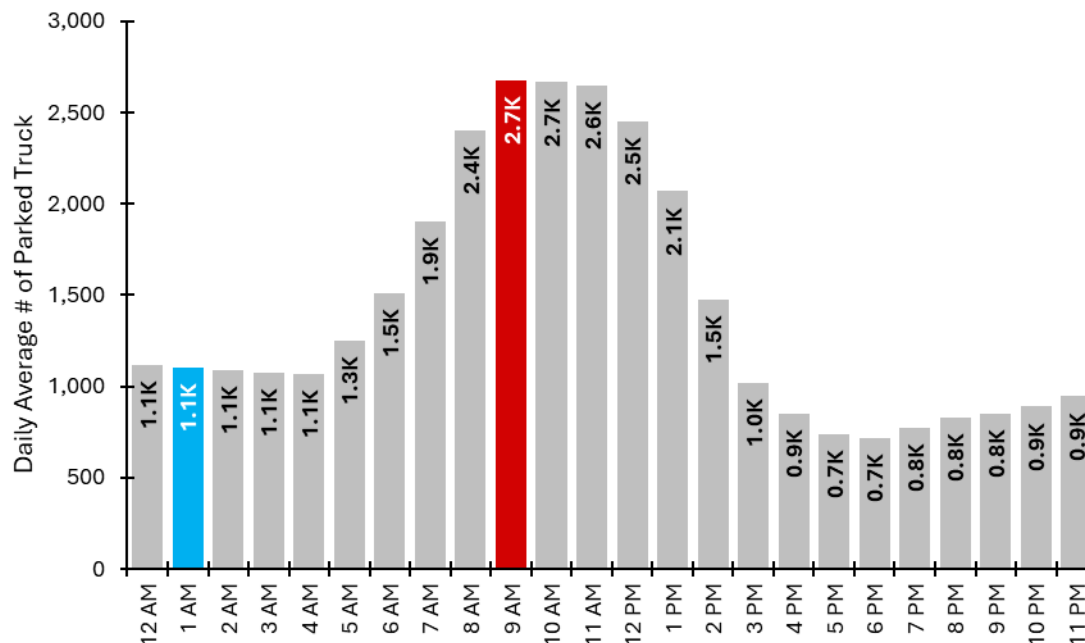
Source: LOCUS (2024)

4.2.2 Undesignated Demand

For this analysis, undesignated truck parking was examined along 10-mile segments of all interstate highways, U.S. highways, and state highways in Wisconsin and 15 miles into neighboring states. Undesignated parking demand shows a different temporal pattern compared to designated demand. While designated demand peaks at 1 AM, undesignated demand peaks in the morning to afternoon time periods, with the highest hourly period being 9-10 AM when an average of just over 2,700 trucks parked in undesignated areas. This pattern may be explained by trucks who park just outside their pick-up or drop-off locations during these times. For example, if a truck driver needs to be at a warehouse for a 10 AM pick-up time but there is no on-site parking, they may arrive early and park along the roadway nearby until their scheduled time. Figure 23 shows hour-by-hour demand for undesignated parking in Wisconsin and the border area of neighboring states.

Figure 23: Hour-by-Hour Daily Undesignated Demand

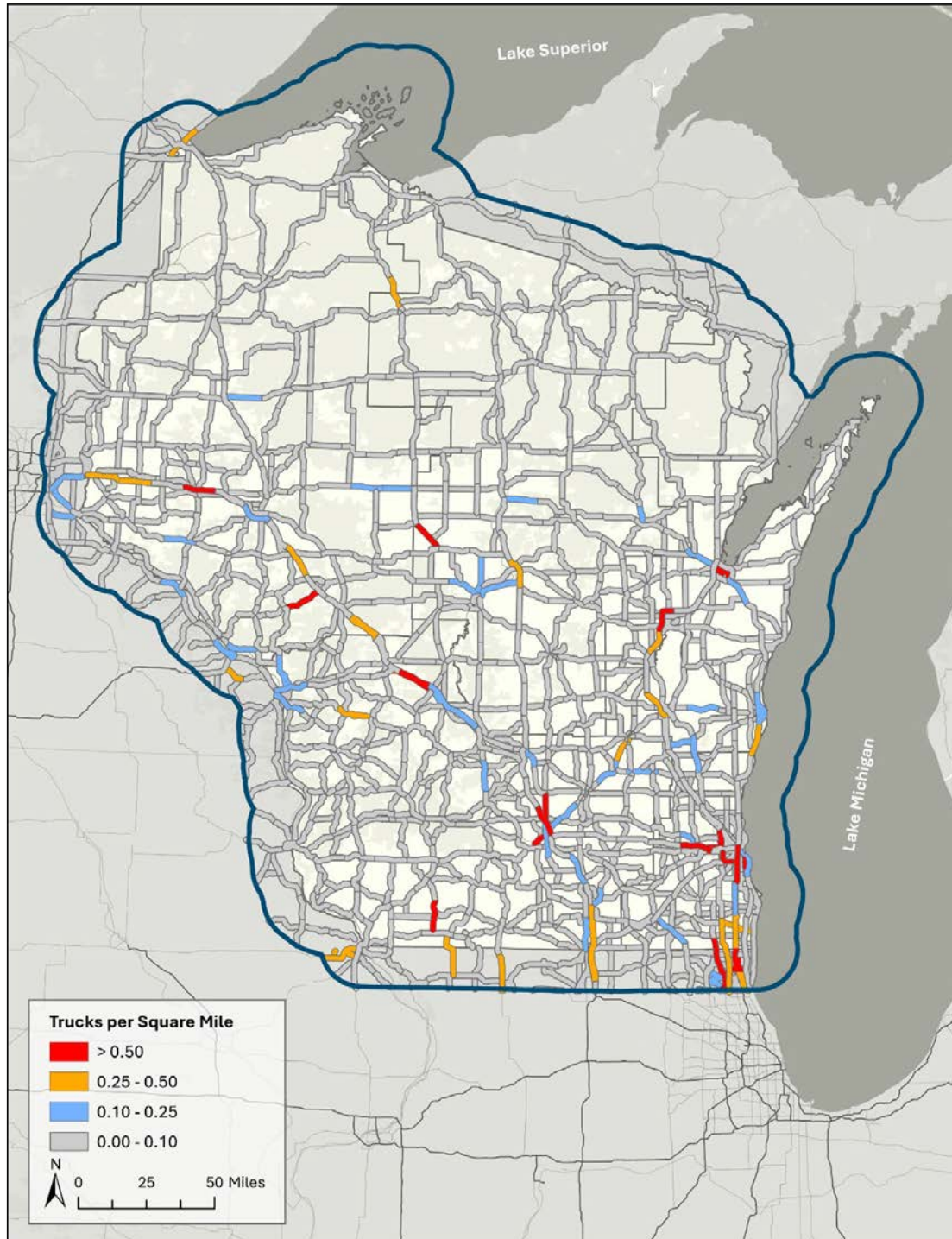
Designated demand peaks from 1-2 AM while overall demand peaks from 9-10 AM, representing the highest average daily undesignated demand.



Source: LOCUS (2024)

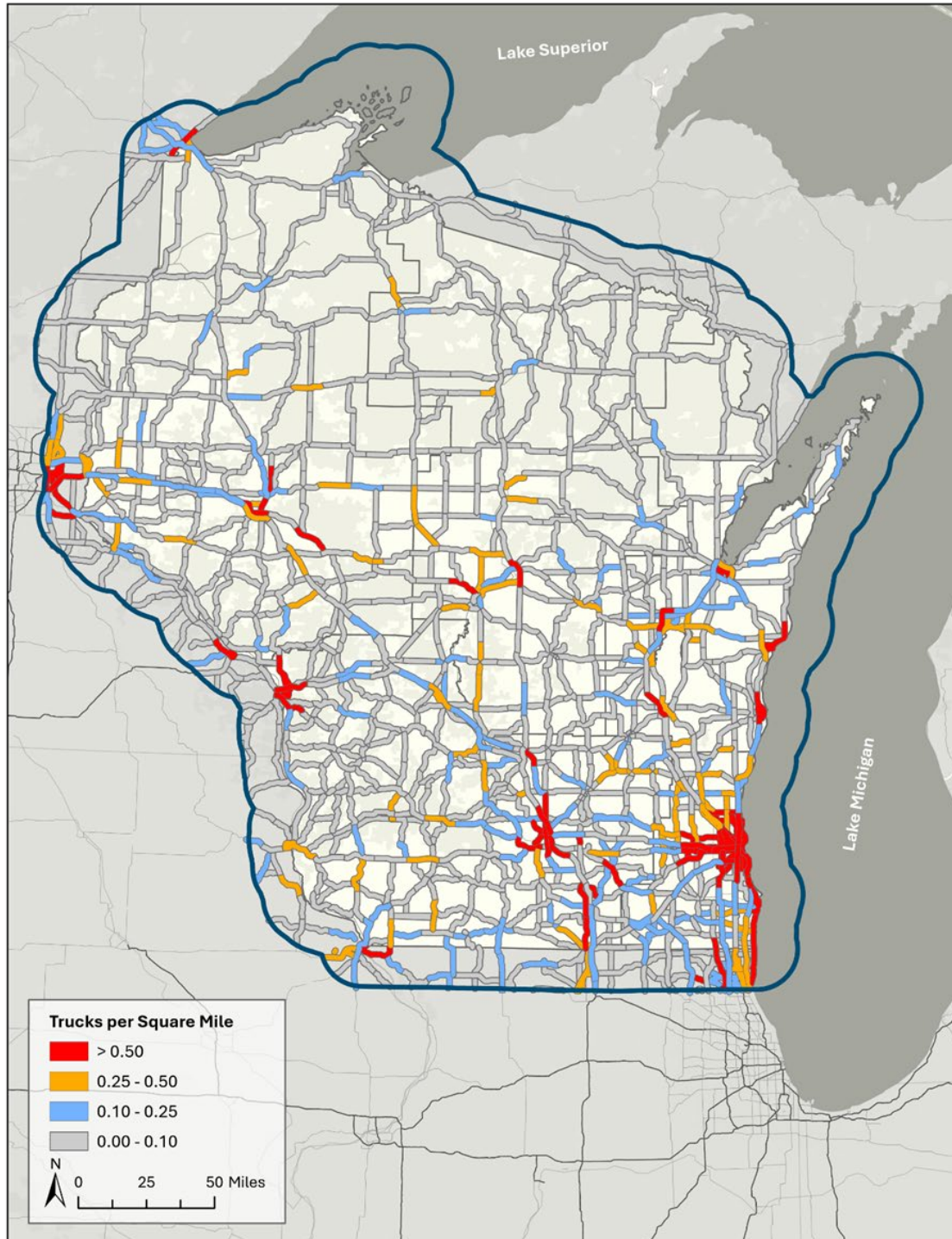
At the undesignated peak hour, one truck is parked for every 10 square miles along the majority of I-94, which runs from Milwaukee to Minneapolis-St. Paul metropolitan area. Similar conditions are observed along I-43, which travels from Milwaukee to north of Green Bay, Wisconsin. Milwaukee, in particular, experiences heavy truck parking in undesignated areas, seeing over 7 trucks parked per square mile. Figure 24 and Figure 25 show maps of undesignated parking both during the 1 AM peak hour and during the 9 AM period when undesignated parking is at its highest. The maps highlight the difference in undesignated parking demand that occurs throughout the state, but especially around large metropolitan areas, from 1 AM to 9 AM.

Figure 24: Undesignated Parking Demand at 1 AM in 2024



Source: LOCUS (2024)

Figure 25: Undesignated Parking Demand at 9 AM in 2024



Source: LOCUS (2024)



4.2.3 Gap Analysis

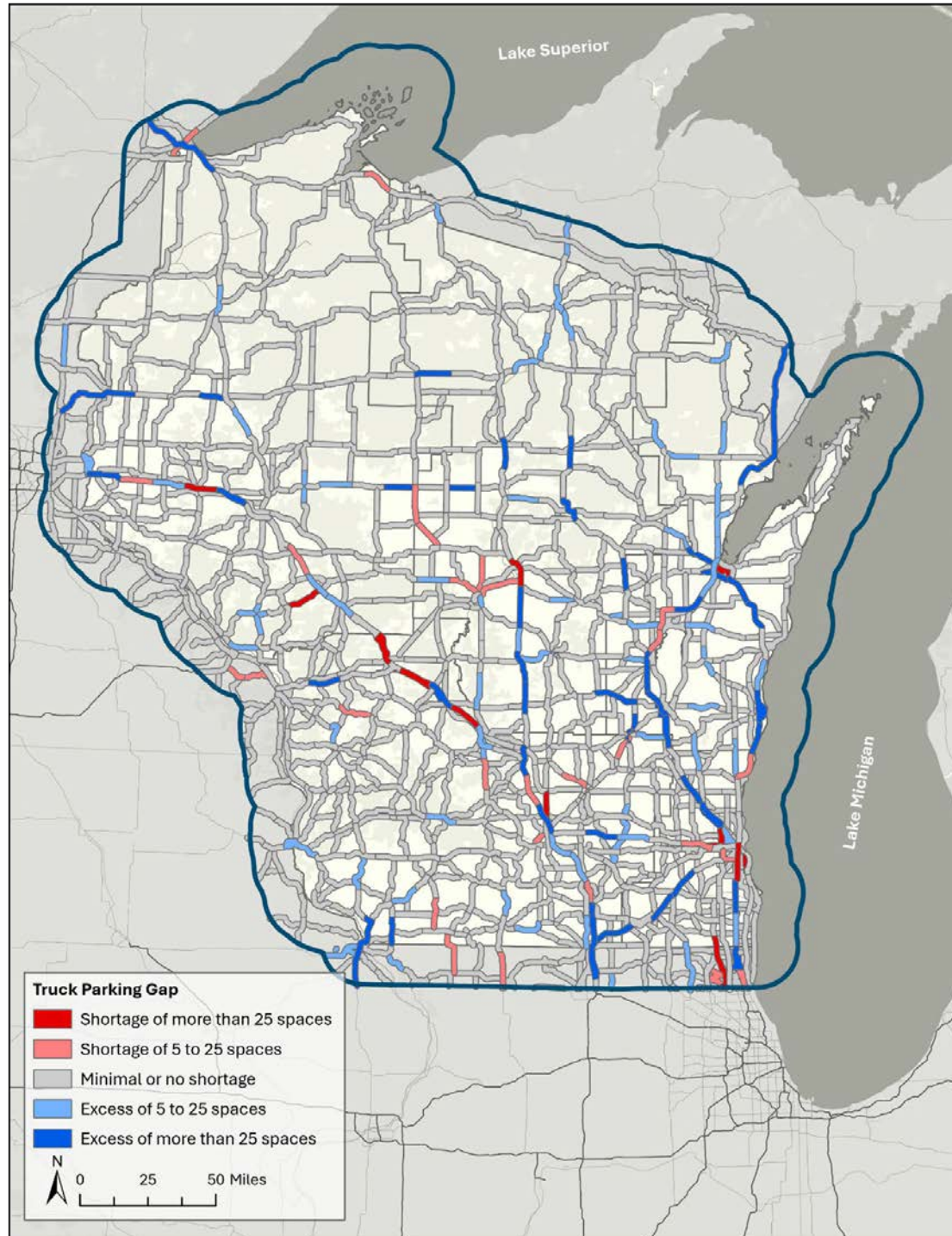
Combining designated (in Figure 17) and undesignated (in Figure 23) parking together gives insight into the truck parking gap, measured as the shortage or surplus between the truck parking supply and demand across Wisconsin as seen in the Table 3 gap analysis below. The shortage or surplus of truck parking is the difference between the number of spaces at designated truck parking facilities described in Section 4.2.1 and the demand for parking in both designated and undesignated areas during the statewide peak hour of 1 AM, as described in Section 4.2.1 and Section 4.2.2.

This analysis considers two different types of capacity: *formal capacity* and *total capacity*. *Formal capacity* includes only marked spaces at truck parking facilities while *total capacity* is formal capacity plus unmarked, as well as unpaved lots within the boundaries of designated truck parking areas. For example, LOCUS geofencing data is included in *total capacity*.

Overall, during the busiest months, days, and hours, statewide truck parking demand is approximately equal to formal capacity. Despite the overall balance of formal capacity, the gap varies Region by Region. The Southeast and North Central Regions all have more demand than formal capacity while the Northeast Region, Northwest Region, Southwest Region, and out-of-state facilities have greater formal capacity than demand. While more informative than a statewide gap, evaluating the truck parking gap by WisDOT region has limitations. In practice, a truck driver located on one side of a region cannot make use of available parking on the opposite side if it requires traveling significant distances.

Figure 26 shows a geographical representation of this gap analysis for 1 AM. Segments colored blue have a surplus of total truck parking capacity (formal spaces exceeding combined designated and undesignated demand), while segments shown in red indicate a shortage (formal spaces falling below demand). The primary areas with a shortage of total truck parking stalls are the I-94 corridor, the I-39 corridor near Village of Plover, and the I-41 corridor around Milwaukee. At the peak hour, 1 AM, these areas experience a shortfall of approximately 25 or more trucks, with demand exceeding available capacity at designated parking facilities.

Figure 26: Gap Analysis by Segment 1 AM in 2024



Source: LOCUS (2024)



Table 3 shows the net peak-hour shortage or surplus of capacity by WisDOT Region.

Table 3: Gap Analysis by Region, Peak Demand Hour at 1 AM

Wisconsin DOT Region	Designated Demand		Undesignated Demand	Aggregate Demand	Capacity		Gap	
	Private	Public			Formal Only	Total	Formal Only	Total
Northeast	533	31	121	685	882	1,683	197	998
North Central	394	16	80	490	450	1,060	-40	570
Northwest	852	142	152	1,146	1,225	1,371	79	225
Southeast	748	82	422	1,252	1,044	1,389	-208	137
Southwest	1,423	500	261	2,184	2,186	2,642	2	458
Out-of-State	871	66	67	1,004	1,164	1,250	160	246

Source: LOCUS (2024)

4.2.4 Other Truck Parking Statistics

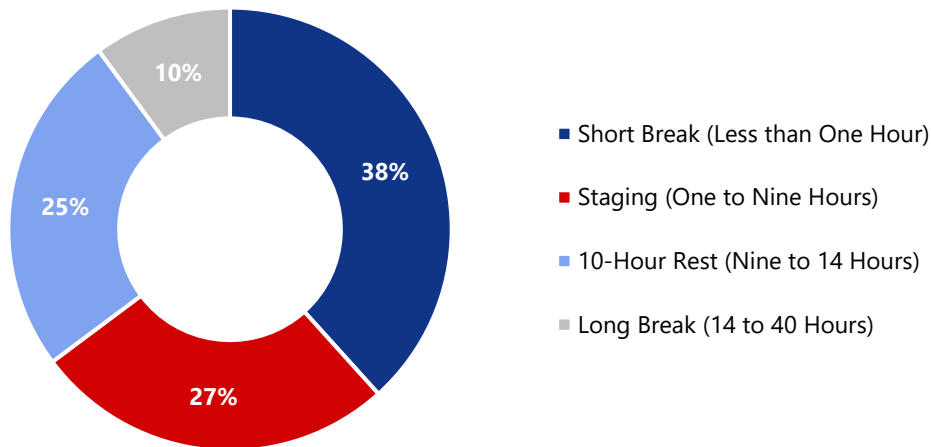
In addition to raw supply and demand, the LOCUS platform also provides additional truck parking statistics, such as parking duration. These statistics reflect parking demand across all 24 hours a day. Parking duration can be divided into four categories:

- **Short breaks (less than one hour):** These stops are generally less than one hour. The most common reason for this type of stop is to fulfill the HOS-mandated 30-minute rest break within the first eight hours of driving. Other reasons for a short stop could include stopping for food/restrooms, waiting for traffic conditions to subside, or stopping for a brief safety check to ensure the load is secure.
- **Staging activity (one to nine hours):** Staging parking to serve business needs is a type of “medium term” parking that typically lasts longer than one hour. It is commonly associated with trucks arriving early to wait for pick-up or drop-off, and is therefore most prevalent in urban areas, particularly those with high concentrations of industrial, warehousing, or commercial uses.
- **10-hour rest periods mandated by HOS requirements (nine to 14 hours):** These 10-hour stops are driven in large part by FMCSA HOS rules that require drivers to have a 10-hour rest break every 24 hours.
- **Long breaks (14 hours or more):** Many of these stops are likely associated with FMCSA HOS requirements for drivers to have a 34-hour break after seven or eight days on duty.

There is an inverse relationship between the length of the breaks and share of stops. As the durations increase, the share of the parking stops declines. Short breaks under one hour account for 38 percent of stops and the

subsequent categories, staging, 10-hour rest, and long breaks, account for 27 percent, 25 percent, and 10 percent of stops, respectively. Figure 27 summarizes parking duration at designated facilities across Wisconsin.

Figure 27: Parking Duration at Designated Facilities

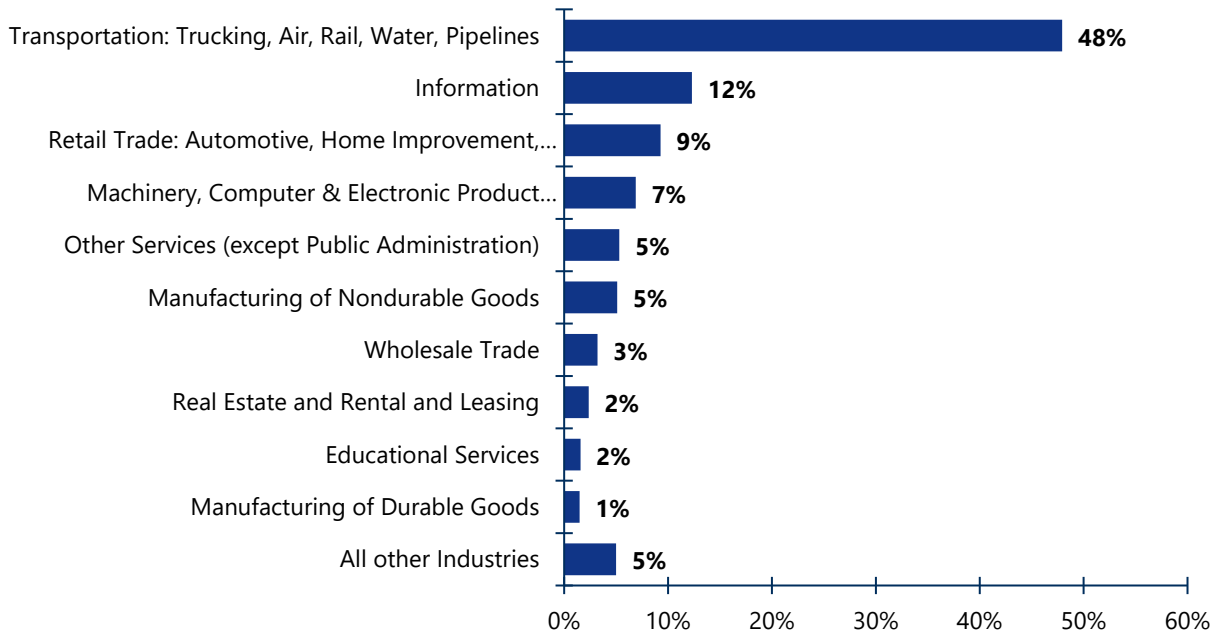


Source: LOCUS (2024)

In addition to truck parking duration, LOCUS also reports the industry associated with each truck.⁹ The *Transportation* sector is defined by the North American Industry Classification System [NAICS] codes 48-49 to include industries providing transportation or passengers and cargo and accounts for the largest share of truck stops at 48 percent, reflecting the sector's central role in statewide freight movement. The next highest is the *Information* sector, defined by NAICS code 51 to include publishing and software industries, accounting for 12 percent of truck stops. All other industries contribute 10 percent or less of the stops. Collectively, the top 10 industries represent 95 percent of truck stops, which are the primary generators of truck parking demand across the state. Figure 28 indicates the share of truck stops for the 10 most common industries.

⁹ An industry is a group of business establishments that do the same kind of economic activity, using similar production processes or providing similar services.

Figure 28: Truck Stops by Industry



Source: LOCUS (2024)

4.3 Forecasted Truck Parking Demand

Using information from WisDOT's Statewide Travel Demand Model (TDM), growth factors for truck parking were calculated and applied to existing demand to estimate future demand.

The TDM was utilized to develop compound annual growth rates (CAGR) between the base year (2017) and future year (2050) as part of the Truck Parking Study.

Twenty representative roadways were identified for select link analysis in the TDM including interstate highways, U.S. highways, and highway locations. TDM runs were conducted for the base year (2017) and future year (2050), and the truck assignment outputs were compiled for the twenty select link locations. Medium and heavy truck assignments were aggregated by total trips, average trip time, and average trip length. Truck trips were also summarized by county and by 30-minute travel time bins.

The base and future year truck assignment data was used to develop CAGR values for both medium and heavy trucks at each select link location. Average growth rates were established for medium and heavy trucks by facility type (interstate highway, U.S. highway, state highway) as well as by area type (urban, rural). Growth factors (2024-2035, 2024-2050) were calculated from the growth rates; these growth factors were applied to LOCUS (2024) data to establish future year forecasted truck demands.

In consultation with WisDOT's Traffic Forecasting Section, the project team determined that CAGR should be capped at 2 percent per year.



Model outputs also resulted in negative CAGR values for both the rural interstate highway and the rural U.S. highway medium truck categories. This is likely due to the Wisconsin Department of Administration (DOA) projecting declining population numbers in rural counties in 2050. Medium truck volumes are a function of the housing numbers which are tied to the DOA's population projections. The team chose to use the negative growth rates as opposed to assuming a floor of no growth/flat growth for locations in these two categories.

All locations where truck demand data for the Truck Parking Study were collected from LOCUS were then tagged as urban or rural and by the nearest highway designation to the location (interstate highway, U.S. highway, state highway), including designated facilities and undesignated polygons. CAGR values and corresponding growth factors for both medium and heavy trucks were then assigned to each Truck Parking Study location based on those two tags for use in developing future year forecasted truck demands. The finalized CAGR and growth factor values by category are included in Table 4.

Table 4: CAGR Values and Growth Factors by Area Type and Facility Type

	CAGR		Growth Factor 2024 to 2035		Growth Factor 2024 to 2050	
	Medium	Heavy	Medium	Heavy	Medium	Heavy
Rural Interstate	-0.09%	1.44%	0.990	1.171	0.977	1.451
Urban Interstate	0.92%	1.56%	1.106	1.186	1.269	1.496
Rural U.S. Highway	-0.38%	1.42%	0.959	1.168	0.905	1.444
Urban U.S. Highway	1.17%	2.00%*	1.136	1.234	1.352	1.673
Rural State Highway	0.07%	2.00%*	1.008	1.234	1.019	1.673
Urban State Highway	0.62%	1.20%	1.070	1.141	1.181	1.382

*CAGR was capped at 2 percent per year

Source: LOCUS (2024)

4.3.1 Forecasted Designated Demand

While all truck parking facilities are projected to experience a growth in demand for truck parking, 32 truck parking facilities (28 private, 4 public) are expected to shift to a higher peak hour demand category between the current utilization and future utilization in 2035. Nineteen (59 percent) of these facilities will move from "Near Capacity" to the "At or Above Capacity" category. Table 5 and Figure 29 show summary statistics of the change in truck parking facilities by peak hour demand category between the present day and 2035.

The three public facilities that are projected to go from "Near Capacity" to "At or Above Capacity" are SRA 13 Lake Mills, SRA 34 Chetek, and SRA 106 Dickeyville. The public facility that is projected to go from "Has Availability" to "Near Capacity" is SRA 36 East Troy.

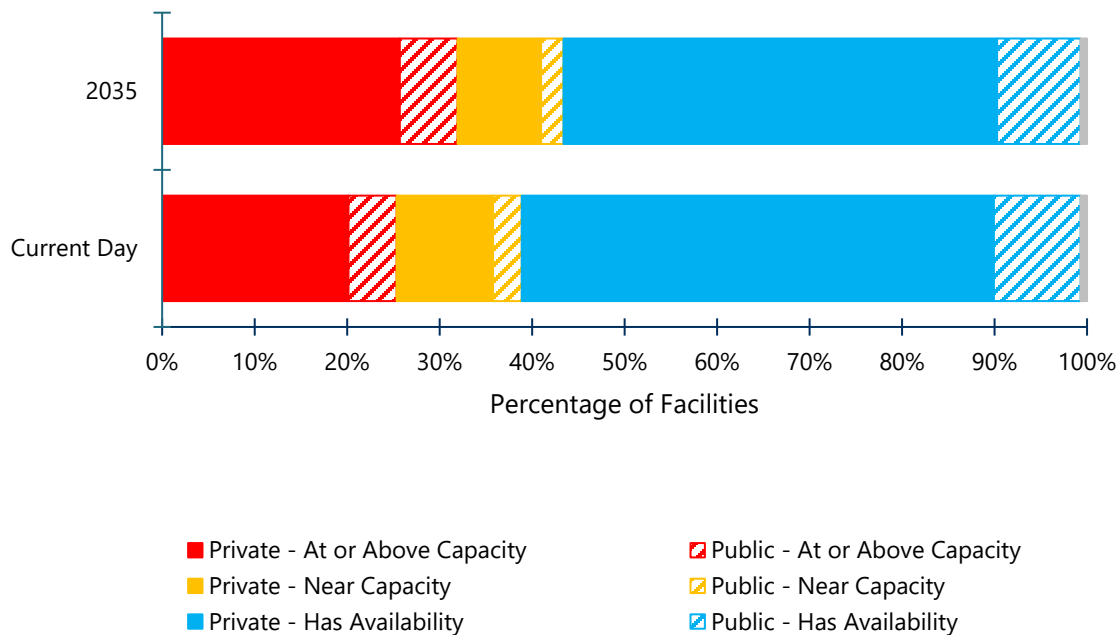


Table 5: Parking Facilities Shifting Demand Categories

Change in Category	Private	Public
Near Capacity to At or Above Capacity	16	3
Has Availability to Near Capacity	12	1
Total Change	28	4

Source: LOCUS (2024)

Figure 29: Parking Facilities Demand Categories Over Time



Source: LOCUS (2024)

A majority of the public facilities with an increasing demand threshold are located around the greater Milwaukee area. In contrast, the private facilities identified above are concentrated around Madison, and Minneapolis-St. Paul metropolitan area, in addition to Milwaukee. Figure 30 and Figure 31 show forecasted demand in 2035 at the peak hour (1 AM).

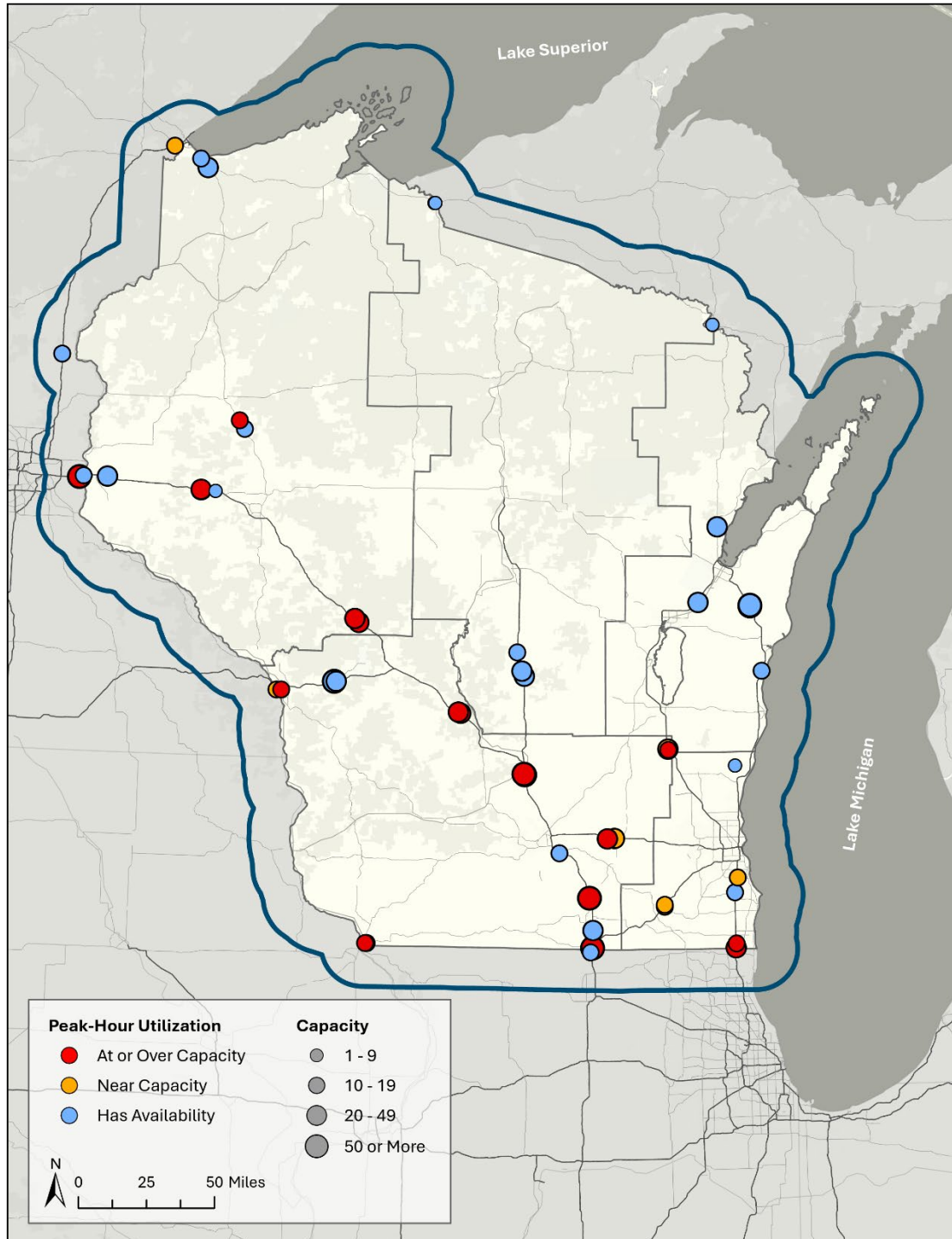
The public facilities that are "At or Above Capacity" in 2035 are the following. All are also "At or Above Capacity" in 2024 except where noted.

- SRA 9 Lyndon Station
- SRA 10 Mauston
- SRA 11 Portage
- SRA 12 Poynette



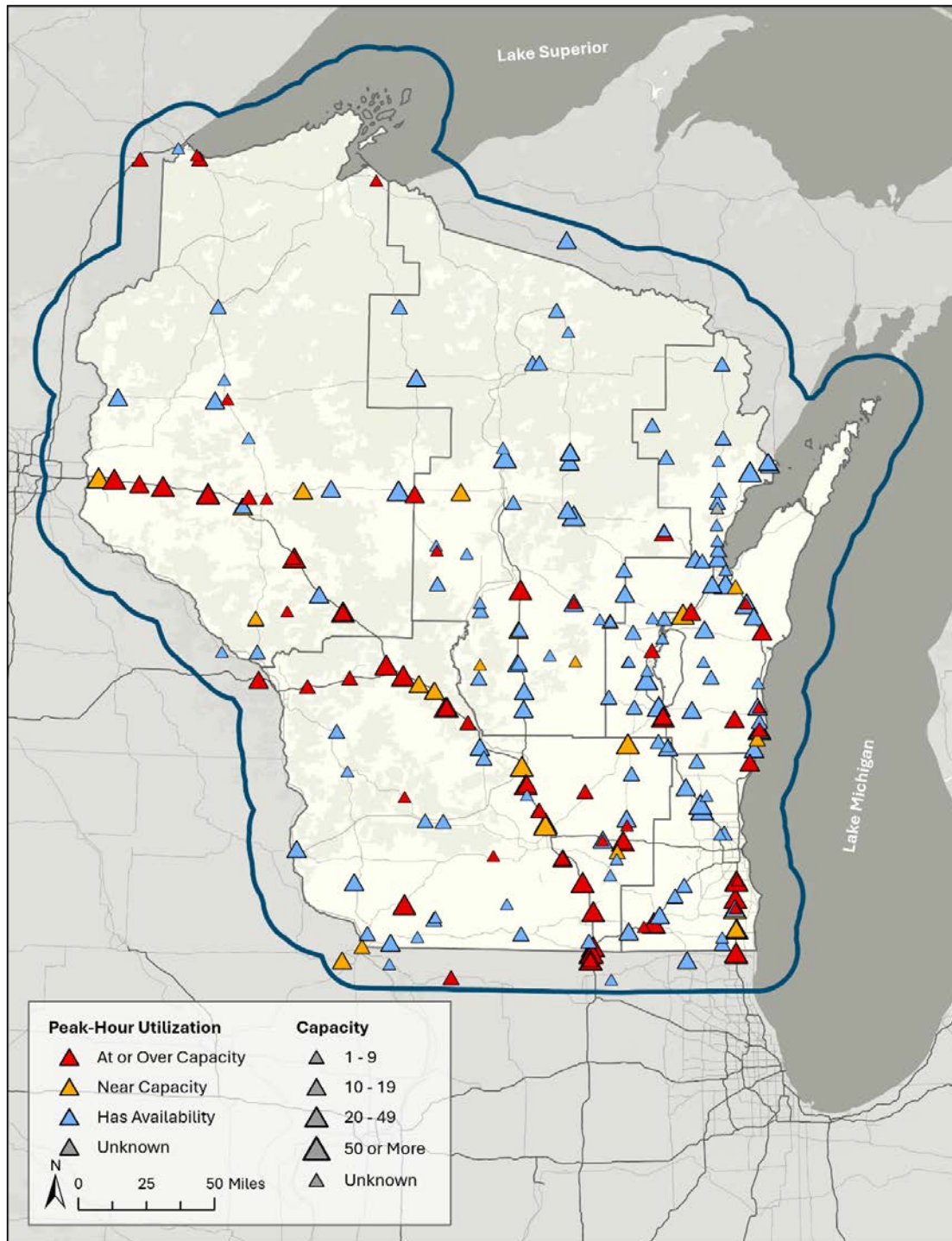
- SRA 13 Lake Mills (not at/above capacity in 2024)
- SRA 17 Janesville
- SRA 22 Beloit
- SRA 26 Kenosha
- SRA 31 La Crosse
- SRA 34 Chetek (not at/above capacity in 2024)
- SRA 53 Millston
- SRA 54 Black River Falls
- SRA 61 Menomonie EB
- SRA 62 Menomonie WB
- SRA 64 Theresa
- SRA 106 Dickeyville (not at/above capacity in 2024)
- SWEF 21 Kenosha
- Minnesota Welcome Center in West Lake, MN

Figure 30: Forecasted Demand at Public Designated Facilities at 1 AM in 2035



Source: LOCUS (2024)

Figure 31: Forecasted Demand at Private Designated Parking Facilities at 1 AM in 2035



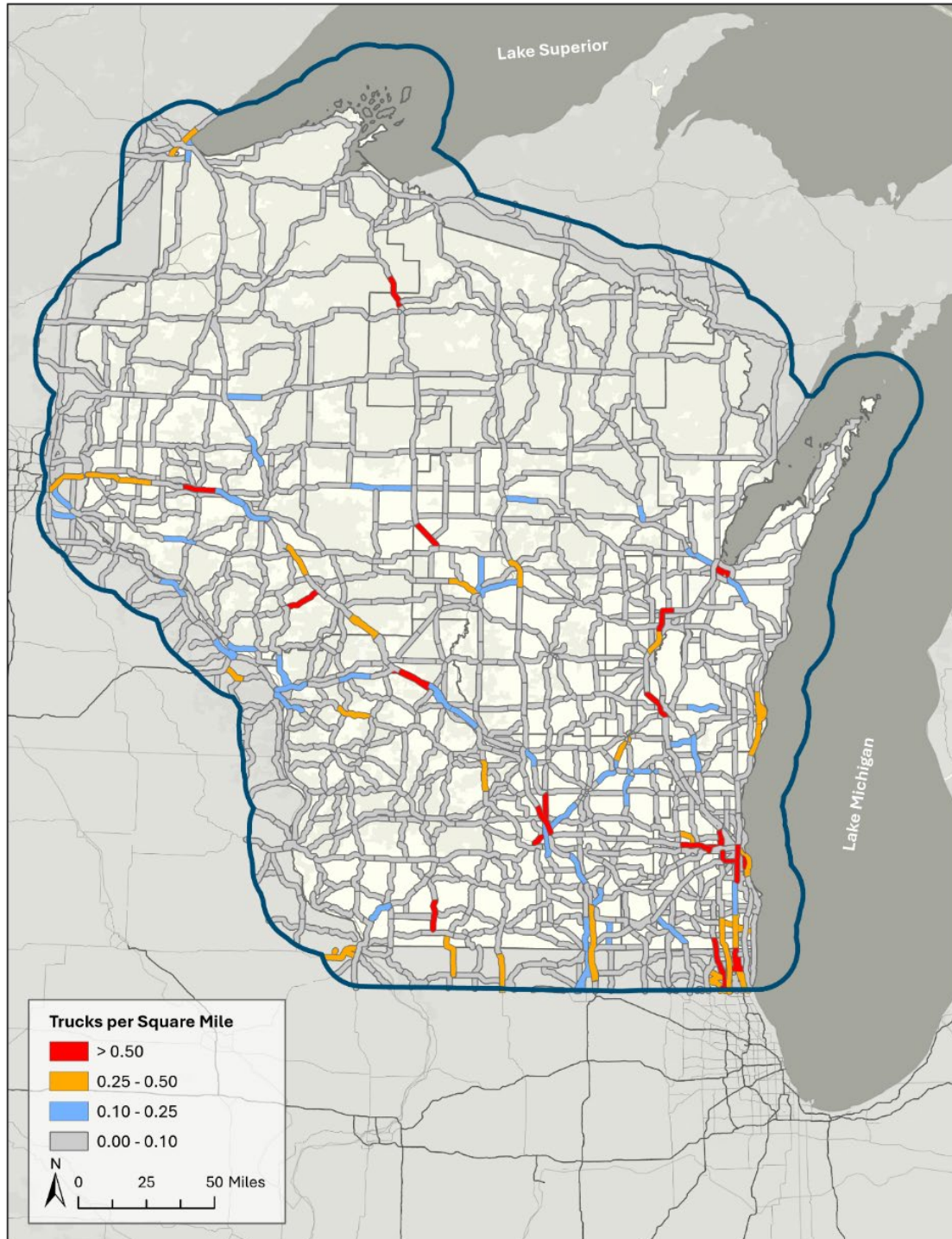
Source: LOCUS (2024)



4.3.2 Forecasted Undesignated Demand

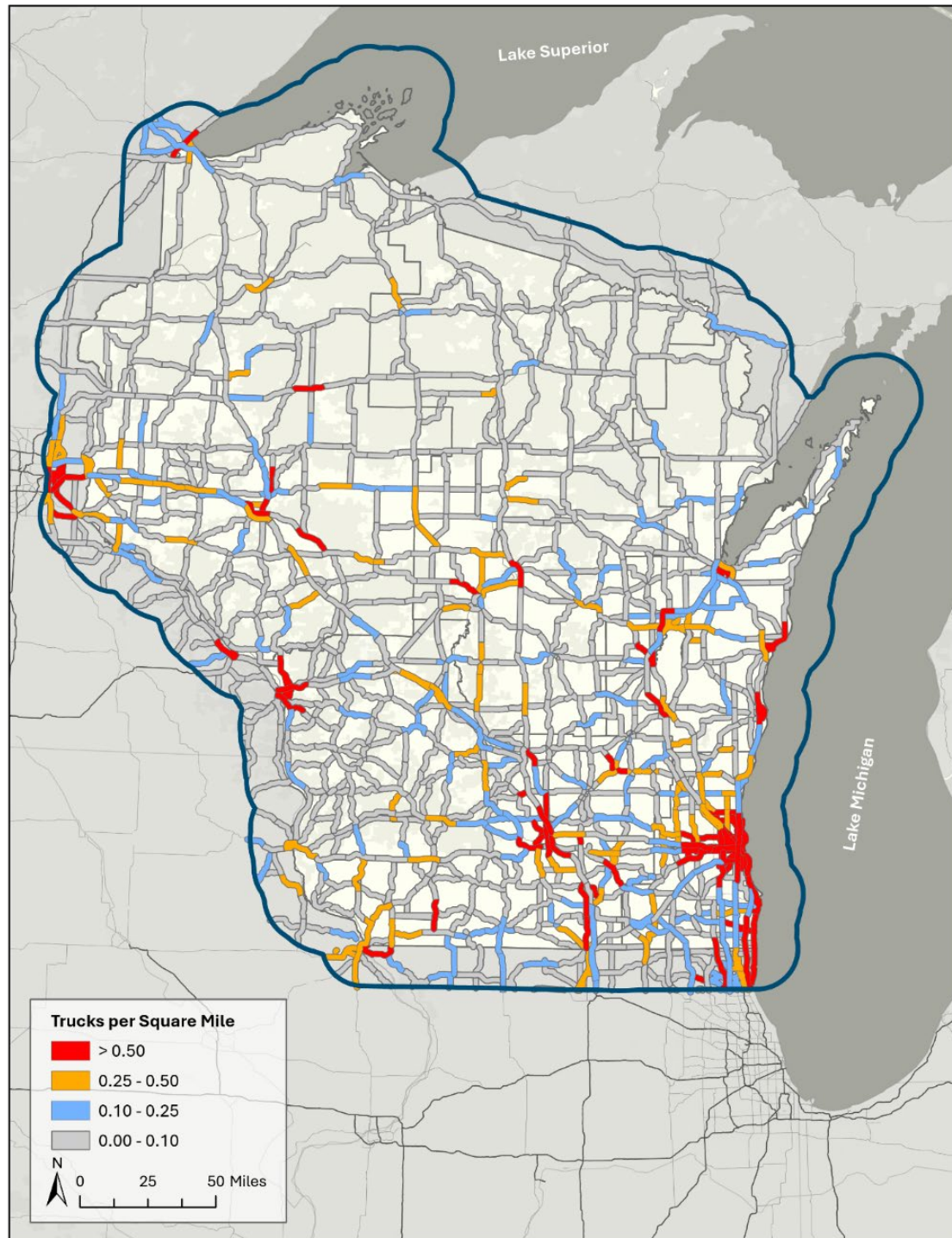
Figure 32 and Figure 33 show forecasted 2035 demand for undesignated locations for the peak hour (1 AM) and for the time at which undesignated demand is the highest (9 AM). At 1 AM, a majority of the undesignated demand for parking is located around the metropolitan areas of Milwaukee, Madison, and Green Bay. The 1 AM period was evaluated because it represents the peak overnight parking hour when demand for truck parking is highest and shortages are most likely to result in the use of undesignated parking locations. In contrast, demand for undesignated parking at 9 AM is more distributed throughout the state, with the highest demand concentrated around the cities listed previously, as well as along I-94 leading to Minneapolis-St. Paul metropolitan area. Projected increases in truck volumes through 2035 indicate that, without implementation of recommended improvements, existing parking facilities will become increasingly constrained, forcing more drivers to utilize undesignated locations such as shoulders, ramps, and adjacent informal areas.

Figure 32: Undesignated Demand at 1 AM in 2035



Source: LOCUS (2024)

Figure 33: Undesignated Demand at 9 AM in 2035



Source: LOCUS (2024)



5 Safety

The section outlines the methodology and findings from the comprehensive, statewide evaluation of truck parking safety across Wisconsin. The safety analysis focuses on infrastructure, enforcement, and safety-related aspects of truck parking across the state. Safety datasets from WisDOT collectively offer insights into existing truck parking facilities, crash occurrences involving parked commercial motor vehicles (CMVs), enforcement actions for illegal parking, and operational compliance data.

5.1 Data Sources and Processing

Several data sources provided by WisDOT were used to support the truck parking safety analysis. Together, these datasets describe truck parking supply, enforcement activity, crash history, and driver compliance behavior across Wisconsin.

Information on SRAs and SWEFs were used to establish the baseline inventory and spatial distribution of publicly provided truck parking. This dataset includes facility locations, geographic coordinates, and truck stall counts, allowing designated public parking capacity to be evaluated in relation to observed safety outcomes.

Crash data involving parked CMVs from 2017 through June 2025 was used to assess safety risks and identify spatial and temporal crash patterns associated with truck parking. Where available, crash records included geographic coordinates to support spatial analysis. Events without geocoordinates were identified and are recommended for exclusion unless a method is identified to preserve data integrity while maintaining spatial consistency. Data element code documentation accompanied the crash records and was used to clarify specific variables and ensure accurate interpretation throughout the analysis.

Enforcement data consisting of warnings and citations issued by the Wisconsin State Patrol for illegally parked CMVs between from 2015 through June 24, 2025 was also incorporated. These records, which include geocoordinates where available, were used to identify locations with frequent non-compliant parking behavior and to examine enforcement trends over time. Similar to the crash data, enforcement events without geographic information were flagged for exclusion unless they could be reliably incorporated without compromising analytical accuracy.

Driver compliance and inspection data was used to evaluate operational factors that may influence parking behavior. This dataset includes violations related to HOS regulations (395.3) and false log violations (395.8e) for property-carrying CMVs. The data spans April 2024 through June 2025, reflecting updates to CVSA out-of-service criteria that became effective on April 1, 2024. Each record represents a violation event rather than a unique driver, and multiple violations may be associated with a single inspection.

Finally, truck parking sign data was used to identify locations where WisDOT has deployed Dynamic Message Signs (DMS) that display real-time truck parking availability. These “blue” signs are part of the TPIMS. They were included to visualize where real-time parking information is available for designated public locations to drivers and how these locations relate to parking demand, enforcement activity, and safety outcomes.



5.2 Data Cleaning and Processing

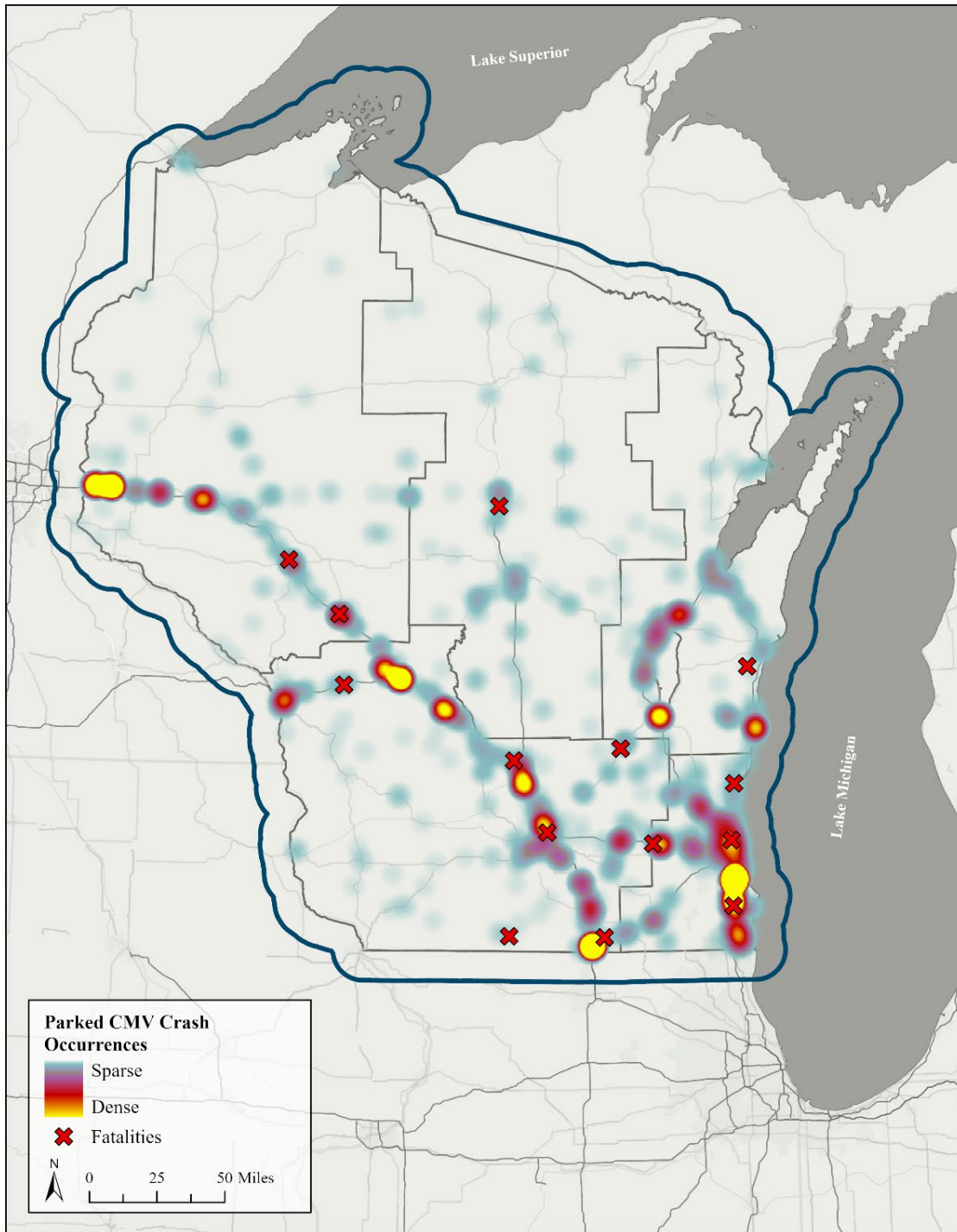
After integrating data provided by WisDOT, the selection tool was used to isolate all incidents located within designated and undesignated parking facilities. This was done separately for each layer: DSP inspection violations, warnings, citations, and crashes. For designated parking facilities, a 0.15-mile buffer was used to isolate incidents that occurred within the designated parking area. This buffer size was utilized to account for large lot sizes, potential GPS drift, and ramps for SWEFs and SRAs. All data, crashes, citations, warnings, and inspection violations falling within these buffers were linked to the corresponding facilities, and the results were saved for further analysis. Since the undesignated parking layer was a polygon, the buffer was not applied. In the case of data falling into both designated and undesignated areas, the data was assigned to the designated parking area to create discrete data sets. To ensure accurate distance calculations, the facility data was reprojected to a projected coordinate system (WGS 1984 EPSG).

At this stage, both the designated and undesignated master datasets include facility attributes along with crashes, citations, warnings, and inspections. This categorized and integrated dataset forms the foundation for subsequent safety analysis.

5.2.1 Crash Analysis

Crash data discussed in this section involves parked CMVs from 2017-June 2025. This data was spatially linked to Wisconsin's designated and undesignated parking areas in the same manner as enforcement data. Only crashes with geocoordinates were included in this analysis, consistent with WisDOT's recommended data integrity practices. Figure 34 displays a heatmap of crashes involving parked CMVs as well as the locations where the incidents were fatal. Overall, the highest concentration of crashes occurred around urban areas and along segments with high travel demand, with I-94 in Milwaukee seeing the greatest density of crashes. The year with the highest overall crashes and highest property damage was 2022, as opposed to the year with the greatest fatalities involving CMVs being 2023. Table 6 further breaks out the classification of all crashes that are CMV involved.

Figure 34: Heatmap of Parked CMV Crash Occurrences (2017–June 2025)



Source: WisDOT (2025)



Table 6: Total Parked CMV Crashes within Wisconsin

Year	Fatal	Injury	Property Damage	Grand Total
2017	0	16	189	205
2018	2	22	241	265
2019	2	18	272	292
2020	2	7	234	243
2021	1	18	254	273
2022	2	21	292	315
2023	3	13	275	291
2024	1	17	260	278
2025*	1	5	98	104
Grand Total	14	137	2,115	2,266

*Through June

Source: WisDOT (2025)

Among all crashes that occurred, 0.62 percent involved fatalities, 6.05 percent resulted in injury, and 93.34 percent were reported as property damage only. The percentage breakdown of total crashes occurring, broken down by designated and undesignated parking areas, can be found in Table 7.

Table 7: Percentage Breakdown of Total Crashes by Severity

	Fatal	Injury	Property Damage	Grand Total
Total Count	14	137	2,115	2,266
Total Crash Percentage	0.62%	6.05%	93.34%	100%
Designated Count	1	11	1,266	1,278
Designated Percentage of Total Crashes	7.14%	8.03%	59.86%	56.40%
Undesignated Count	13	126	849	988
Undesignated Percentage of Total Crashes	92.86%	91.97%	40.14%	43.60%

* Due to safety reasons, operable vehicles may be moved from the undesignated/illegal roadway to nearby "undesignated/legal" parking locations before a crash is documented. Consequently, the recorded geolocation may represent the location where the report or citation was completed rather than the actual crash location, as GPS coordinates may automatically default to the State Trooper's vehicle location.

Source: WisDOT (2025)

5.2.2 Designated Parking Crash Analysis

There were 1278 crashes that occurred between 2017 and June 2025 within designated parking areas. The crash severity is overwhelmingly property-damage-only, making up 99.06 percent of the crashes that occurred within the designated parking area. Injury crashes make up 0.86 percent of crashes within designated parking areas, while fatalities involve 0.08 percent of crashes in designated parking areas, as displayed in Table 8 below.



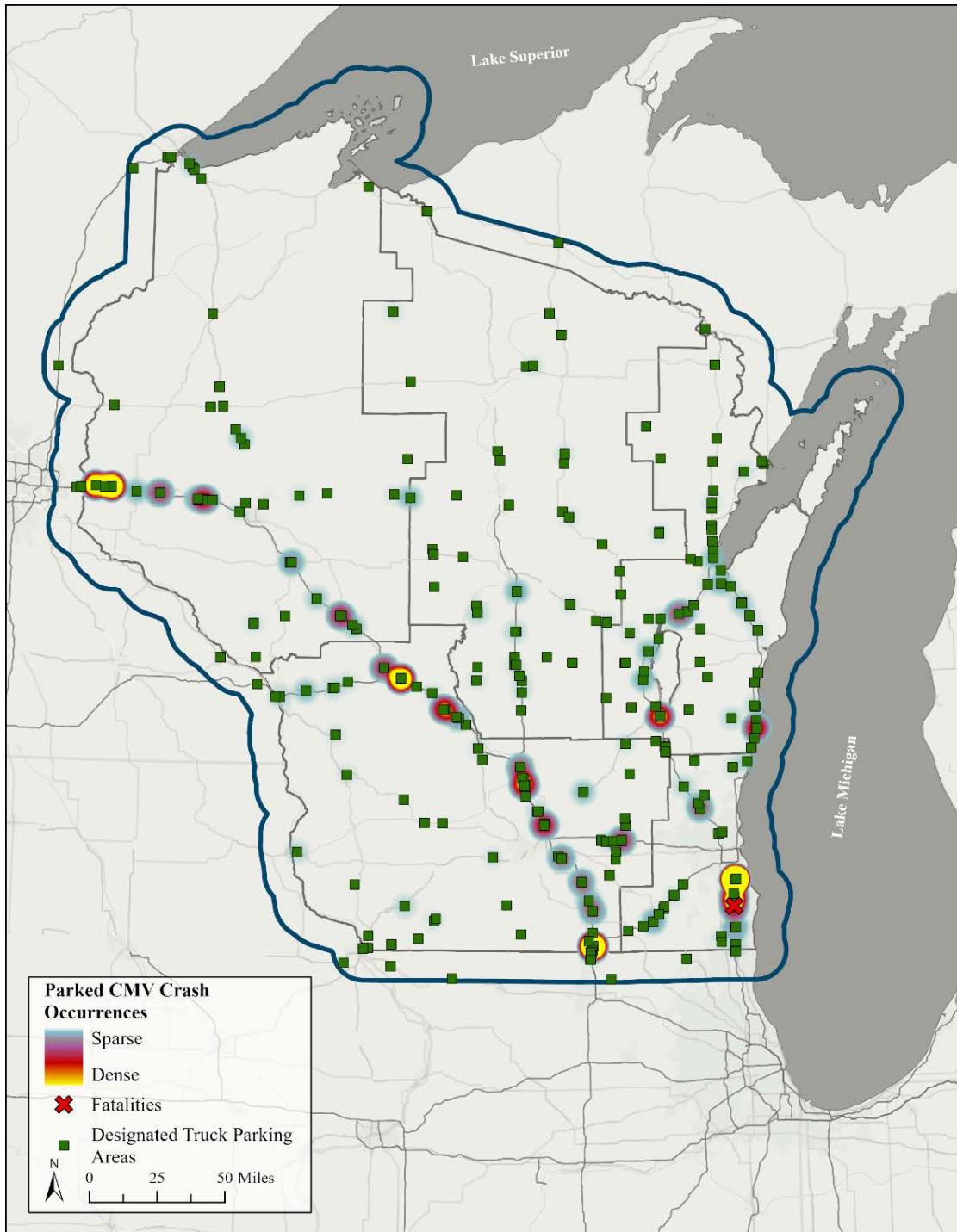
Table 8: Designated Parking Crashes

Year	Fatal	Injury	Property Damage	Grand Total
2017	0	2	110	112
2018	0	0	133	133
2019	0	1	177	178
2020	0	1	138	139
2021	0	0	151	151
2022	0	1	175	176
2023	1	1	162	164
2024	0	2	167	169
2025*	0	3	53	56
Percentage Breakdown	0.08%	0.86%	99.06%	100%
Grand Total	1	11	1,266	1,278

Through JuneSource: WisDOT (2025)*

In total, there were 1,278 crashes located within designated parking areas: one involved a fatality, 11 injury crashes, and 1,266 property damage only. Figure 35 indicates a clear pattern of crashes along the I-41/I-94 corridors. Along this corridor, there were 724 crashes within designated parking areas. This accounts for 31.95 percent of the total crashes within the Project Area.

Figure 35: Parked CMV Crashes at Designated Truck Parking Locations (2017–June 2025)



Source: WisDOT (2025)



5.2.3 Undesignated Parking Crash Analysis

Between 2017 and June of 2025, there were 988 crashes that occurred within undesignated parking areas. The severity of crashes is overwhelmingly property-damage-only, making up 85.93 percent of incidents that occurred within the undesignated parking area. Injury crashes make up 12.75 percent of undesignated crashes, while fatalities were involved in 1.32 percent of crashes in the undesignated parking polygon, displayed in Table 9 below.

Table 9: Undesignated Parking Crashes

Year	Fatal	Injury	Property Damage	Grand Total
2017	0	14	79	93
2018	2	22	108	132
2019	2	17	95	114
2020	2	6	96	104
2021	1	18	103	122
2022	2	20	117	139
2023	2	12	113	127
2024	1	15	93	109
2025*	1	2	45	48
Percentage Breakdown	1.32%	12.75%	85.93%	100%
Grand Total	13	126	849	988

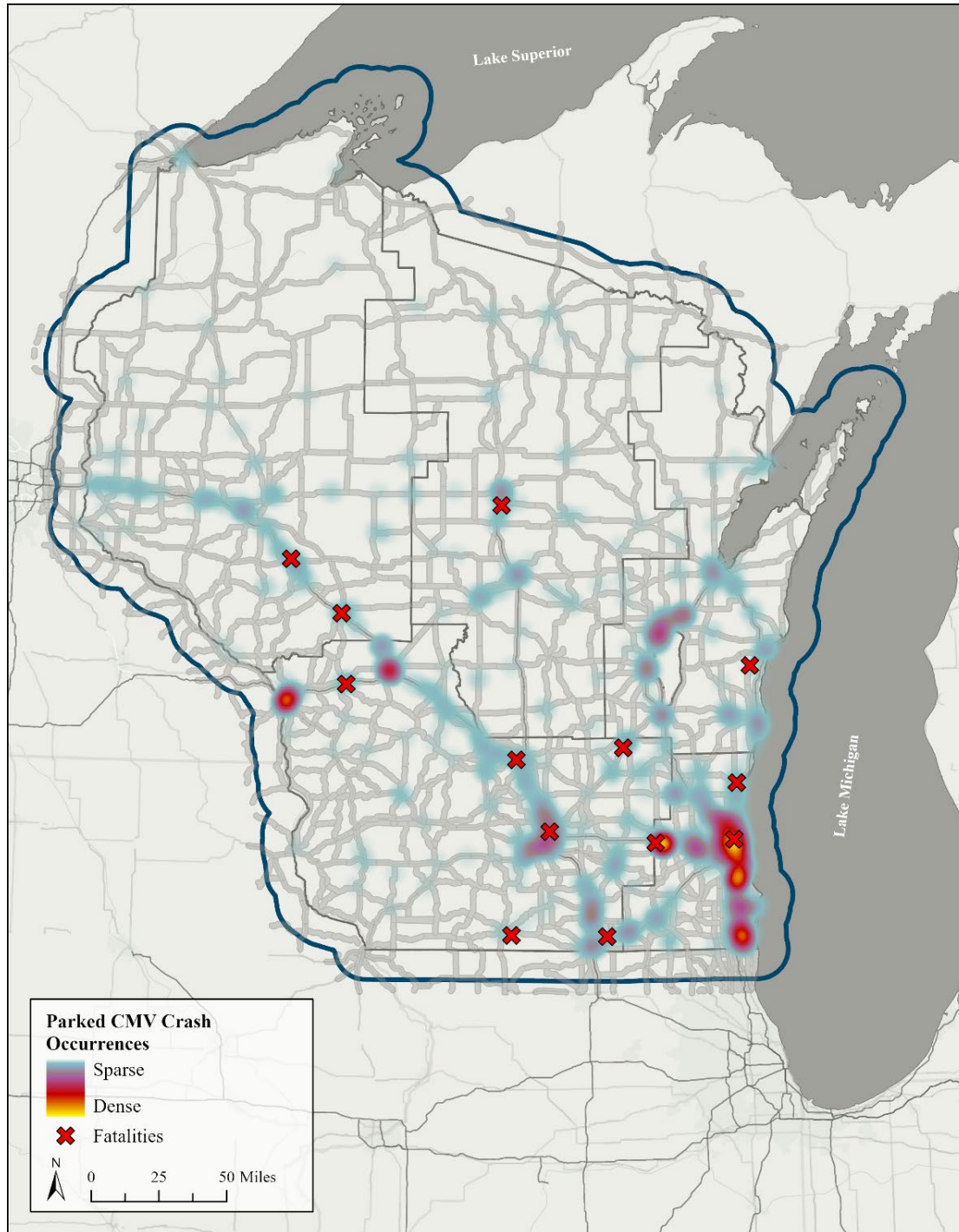
*Through June

Source: WisDOT (2025)

The majority of crashes appear around urban areas, which can be attributed to higher traffic volumes. However, a trend emerges along the I-94 corridor, indicating a greater frequency of crashes that is not seen along other significant corridors throughout the state. Figure 36 below displays the undesignated parking polygon with the locations of crashes. Between 2017 and 2025, there were 13 fatal crashes, 126 injury crashes, and 894 property-damage-only crashes that occurred within the undesignated parking area.

Although there is a higher frequency of crashes that occur within designated parking areas, the severity is elevated within undesignated parking facilities. Undesignated parking facilities experienced 92.8 percent (13) of the 14 crashes resulting in fatalities, and 92.8 percent of the 137 crashes resulting in injuries.

Figure 36: Parked CMV Crashes in Undesignated Truck Parking Area (2017 – June 2025)



Source: WisDOT (2025)



5.2.4 Crash Patterns

When comparing the locations of all crashes identified within the Project Area, there is a higher concentration of crashes along the I-94 corridor (Madison to Hudson). Out of the 2,266 total crashes identified within the Project Area, 934 occurred between Madison to Hudson: accounting for 41.22 percent of the total crashes. Of the crashes occurring along the I-94 corridor between 2017 and June of 2025, 0.43 percent were fatal, 3.75 percent resulted in an injury, and 95.82 percent were property-damage-only. Table 10 below displays the crashes occurring along the I-94 corridor in comparison to the total number of crashes within the Project Area.

Table 10: Crashes: I-94 (Madison to Hudson) vs Project Area

	Fatal	Injury	PDO	Total
I-94 crashes (Madison to Hudson)	4	35	895	934
Total Crashes in Project Area	14	137	2,115	2,266
Percentage of Total Crashes	28.57%	25.55%	42.32%	41.22%

Source: WisDOT (2025)

5.2.5 Spatial Crash Patterns

Spatial analysis of crash events provides important insights into the roadway environments where CMV-related crashes occur near each designated parking facility. By examining roadway classifications and the parking status of vehicles involved in each crash, this portion of the analysis identifies the settings that contribute most to crash exposure and highlights operational and geometric factors that may influence safety in the vicinity of parking facilities.

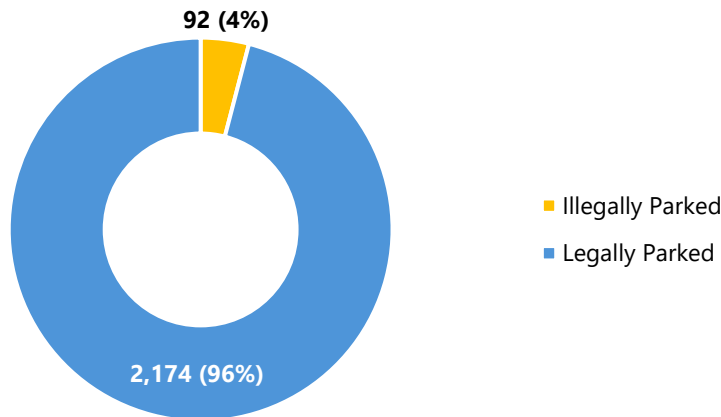
5.2.6 Parking Status and Crash Exposure

Parking behavior plays a significant role in understanding CMV crash patterns around truck parking facilities. Of all the unique crash events included in the study, 95.94 percent involved legally parked trucks, while only 4.06 percent involved illegally parked CMVs, displayed in Figure 37. The predominance of crashes involving legally parked CMVs indicates that many recorded incidents occurred in locations where trucks were permitted to stop, such as designated parking areas or lawful pull-off zones, while relatively fewer incidents occurred in areas where parking is prohibited.^{10 11}

¹⁰ This result may be influenced by a larger proportion of trucks park in designated or legal areas, increasing the likelihood that crashes involving parked trucks occur in these locations compared to areas where parking is not permitted.

¹¹ CMVs parked at a truck stop or rest area are more likely to park within close proximity to one another presenting multiple opportunities for crashes that result in property damage only.

Figure 37: CMV Crashes by Parking Status



Source: WisDOT (2025)

In total, 92 crashes involved illegally parked CMVs, of which 4.3 percent (4) were fatal crashes, 15.2 percent (14) resulted in injuries, and 80.4 percent (74) involved property damage only. In comparison, 2,174 crashes occurred in undesignated areas involving legally parked CMVs, including 0.5 percent (10) fatal crashes, 5.6 percent (123) injury crashes, and 93.8 percent (2,041) property damage only crashes. While the overall number of crashes is substantially higher in locations where CMVs are legally parked, crash severity is greater where vehicles are parked illegally, indicating a disproportionate safety risk associated with unauthorized parking locations, as indicated in Table 11 below.

Table 11: CMV Crashes by Parking Status

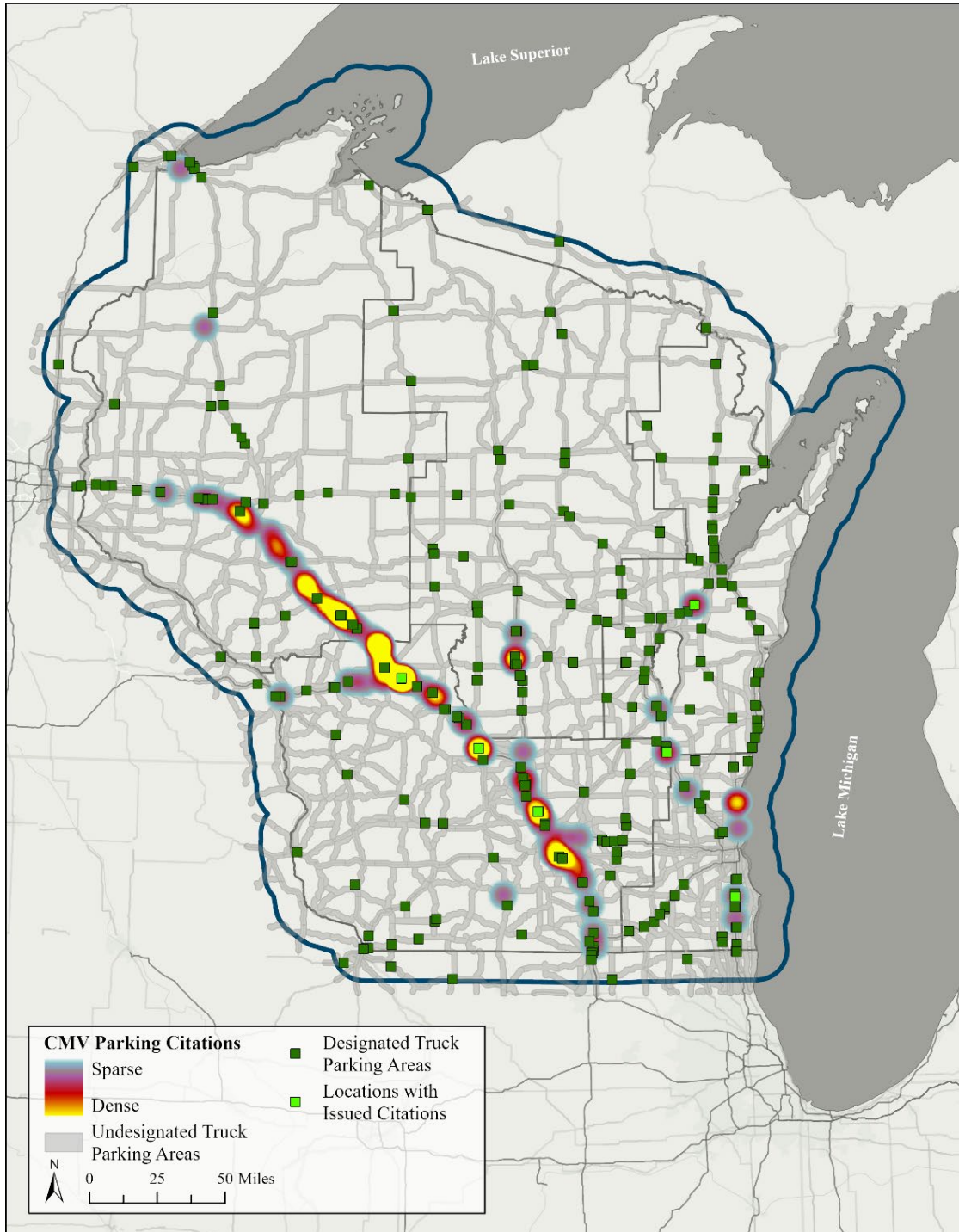
	Fatal	Injury	PDO	Total
Illegally Parked CMV	4	14	74	92
Illegally Parked Percentage	4.3%	15.2%	80.4%	100.0%
Legally Parked CMV	10	123	2,041	2,174
Legally Parked Percentage	0.5%	5.6%	93.8%	100.0%

5.3 Citation Analysis

Between 2015 and 2025, a total of 184 citations were identified within designated and undesignated parking areas. All citations were for the same violation: Wis. Stat. § 346.53(6), parking/standing where prohibited.¹²

¹² A Truck may technically be parked in the incorrect location, such as the curblane or along an entrance or exit ramp, yet it will still be counted as "designated" under this methodology due to the geofence boundaries.

Figure 38: Heatmap of CMV Parking Citations (2015 - 2025)



Source: WisDOT (2025)



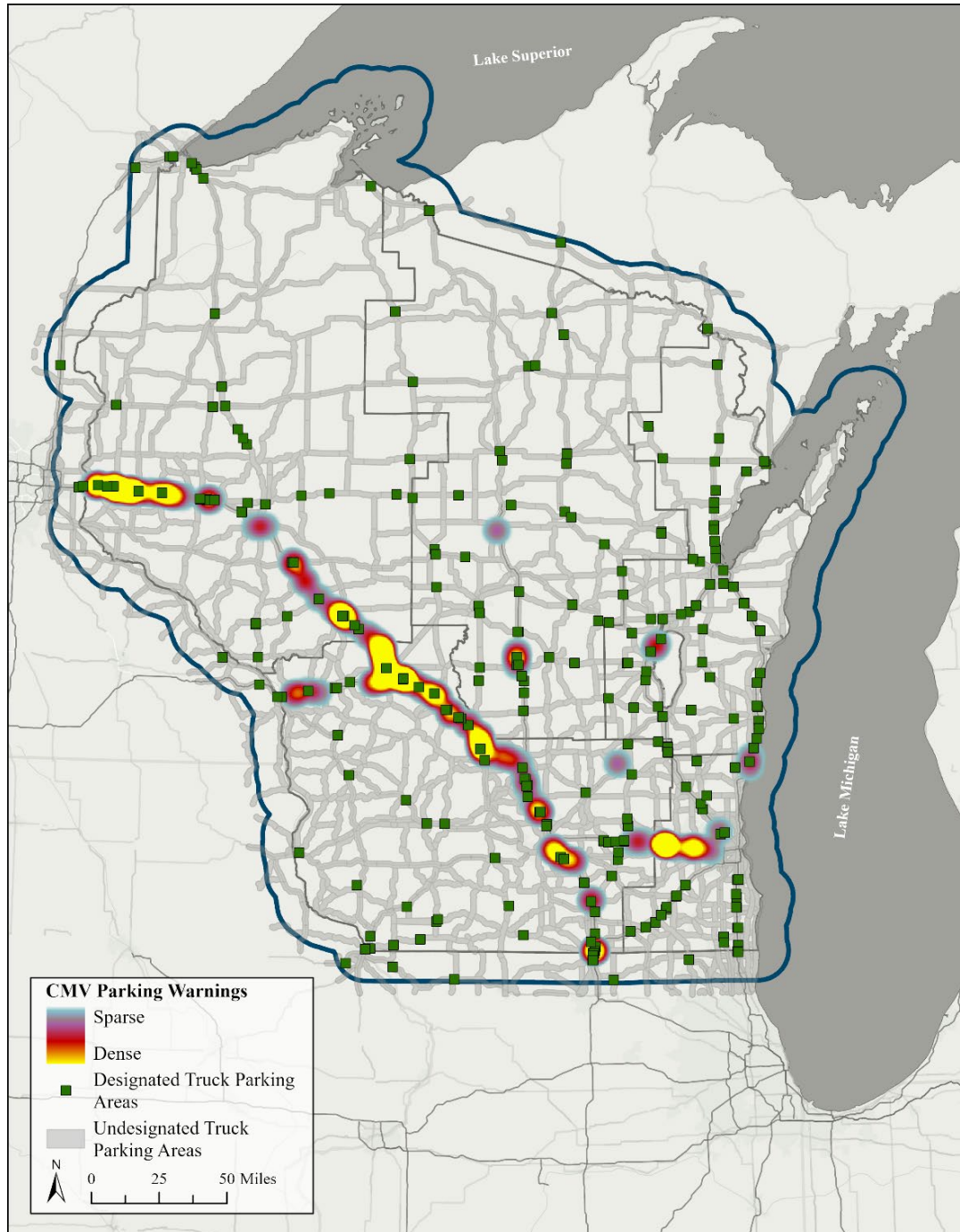
As observed in Figure 38 above, the majority of citations issued follow the same pattern as the crashes identified in the previous section. Of the 130 citations issued, 102 citations, or 82.25 percent occurred along the I-94 corridor, particularly between Madison and Eau Claire. In total, there were 12 citations issued across 7 unique designated truck parking facilities.

5.4 Warnings Analysis

The analysis identified 184 warnings occurring within designated and undesignated parking areas. Of the 184 warnings, eight were identified within designated parking areas. Figure 39 below visualizes hotspot locations of where warnings were issued. All warnings were for the same violation: Wis. Stat. § 346.53(6), parking/standing where prohibited.

Initial observations indicate that warnings are not evenly distributed across the network; instead, they are heavily concentrated at a select group of facilities, primarily along the I-90/I-94 corridor. Conversely, many facilities show little to no warning activity, highlighting variation in parking demand, enforcement presence, or corridor-specific freight patterns.

Figure 39: Heatmap of Issued CMV Parking Warnings (2015 - 2025)



Source: WisDOT (2025)



5.4.1 Warning Behavior Analysis

The warning behavior analysis confirms that all 184 warnings issued within all designated and undesignated parking facilities are associated with a single violation type: “PARKING/STANDING WHERE PROHIBITED” (Wis. Stat. § 346.53(6)). This may indicate that enforcement activity around these facilities is highly focused on addressing noncompliant stopping and parking behavior rather than a broader range of traffic or vehicle offenses. In total, there were 184 warnings, of which 142 warnings (77.17 percent) occurred along the I-90/I-94 corridor. This observation may reflect a system-wide pattern in which trucks resort to shoulders, ramps, and other restricted areas when formal parking capacity or access conditions make it difficult to use designated stalls.

5.5 Inspections Analysis

There were 925 inspection violations identified within designated and undesignated parking areas. There were 429 inspection violations issued at undesignated parking facilities, and there were 496 violations identified within designated parking areas. Within these inspections, there were 17 different code violations identified and grouped together based on violation description, listed below in Table 12. This resulted in the following three groups, as shown in Table 12, with definitions for each violation code found in Table 13.

Table 12: Violation Code Grouping

Inspection Violation Group	Inspection Violation Codes
Failure to produce RODS for previous 7 days (Violations that call out failure of producing or presenting a false Record of Duty Status (RODS) for the previous 7 days)	395.8K2-HOSP 395.8K2-HOSRC
False or no record of Duty Status (Violations related to presenting a false or no record of Duty Status)	395.8A1-HOSP 395.8E1PC-OOS 395.8E-HOSPCDOOS 395.8E-HOSPD 395.8E-HOSPDOOS
Fatigue-related violation (Violations that are fatigue and time-ratio related)	395.3A1-HOSPD 395.3A2-HOSPD 395.3A2-HOSPDIT 395.3A3-HOSPRNC 395.3A3I-HOSPDIT 395.3B1-HOSPD 395.3B2-HOSPD 395.3B2-HOSPDIT

Source: Wis. Stat. § 346.53(6) (2024)



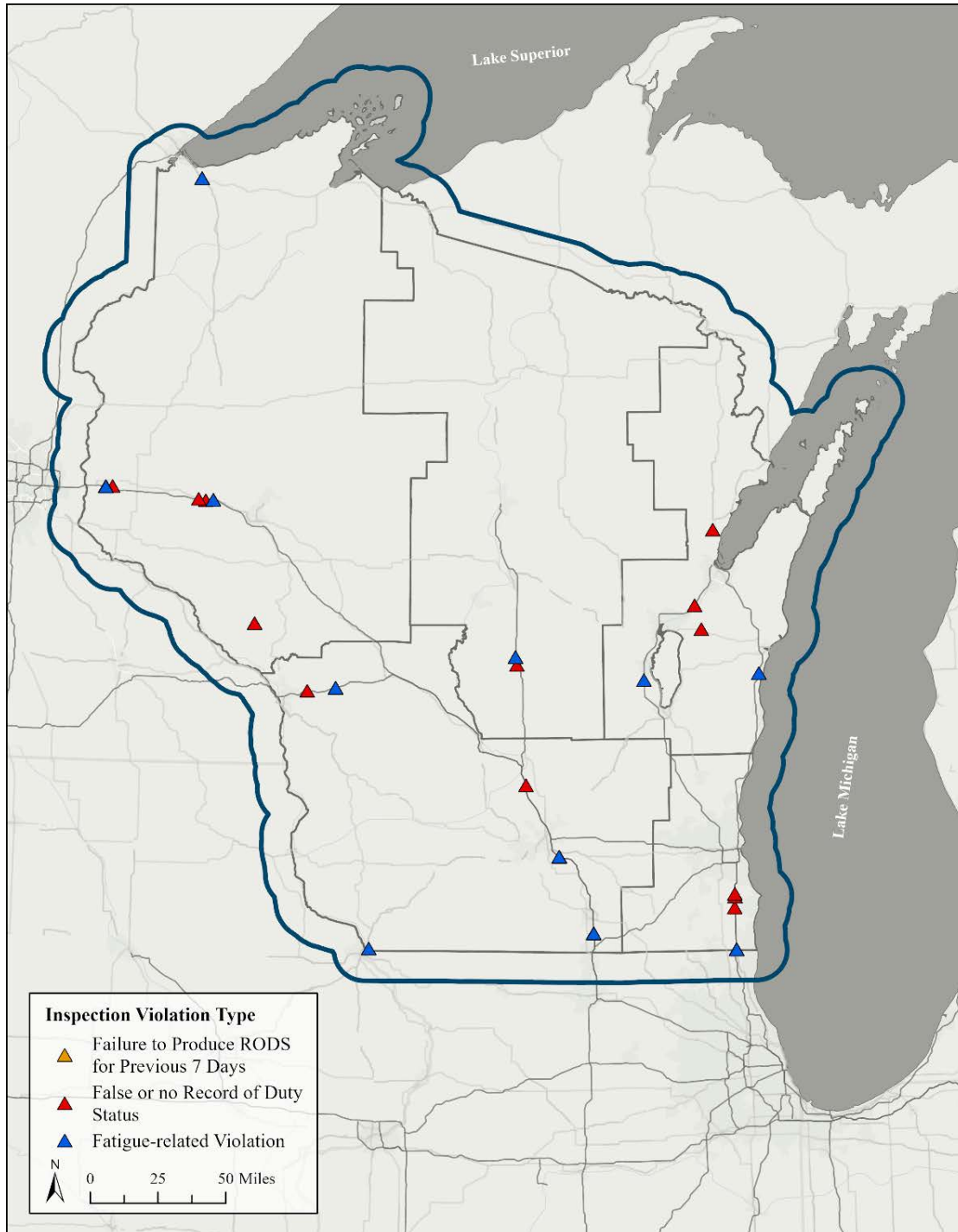
Table 13: Violation Breakdown

Inspection Violation Group	Frequency	Percentage of Total Inspection Violations
Failure to produce RODS for previous 7 days	28	3.03%
False or no record of Duty Status	764	82.77%
Fatigue-related violation	133	14.19%
Total Violations	925	100%

Source: WisDOT (2025)

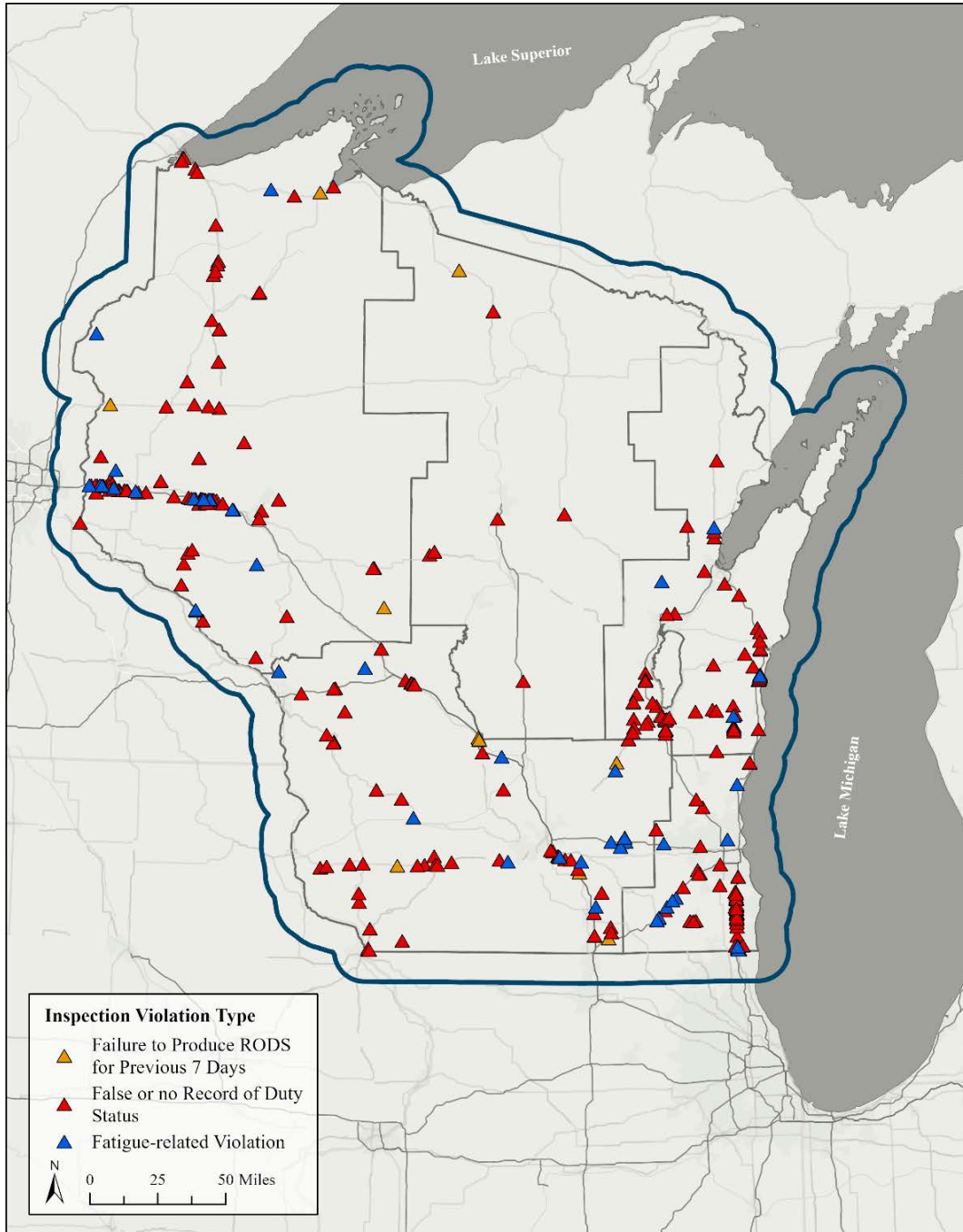
Unlike the warning and citation data, the inspection violations appear to not follow the same pattern. Instead, they appear to be relatively concentrated to the south of Milwaukee and to the east of Minneapolis-St. Paul metropolitan area as seen in Figure 40 and Figure 41. This differs from the patterns observed in violations and citations, which can be attributed to enforcement presence.

Figure 40: Designated Parking Area Inspection Violations by Type (2024 – 2025)



Source: WisDOT (2025)

Figure 41: Undesignated Parking Area Inspection Violations by Type (2024 – 2025)



Source: WisDOT (2025)



5.5.1 Inspection Type Analysis

The inspection records within the designated and undesignated parking areas are dominated by HOS-related violations (defined in Table 13), reflecting a strong focus on compliance risk. The most frequent violation codes are 395.8A1-HOSP (377 violations), 395.8E-HOSPD (181), and 395.8E-HOSPDOOS (120), with several additional HOS variants appearing at lower frequencies. Table 14 below defines the violation codes and their descriptions.

Table 14: Violation Definitions and Counts

Parent Code Violation	Sub-Violation Code	Violation Description	Freq.
395.8K-HOSP	395.8K2-HOSP	HOS (Property) - Failing to have in possession RODS for the previous seven consecutive days and available for inspection while on duty	28
395.8K2-HOSRC	395.8K2-HOSRC	HOS (Property) – Driver fails to maintain or provide complete Record of Duty Status (RODS) documentation for inspection, including incomplete or reconstructed logs used for hours-of-service compliance.	12
395.8-HOS	395.8A1-HOSP	HOS (Property) - Failing to have a record of duty status using the method prescribed	377
	395.8E1PC-OOS	HOS - False record of duty status that concealed an HOS limitation violation after the last rest period. Driver improperly used Personal Conveyance	12
	395.8E1PC-OOS	HOS - False record of duty status driver improperly used Personal Conveyance	21
	395.8E-HOSPCDOOS	HOS (Property) - Co-driver produces a false record of duty status with an apparent attempt to conceal hours. Explain	16
	395.8E-HOSPD	HOS (Property) - No driver may make a false report in connection with a duty status. Explain	181
	395.8E-HOSPDOOS	HOS (Property) - Driver produces a false record of duty status with an apparent attempt to conceal hours. Explain	71
	395.8E-HOSPDOOS	HOS (Property) - Driver produces a false record of duty status that concealed an HOS limitation violation after the last rest period. Explain	49



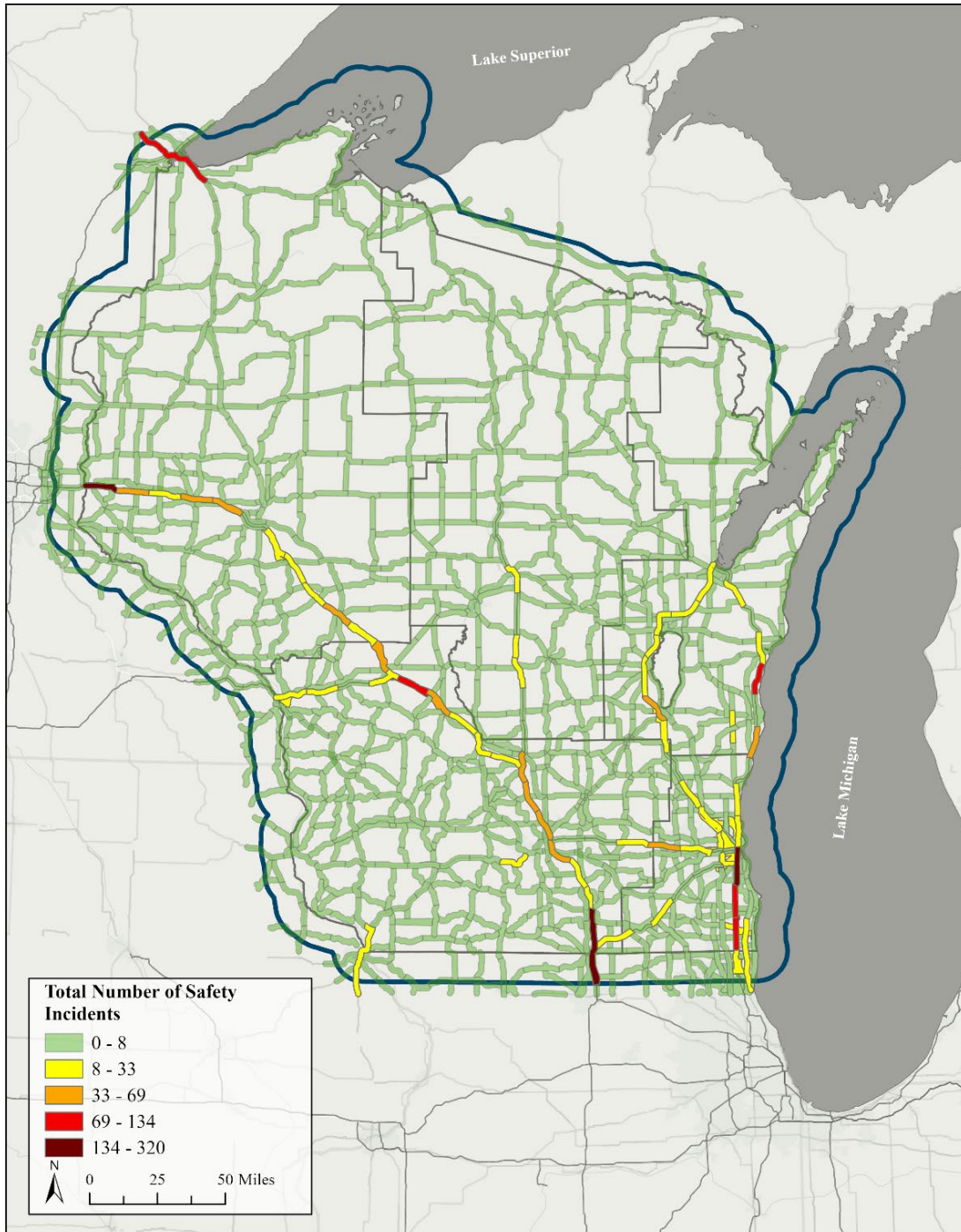
395.3-HOS	395.3A1-HOSPD	HOS (Property) - Driving more than 11 hours following 10 consecutive hours off duty during the current 8 consecutive day period. Date and Time	19
	395.3A2-HOSPD	HOS (Property) - Driving beyond the 14 hour after coming on duty following 10 consecutive hours off duty during the current 8 consecutive day period. Date and Time	29
	395.3A2-HOSPDIT	HOS (Property) - Driver driving beyond the 14 hour after coming on duty following 10 consecutive hours off duty at the time of inspection. Time	50
	395.3A3-HOSPRNC	Driving beyond 11 hour driving limit in a 14-hour period at time of inspection. (Property carrying vehicle) - Nominal Violation	2
	395.3A3I-HOSPDIT	HOS (Property) - Driving more than 11 hours following 10 consecutive hours off duty at the time of inspection. Time	32
	395.3B1-HOSPD	HOS (Property) - Driving after being on duty more than 60 hours in the previous 7 consecutive days. Date TIME	1
	395.3B2-HOSPD	HOS (Property) - Driving after being on duty more than 70 hours in the previous 8 consecutive days. Date and Time	14
	395.3B2-HOSPDIT	HOS (Property) - Driving after being on duty more than 70 hours in the previous 8 consecutive days at the time of inspection. Time	11

Source: WisDOT (2025), Wis. Stat. § 346.53(6) (2024)

5.6 Overall Network

The majority of all safety incidents (crashes, citations, warnings, and inspection violations) occur along the I-90/I-94 corridor between Tomah and Madison, with greatest densities at state boundaries and within urban areas. There are also large concentrations of violations between Minneapolis-St. Paul metropolitan area and Eau Claire, WI, particularly for failure to produce RODS and fatigue-related violations. In both cases, this is likely due to higher enforcement rates and increased traffic. Outside of the I-90/I-94 corridor, there are a large number of crashes on I-94 from the Marquette Interchange to the Illinois border and along U.S. Highway 53 through Superior into Duluth, as shown in Figure 42.

Figure 42: Total Count of Safety Incident Occurrences by Segment



Source: WisDOT (2025)



6 Recommendations

This section outlines the recommendations for addressing truck parking needs in Wisconsin. The recommendations focus on alternatives for current deficiencies and 2035 forecasted demand, corridor prioritization, and funding and implementation strategies.

6.1 Overview of Truck Parking Deficiencies and Future Needs

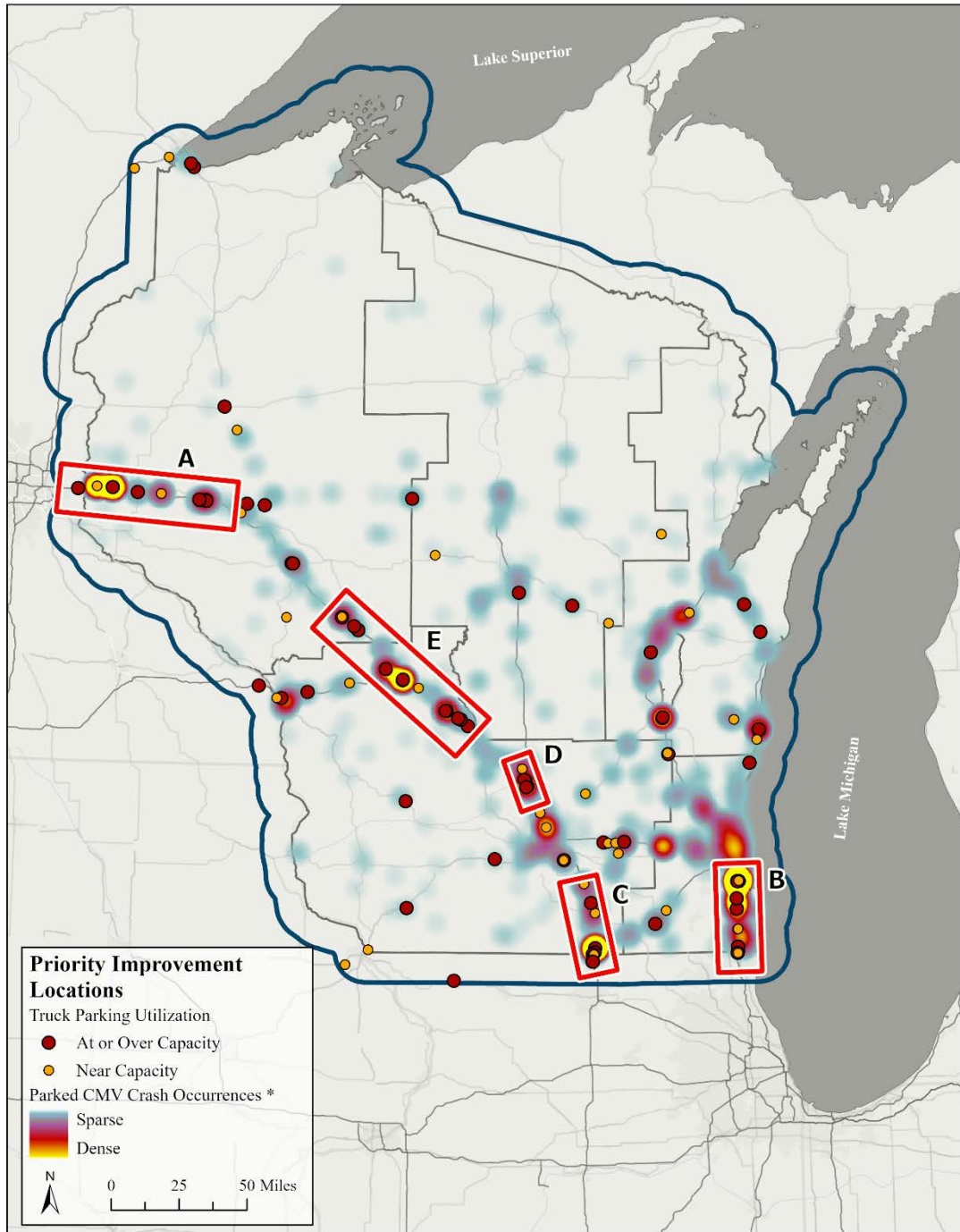
The statewide evaluation indicates that truck parking needs in Wisconsin are concentrated along high-volume interstate corridors where peak overnight demand approaches or exceeds available capacity. While regional summaries may suggest that total parking supply is generally sufficient at a statewide or broad corridor scale, this masks a more important spatial imbalance: there is not necessarily a deficit in total spaces across a region, but rather a mismatch between where capacity is located and where demand is concentrated. As a result, individual segments and specific facilities experience demand that exceeds available capacity, even when the broader region does not appear deficient in aggregate terms. Key deficiencies were identified along:

- I-90/I-94 corridor between Tomah and the Portage area
- I-39/I-90 corridor between Madison and Beloit
- I-94 corridor between Madison and the Portage area
- I-94 corridor between Eau Claire and Minneapolis-St. Paul metropolitan area
- I-41 corridor between Milwaukee and Chicago

Figure 43 below displays crash hotspots identified and designated parking facilities identified at or over capacity in current year, with segments of interest identified. When viewing Figure 43, the pattern along I-90/I-94 becomes evident. Along the corridor, multiple facilities have been identified at or over capacity, with accidents involving parked CMVs nearby.

- Kenosha Safety Rest Area (Facility #26)
- Portage Safety Rest Area (Facility #11)
- Poynette Safety Rest Area (Facility #12)
- Black River Falls Safety Rest Area (Facility #54)
- Millston Safety Rest Area (Facility #53)

Figure 43: Priority Improvement Locations



Source: WisDOT (2025)

*Parked CMV crash occurrences are weighted by severity



6.2 Corridor Prioritization Approach

Given the statewide scale of truck parking needs as shown in Figure 30 and Figure 31 (forecasted demand at public and private designated parking facilities in 2035), a prioritized, corridor-based approach to implementation is recommended.

Prioritization should be based on a combination of factors identified through this study, including:

- Current truck parking demand and utilization levels
- Forecasted demand growth through 2035
- Concentrations of undesignated truck parking
- Safety indicators, including truck-involved crashes, citations, and warnings
- Proximity to major freight generators and urban areas

Based on these criteria, the highest priority corridors include:

- I-90/I-94 corridor between Tomah and the Portage area (Labeled E on Figure 43)
- I-39/I-90 corridor between Madison and Beloit (Labeled C on Figure 43)
- I-94 corridor between Madison and the Portage area (Labeled D on Figure 43)
- I-94 corridor between Eau Claire and Minneapolis-St. Paul metropolitan area (Labeled A on Figure 43)
- I-41 corridor between Milwaukee and Chicago (Labeled B on Figure 43)

These corridors exhibit consistently high demand, safety concerns, and projected growth, and should be prioritized for near-term investment.

6.3 Recommended Strategies

Addressing truck parking needs in Wisconsin will require a coordinated set of strategies that expand capacity, improve system performance, and address policy and operational constraints. The strategies presented below integrate the range of alternatives evaluated in this study, including physical expansion, new facility development, technology and operations, private-sector coordination, and policy alignment. These approaches are not mutually exclusive and are expected to be most effective when implemented in combination, particularly along high-demand freight corridors.

6.3.1 Recommendation #1: Targeted Infrastructure Investments

Consistent with the corridor-based prioritization approach described above, infrastructure investments should be targeted to the highest-priority corridors identified through this study, focusing on areas with the greatest demand, safety needs, and projected growth. Expanding physical truck parking capacity remains the most direct approach to addressing identified shortages, particularly along high-demand interstate corridors. The analysis indicates that several existing public facilities, especially along the I 90/I 94 corridor, are operating near or above



capacity during peak overnight periods. To prioritize, a weighted, points-based scoring framework similar to that used by other states can be implemented.¹³ Texas weighs capacity, safety, and freight criteria using truck GPS data and crash severity; California applies a point-allocation system across demand, crash, and stakeholder factors; and Missouri combines a demand factor with a safety “collision” factor to rank locations into priority tiers. Public locations currently at or over capacity during peak times along the I-90/I-94 corridor include:

- Safety Rest Area 22 Beloit (in Figure 43 Segment C)
- Safety Rest Area 17 Janesville (in Figure 43 Segment C)
- Safety Rest Area 12 Poynette (in Figure 43 Segment D)
- Safety Rest Area 11 Portage (in Figure 43 Segment D)
- Safety Rest Area 10 Mauston (in Figure 43 Segment E)
- Safety Rest Area 9 Lyndon Station (in Figure 43 Segment E)
- Safety Rest Area 31 La Crosse (not in Figure 43 segment)
- Safety Rest Area 53 Millston (in Figure 43 Segment E)
- Safety Rest Area 54 Black River Falls (in Figure 43 Segment E)
- Public SRAs that also experience higher rate of truck related issues:
 - ▶ Safety Rest Area 61 Menomonie EB (in Figure 43 Segment A)
 - ▶ Safety Rest Area 62 Menomonie WB (in Figure 43 Segment A)

In these locations, expansion of existing rest areas represents a cost-effective approach as it leverages existing infrastructure, access, and utilities, which minimizes right-of-way acquisition, environmental and community impacts, and overall project costs relative to new facility construction. Because these sites are already located along established freight corridors and are familiar to drivers, they also tend to support consistent utilization.

While expansion offers advantages, expansion projects can require phased construction or temporary closures that may reduce short-term capacity, so careful staging is needed to maintain operations. Despite these challenges, national guidance and state DOT practices generally indicate that expanding existing facilities can provide a more efficient long-term solution than new site development, particularly along corridors where facilities are consistently near or over capacity.

In areas where expansion is not sufficient or feasible, development of new truck parking facilities should be considered to address spacing gaps between facilities and improve access when HOS limits are reached. New truck parking facilities could be developed on corridor segments where existing facilities are insufficient, where spacing between facilities exceeds practical operating distances for drivers (while FHWA does not prescribe a

¹³ Texas, California, and Missouri framework <https://azdot.gov/sites/default/files/2025-08/AppendixC-Statewide-Truck-Parking-Plan.pdf>



specific distance, 50 to 100 miles is consistent driver behavior under HOS constraints), or where physical, environmental, or community constraints limit expansion of existing sites.¹⁴ These facilities may be developed by WisDOT, private operators, or through private-public partnerships, depending on location, demand, and funding availability. While constructing new sites can address localized shortages, reduce reliance on undesignated parking, and improve system reliability, it can be more complex and costly than expanding existing facilities due to land acquisition, permitting, and longer development timelines. Additionally, new site construction would require increased staffing and higher operations and maintenance costs, exceeding the incremental costs associated with expanding existing sites.

Improvements to facility access, circulation, and design should also be incorporated into expansion and new construction projects. Continued planned enhancements to ingress and egress, improving internal layout, and ensuring adequate separation between truck and passenger vehicle movements can improve both operational efficiency and safety outcomes.

6.3.2 Recommendation #2: Technology and Operations Enhancements

Operational improvements and technology deployment provide a lower-cost approach to addressing truck parking shortages when compared to physical expansion of existing facilities or construction of new sites. The findings of this study indicate that demand varies by time of day and location, suggesting that improved information and system management can significantly enhance overall system performance without requiring large-scale capital investment.

As of 2024, Wisconsin's TPIMS monitored 483 stalls at 11 SRA locations along 250 miles from Dunn County to Rock County on I-39, I-90 and I-94. Expansion of the TPIMS should be prioritized in high-demand corridors with at-or-above capacity facilities, such as I-94 between Minneapolis-St. Paul metropolitan area and Eau Claire, with high-undesignated parking to mitigate drivers searching for parking by providing real-time parking availability information. Providing real-time parking availability information earlier along corridors can reduce unnecessary searching, improve compliance with hours-of-service requirements, and discourage unsafe parking behavior.

In corridors where TPIMS is already present, complementary operational improvements can further improve utilization. Possible improvements include enhanced dynamic signage, improved wayfinding, re-striping and space optimization, and the designation of staging or overflow areas where appropriate. Integration with private mobile applications such as Trucker Path Mobile App and AllStays, can further support drivers in locating available parking and reduce unsafe or last-minute parking behavior.¹⁵

¹⁴ There is no current FHWA precedence for spacing between facilities. 50 to 100 miles is 1-2 hours of driving distance which approximates when a driver is looking for a parking space before hitting HOS constraints.

¹⁵ Overflow Areas are informal, non-designated spaces that may be used for truck parking when the primary lot reaches capacity. These areas are typically underdeveloped (e.g., gravel or adjacent open spaces) and are not intended to function as standard parking facilities.



6.3.3 Recommendation #3: Strengthening Coordination with Private Sector

As illustrated in Table 2, private truck stops and travel centers represent the majority of truck parking capacity in Wisconsin (85.5 percent) and the Project Area (86.2 percent) and play a critical role in meeting statewide demand. As such, coordination with private sector operators is essential to effectively address system-wide parking needs and improve overall performance. Private truck stop operators may be positioned to expand existing private facilities in high-demand areas. Coordination between public agencies and the private sector could help inform where expansion may be most effective and reduce the need for new public or private facilities.

Opportunities for coordination include integrating private truck stops and travel plazas into TPIMS, improving access to existing sites, and aligning public and private investments in high-demand areas. Similar public-private integration efforts have been implemented in several Midwestern states (including Iowa, Kentucky, Michigan, and Texas) through the MAASTO regional TPIMS program, providing drivers with real-time parking availability information at both public and private facilities. As noted in the [FHWA Truck Parking Development Handbook](#), investments in transportation infrastructure such as roadway connections, interchange improvements, and adequate ingress/egress design allow trucks to reach sites safely and efficiently. Coordination of these improvements with local development will require ongoing public outreach, collaboration with local jurisdictions, and continued relationship-building with private facility owners and developers.

6.3.4 Recommendation #4: Address Policy and Land Use Barriers

Truck parking challenges are driven not only by land use policies and zoning regulations, but also by practical development constraints, including limited availability of suitable land near high-demand corridors, site configuration limitations, access constraints, and competition from higher-value land uses. These factors can limit the development or expansion of truck parking facilities and contribute to increased undesignated parking.

Coordination with local governments is necessary to identify unintended consequences and address policy barriers, including zoning restrictions and permitting requirements. Opportunities may also exist to designate staging areas in appropriate locations to accommodate short-duration parking needs associated with pickup and delivery activity. Local governments can include the designated staging areas within parcels proposed for development. Staging areas should be prioritized in corridors with high undesignated parking at 9am including I-39/I-90 corridor between the Portage area and Beloit, I-94 corridor between Eau Claire and Minneapolis-St. Paul metropolitan area, and I-41 corridor between Milwaukee and Chicago as shown in Figure 33. In addition to coordinating with local governments, WisDOT should find opportunities to discuss aligning overnight parking policies and regulations with neighboring states. This may include sharing insights on freight patterns to reduce truck parking demand imbalances near state lines. Addressing these policy and land use considerations can improve the overall availability and distribution of truck parking across the state.



6.3.5 Recommendation #5: Continued Safety Enhancements

Truck parking improvements should be closely integrated with safety objectives, particularly in corridors where high demand and undesignated parking activity contribute to increased crash risk as identified in the Corridor Prioritization Approach section. The analysis indicates that many safety issues are concentrated along major freight corridors where drivers lack access to adequate designated parking. This can reduce opportunities for unsafe or undesignated parking along highway shoulders and ramps.

Improving safety conditions should include increasing the availability of designated parking, enhancing facility access and geometry, and improving lighting and signage near parking areas and ramps. By addressing truck parking as both an operational and safety issue, these strategies can reduce unsafe parking behavior and improve conditions for both truck drivers and the traveling public.

6.4 Integration with Existing and Programmed Projects

Implementation of these strategies should be coordinated with currently programmed WisDOT projects and planned corridor improvements. Aligning truck parking investments with ongoing projects will improve cost efficiency, reduce duplication of effort, and support integration with broader transportation system enhancements. Recent projects include upgrades at SRA 51 Maribel (I-43 Southbound) and SRA 52 (I-43 Northbound). Planned projects are identified in the [2025-2028 Statewide Transportation Improvement Program](#) (STIP) including improvements to SRAs 16 (I-90 Westbound, Sparta), 63 (I-41 Southbound, Lomira), and 64 (I-41 Northbound, Theresa) in 2027 and SRAs 35 (I-43 Northbound, Elkhorn) and 36 (I-43 Southbound, East Troy) in 2028 and 26 (I-94 Exit 347, Kenosha) in 2030. Additional coordination with the STIP is recommended to ensure strategies reflect current project programming.

6.5 Implementation and Funding Considerations

Implementation of the recommended truck parking strategies will require a coordinated approach that aligns needs with available funding sources and ongoing transportation investments. Given the concentration of demand and safety concerns along key interstate corridors, projects should be prioritized based on corridor-level deficiencies, forecasted demand through 2035, and observed safety risks. Coordinating these improvements with currently programmed WisDOT projects will improve cost efficiency and support integration with broader corridor and freight system investments.

Truck parking projects are eligible under several core Federal-aid highway programs authorized under Title 23, which provide flexible funding that can be used for the construction, expansion, and modernization of truck parking facilities. Because truck parking supports compliance with HOS requirements and reduces unsafe roadside parking, it is commonly treated as an eligible safety and freight investment and can be incorporated into broader corridor improvement programs. In addition to these formula programs, discretionary grants and technology-focused programs provide opportunities to advance both large-scale and operational improvements.



Funding availability may evolve through future federal surface transportation reauthorization. While discretionary programs such as BUILD/RAISE, INFRA, and Mega are subject to periodic changes, more established formula-based programs, such as the Rural Surface Transportation Grant Program, have strong and consistent bipartisan support. Key federal funding programs that can support implementation include:

- **Federal-Aid Formula Programs (NHFP, STBG, NHPP, HSIP, CMAQ):** Provide flexible funding for expansion of rest areas, development of new facilities, and integration of truck parking into broader freight and safety projects.
- **Infrastructure for Rebuilding America (INFRA) and Mega Grant Programs:** Supports freight-focused highway and multimodal projects of regional or national significance. Truck parking projects are eligible when they improve freight mobility, safety, and reliability along designated freight corridors.
- **Better Utilizing Investments to Leverage Development (BUILD/RAISE):** Supports multimodal and community-focused transportation projects. Truck parking projects are competitive when they demonstrate safety, economic, and community benefits.
- **Rural Surface Transportation Grant Program:** Supports infrastructure investments in rural areas, including truck parking along interstate corridors serving long-distance freight movement.
- **Technology and Innovation Programs (ATTIMD, FMCSA HP-ITD):** Supports deployment of TPIMS, dynamic signage, and other intelligent transportation system solutions that improve utilization of existing capacity.

Because a substantial share of truck parking supply is privately owned, partnerships with private sector operators will be essential to successful implementation. Coordination with private truck stops can support expansion of available capacity, improve access, and enhance system-wide information sharing through integration with TPIMS. A phased approach that leverages multiple funding sources and targets the highest-priority corridors will allow WisDOT to effectively address truck parking shortages while maximizing the impact of available resources. One successful example is MAASTO's TIGER program funded multi-state TPIMS initiative, resulting in major improvements to broadcasting real-time parking availability along highways in eight states.

The federal surface transportation landscape may also evolve under the draft restoration bill, which continues to shape funding priorities for freight, safety, and interstate system reliability.

As of June 2026, final program structures and authorizations are still subject to refinement. The draft maintains a continued emphasis on formula-based funding stability for core highway programs, while reinforcing the role of discretionary grant programs in advancing large-scale, multi-jurisdictional freight and safety investments. The draft also places increased emphasis on system resilience, freight bottlenecks, and safety-critical infrastructure, which may further strengthen eligibility and competitiveness for truck parking projects under programs that support operational efficiency and crash reduction. In addition, the bill is expected to continue support for technology-enabled transportation investments, including intelligent transportation systems and freight information tools, which align closely with truck parking information and management systems. As the



legislation is finalized, it will provide additional clarity on long-term funding certainty and may expand opportunities to integrate truck parking into broader national freight and safety investment priorities.

This report identifies specific data on truck parking needs and improvements across Wisconsin's truck network. The recommendations are intended to support WisDOT in making strategic decisions to enhance safety, reliability, and system performance through 2035.

[End of Report]



Appendix A: ArcGIS Online Resources

The finalized truck parking facility inventory and relevant source data has been published to the ArcGIS Online (AGOL) group WisDOT Truck Parking Study that is hosted within HNTB's environment. Relevant users as determined by WisDOT have access to these services and can be located within their Group permissions on their Individual accounts.

The AGOL hosted feature services available for viewing include:

- WisDOT Truck Parking Facility Inventory – Contains the finalized truck parking facility layer and geofenced parking areas.
 - ▶ WisDOT Truck Parking Geofence_View – Contains geofence polygons for all designated truck parking locations within the Project Boundary.
 - ▶ WisDOT Truck Parking Facilities_View – A multi-layer feature view service containing the inventory of digitized public and private truck parking locations in the Project Boundary.
 - ▶ WisDOT_GravelLot_Boundary – Contains refined boundaries of gravel and unmarked concrete of designated truck parking that is included within the Truck Parking Facilities View.
- WisDOT SRA and SWEF Locations – Contains provided SWEF and SRA Locations from WisDOT.
- WisDOT Truck Parking Dynamic Message Signs (DMS) Board Locations – Contains provided DMS board Locations from WisDOT.
- WisDOT Truck Parking Project Boundary – Defines the project area that extends 15 miles into adjacent states.
- WisDOT Truck Parking Adjacent State Rest Areas and Facilities – This multi-item service contains the adjacent state data of rest areas and other related facilities.
- WisDOT Truck Parking Private and Commercial Spots – A compiled reference list of data pulled from various company and aggregator websites.
- WisDOT Truck Parking Designated Parking Safety Data – This multi-item service houses relevant safety data pertaining to the designated truck parking locations. This includes Division of State Patrol (DSP) Inspections, State Motor Vehicle (SMV) Parking Citations, Commercial Motor Vehicle (CMV) Parking Warnings, and Parked CMV Crash data with valid location information.
- WisDOT Truck Parking Undesignated Parking Safety Data – This multi-item service houses relevant safety data for areas outside of designated truck parking locations. This includes DSP Inspections, SMV Parking Citations, CMV Parking Warnings, Parked CMV Crash data with valid location information, and an undesignated areas polygon layer that contains a summary of safety infractions along each segmented area.



- WisDOT Truck Parking Location Data_fromCS – A multi-layer service that houses demand information for the designated and undesignated truck parking areas. This demand information includes truck parking stall counts, utilization, and capacity details.

A simple data viewer titled WisDOT Truck Parking Study, that houses all services listed above has been provided as an additional resource.



Appendix B: Stakeholder Outreach

B.1. Introduction

As a complement to the data-driven analysis by the consultant team, WisDOT developed a survey instrument to measure sentiments on truck parking within Wisconsin. Much like other states, WisDOT sought the observations and opinions of truck drivers. However, WisDOT attempted to go further in the survey methodology by also seeking perspectives from trucking companies (owners and dispatchers) and from the owners and operators of private truck stops.

A survey team was assembled to develop the survey content, manage the distribution of materials, assemble the results, and analyze the findings. This team reported directly to the overall Truck Parking Study's oversight team, who provided key input at multiple points in the process.

B.2. Survey Development

As noted above, three separate survey tracks were developed – a truck driver track, a trucking company track, and a truck stop owner / operator track. One of the primary initial tasks was a review of previous truck parking surveys, as conducted for other states or multi-state corridors. These included surveys from MAASTO states (conducted by ATRI), Tennessee, Kansas (also conducted by ATRI), Oregon, Mississippi, the New Jersey / Pennsylvania / New York / Connecticut Area, and the I-10 Corridor Coalition (between California and Texas). From these, where lines of questioning were consistently repeated, similar questions were added to the Draft Surveys. Many of those dealt with demographics, degree of experience, and type of driving (independent owner vs. dedicated driver; configuration of load; origin / destination of load). Similar questions were developed for trucking companies and truck stops, including peak days of parking space use and peak times of day for use for truck drivers.

One of the early challenges was balancing brevity and thoroughness – trying to maximize the amount of useful information collected while also minimizing the number of “dropped” surveys (surveys quit by the takers due to length of time / number of questions). Given a growing list of questions, the survey team agreed to split the field of questions for the truck drivers into two groups. One set would be built from (and expanded from) a primary group of “Minimum Viable Product” (MVP) questions, asked of all drivers. At the end of that group of questions, drivers would be able to opt into an “Extended” survey with additional questions tailored to better understand the decision-making process drivers use when seeking long-term / overnight parking.

As Draft Surveys were created, a list of key external stakeholders was identified, with the intent to request their knowledge and expertise to help improve survey questions. WisDOT appreciates the helpful feedback provided by the following organizations:

- Wisconsin Motor Carriers Association (WMCA)
- Owner-Operator Independent Drivers Association (OOIDA)



- American Transportation Research Institute / American Trucking Association (ATRI /ATA)
- American Association of State Highway and Transportation Officials (AASHTO)
- Specialized Carriers & Rigging Association (SC & RA)
- National Association of Truck Stop Owners / Operators (NATSO)

Edits were mostly minor in nature, and included revisions of the ordering of questions, options for the size of truck company, length of haul for most recent load, and incorporating safety concerns for female drivers. Survey 123 was selected for a survey platform due to ease of use and integration with WisDOT systems.

Next, this version of the Draft Survey was taken to the overall Study oversight team, which provided feedback prompting the development of questions to ask drivers about current needs at each of the 28 Safety Rest Areas (SRAs) and 13 Safety and Weight Enforcement Facilities (SWEFs) – focusing on the “where are you having problems finding parking?” part of truck parking needs. This necessitated moving several questions from the MVP section of the survey to the “Extended” section, which emphasized the “what factors determine where you park?” elements of how drivers make parking decisions. Further presentations were made to WisDOT senior leadership, and with minimal changes, the final versions of the surveys were approved for distribution.

B.3. Outreach Development

Several weeks prior to the release of the survey, WisDOT gave a presentation on the Truck Parking Study and survey at the WMCA Annual Conference. The presentation asked attendees to be aware the survey would be released soon, and to encourage all their drivers and colleagues to contribute their observations.

As the survey was activated, it was given a web presence at two WisDOT sites: The WisDOT Plans Page (<https://www.wisdotplans.gov/>) and the WisDOT Freight Resources page (<https://wisconsinindot.gov/Pages/doing-bus/freight/resources.aspx>). Both postings gave links to the survey, a basic explanation of who should take the survey, why the survey was important, and how the survey would be used. In addition, members of the WisDOT Freight Advisory Committee (FAC) were notified of the survey via e-mail and encouraged to directly participate or share the information with any relevant contacts.

The survey team also worked with WisDOT’s Office of Public Affairs (OPA) to develop visual and social media materials for publicity. This included the designs for posters to be placed at the SRAs and SWEFs, and for use in social media posts (on Facebook and LinkedIn) to encourage participation in the survey.

The survey team also identified three media groups with direct ties to trucking – terrestrial and satellite radio shows tailored to truck drivers, podcasts directed at truck drivers and the trucking industry and print journalists covering trucking and freight. A total of 19 different contacts across those three groups were identified. These contacts were e-mailed information prepared by the survey team and OPA, with the request to share it with their audiences. From this, at least one print media outlet contacted WisDOT, leading to a published article on the survey and study.

B.4. Deployment

The survey was open from December 4, 2025, through January 19, 2026. Physical posters were distributed and displayed at SRAs and SWEFs around Wisconsin. Two designs were used; each featured parked trucks and included both a QR Code and an e-mail address for the survey link.

The WisDOT Office of Public Affairs issued social media posts on Facebook, LinkedIn, and X (formerly Twitter) at different points in December and January; engagement statistics related to these posts varied greatly. In addition to the social media outreach, follow-up calls and e-mails were made to the organizations that offered editorial insight on the earlier iterations to the survey. Several noted they had included mention of the survey in e-mails and / or newsletters sent by their organizations to their members.

Below is a summary of the timeline for the period while the survey was open, identifying important notifications and external engagement points.

Survey Notification Timeline:

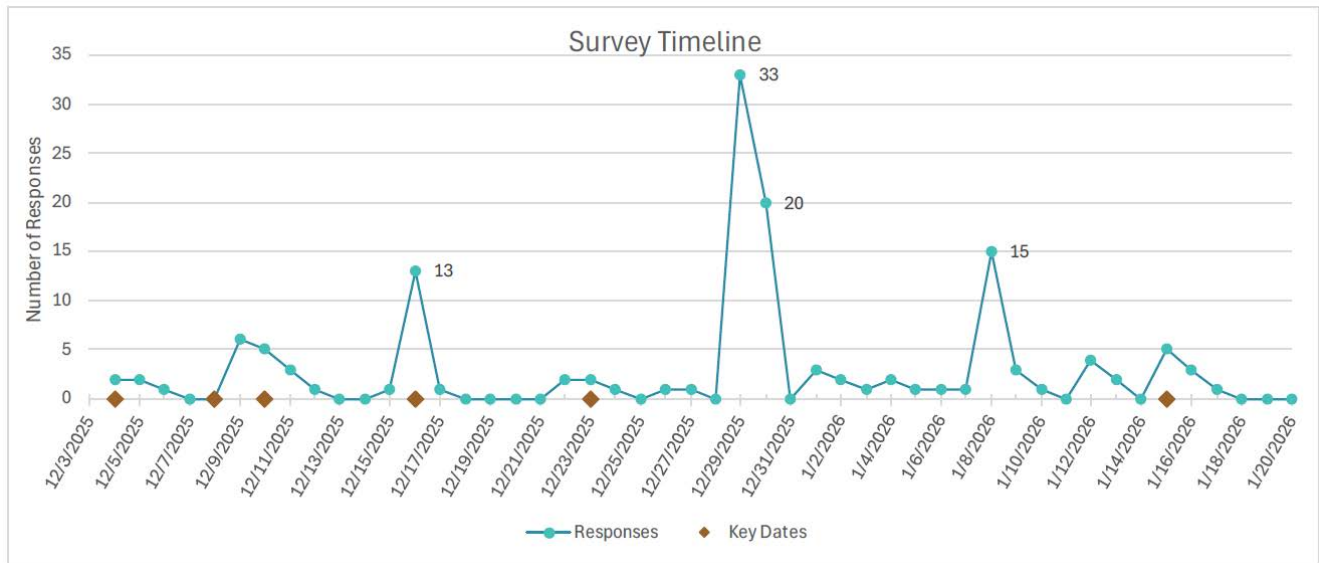
- 12/4/2025 – Survey opened; key external stakeholder organizations and 19 separate media contacts e-mailed notifications
- 12/4/2025 – The Trucker publishes article on Truck Parking Survey
- 12/8/2025 – E-mail notification sent to WisDOT's Freight Advisory Committee
- 12/10-15/2025 – Posters placed in SRAs / SWEFs
- 12/16/2025 – First round of social media outreach (Facebook, LinkedIn, and X)
- 12/16/2025 – WisDOT received an inquiry with questions from Trucking Dive
- 12/23/2025 – Article published in Trucking Dive
- 1/15/2026 – Second round of social media outreach (LinkedIn and X)
- 1/15/2026 – Second notification to media members and stakeholder organizations to boost response numbers
- 1/20/2026 – Survey closed at 12:00am

Figure 1: Sample Poster Design



Figure 2, below, displays the daily volume of surveys received with the blue dots. Red diamonds indicate key dates of outreach.

Figure 2: Survey Responses by Day and Outreach Points



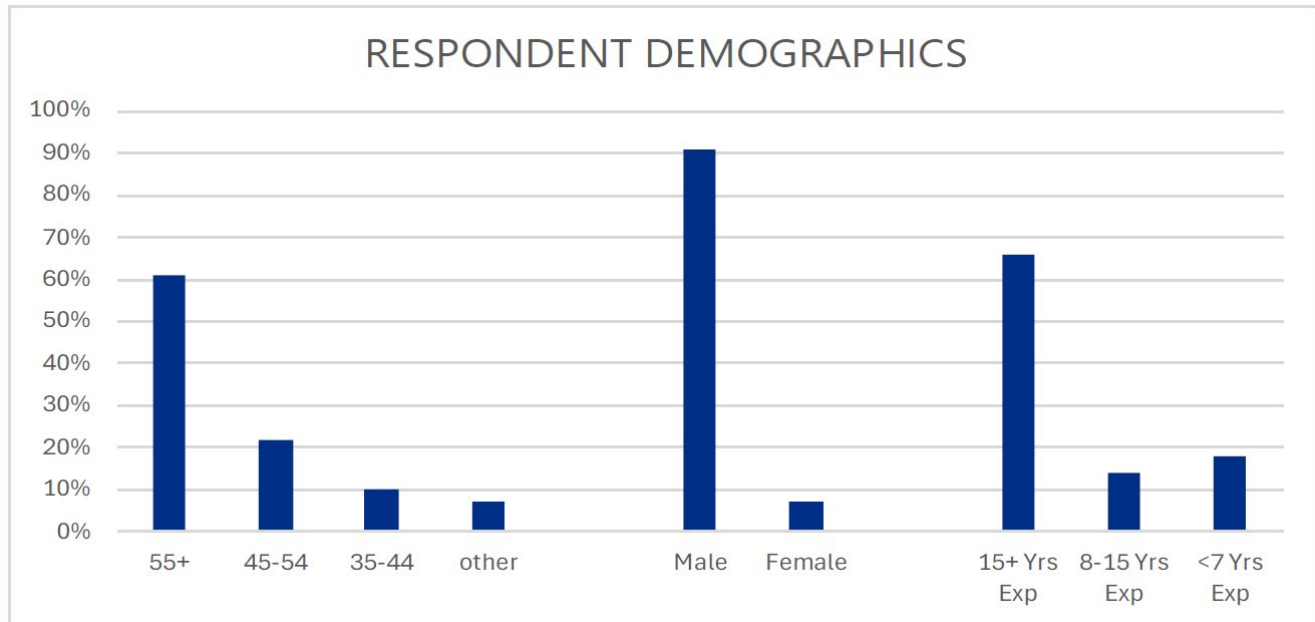
B.5. Responses

Overall, WisDOT received 140 total responses. Truck drivers accounted for almost 75 percent of responses (104); trucking companies accounted for 25 percent (35). Only one survey was submitted by a truck stop owner / operator. Of note, due to rounding and other reasons, including not all questions requiring or receiving a response, not all of the percentages in the following narrative add to 100 percent.

B.6. Truck Driver Cohort

Figure 3, below, summarizes the demographics of the survey respondents. Of note, the responses came from drivers who were older, predominantly male, and with at least 15 years of professional driving experience.

Figure 3: Demographics of Driver Responses



Of the 104 responses from truck drivers, slightly more than half (54 percent) identified as a company or fleet driver, while 27 percent identified as an owner-operator leased to a motor carrier, and 17 percent identified as independent owner-operators with their own authority. Fleet size varied greatly as a result; 39 percent reported their company fleet was more than 100 trucks, while 21 percent (owner-operators) reported fleets of only one truck.

The surveyed drivers work a wide range of typical haul lengths; 39 percent average 500 to 999 miles per haul; 31 percent typically haul 151 to 499 miles, and 23 percent average more than 1,000 miles per haul. These drivers also operate several different load configuration types. The most common reported configuration was truckload dry van, at 40 percent. Truckload reefer / temperature-controlled (17 percent) and flatbed (15 percent) were next, followed by tankers (nine percent). Another 10 percent of truck drivers reported other configurations, including hopper bottoms, dry bulk, livestock, and auto transport.

Survey respondents offered a mixed response to the question, “when compared with truck parking in other states, it is easy to find truck parking along major Wisconsin freight corridors.” As shown in Figure 4, the “neutral” option was most often selected.

Specific to Wisconsin’s SRAs, the responding drivers perceive them as close to full, if not past capacity. As shown in Figure 5, 35 percent of respondents felt Wisconsin’s SRAs are 75 percent full; 32 percent see those facilities as 100 percent full, and 22 percent see them as over their capacity. Only nine percent of responding truck drivers see SRAs as half (50 percent) full. This indicates a strong belief from the responding truck drivers that Wisconsin needs more truck parking.

Figure 4: Driver Perception of Truck Parking Availability in Wisconsin

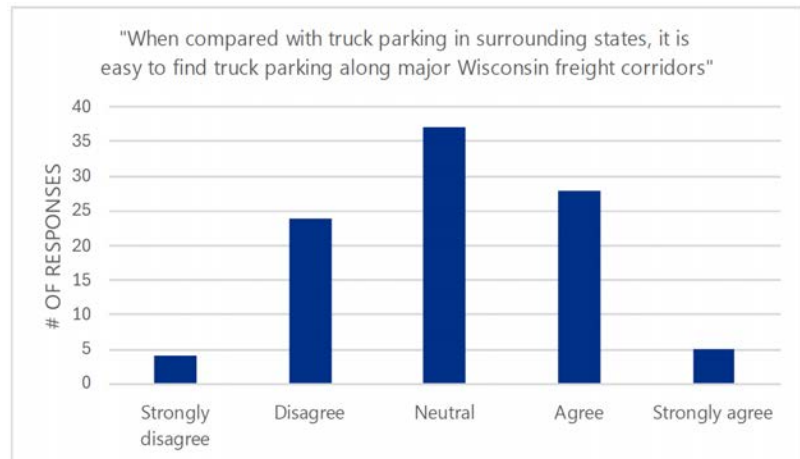
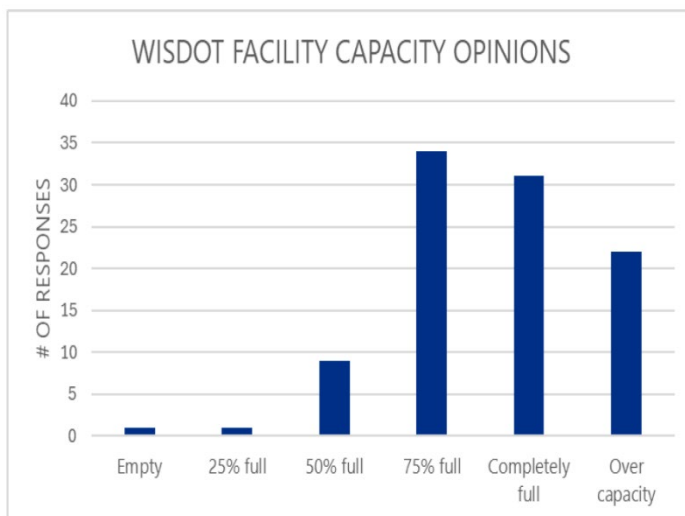


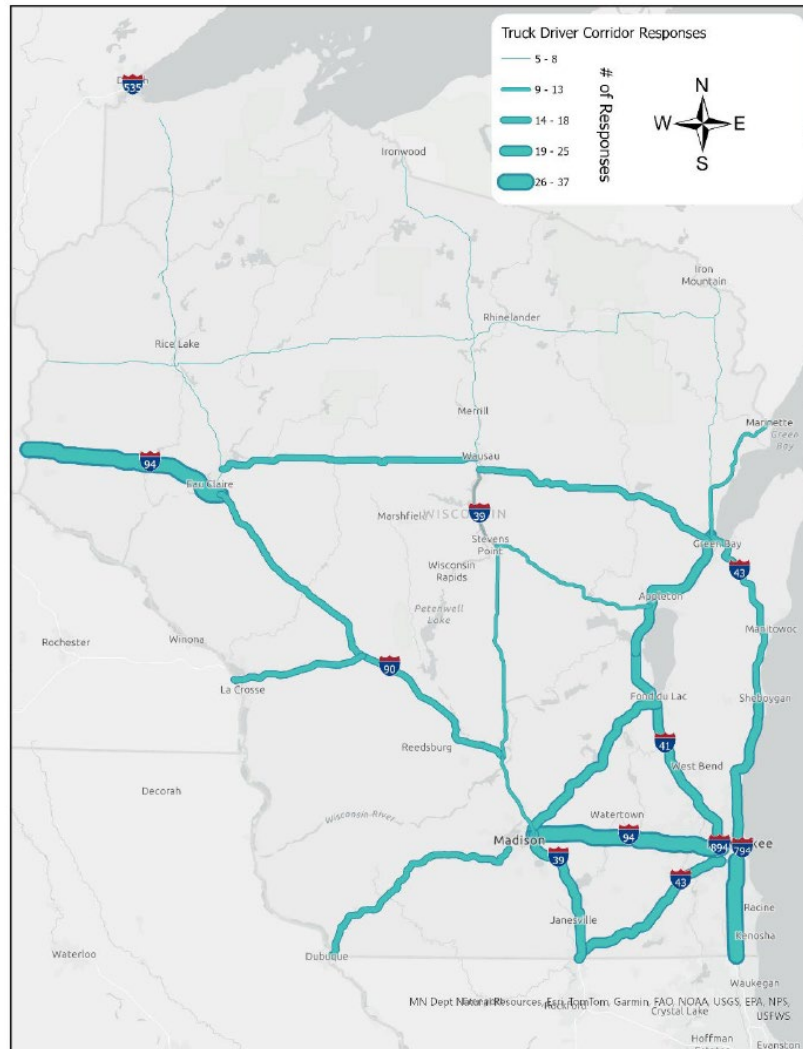
Figure 5: Driver Perception of Wisconsin Facility Capacity



The truck driver survey gave respondents the opportunity to give individual assessment of capacity needs at each of the 28 SRAs and 13 SWEFs. This took the form of asking if the location needed more parking, did not need more parking, or if parking needs were unknown. The limits of the survey instrument made asking this question somewhat repetitious for the survey taker; as such, many of these questions were skipped by a third of survey takers. There were some facilities, however, where response rates were higher, as were the “needs more parking” tally. The clearest demand for more parking was for SRA 26 Kenosha, where 78 percent of responses identified a need. Also rating near the top were SRA 62 Menomonie WB (70 percent), SRA 61 Menomonie

EB (66 percent), and SRA 10 Mauston (66 percent). Other locations with significant demand for more parking included SRA 14 Johnson Creek, SRA 22 Beloit, SRA 17 Janesville, SRA 13 Lake Mills, and SRA 31 La Crosse. None of the SWEFs had percentages of demand for additional parking comparable to the top tier of SRAs, but as with those facilities, SWEFs near large metropolitan areas rated the highest demand. These include SWEF 16 Madison, SWEF 21 Kenosha, SWEF 63 Menomonie, and SWEF 22 Racine.

Figure 6: Driver-Identified Corridors in Need of More Truck Parking



The truck driver survey also asked drivers to rate truck parking needs on 27 major corridors across all portions of the state. Response percentages to this question (83 percent) were much higher than for the individual WisDOT facilities. As shown in Figure 6, the corridor where drivers felt most strongly that more parking was needed was the I-94 corridor between Milwaukee and Madison, with 43 percent of responses saying more parking was needed. Other corridors rating highly were I-41/94 from the Illinois state line to Milwaukee, and I-94 from Eau Claire to the Minnesota state line. These results comport with the preferences expressed for more parking at WisDOT facilities along these corridors, underscoring a strong desire for additional parking along all routes going into and out of metropolitan Milwaukee, and in western Wisconsin near the Twin Cities.

As noted in the report, WisDOT provides driver information via multiple platforms, including its 511wi.gov application and the Truck Parking Information Management System (TPIMS) signage along several Interstate Highway segments. Usage of these tools is not widespread, at least according to the survey responses. Only 39



percent of respondents said they use the 511wi.gov system; another 30 percent use other traffic-related web applications, and another 30 percent do not use traffic related web applications. Regarding TPIMS usage, only 13 percent of respondents said they use it frequently, while 43 percent said they use it occasionally. Twenty percent of driver responses said they use TPIMS infrequently, and 25 percent said they never use it. When those who never use TPIMS were asked why not, their answers included:

- Had not heard of it (several responses)
- I know my route well enough to know where to find reliable parking
- Do not believe the system is accurate

The survey asked drivers how often and why drivers stop for breaks over 30 minutes in Wisconsin. A plurality of the driver responses (46 percent) indicated they park less than once per week in Wisconsin for their breaks. WisDOT SRAs are regularly used by most respondents, but not exclusively. Only 23 percent of responding drivers said they use WisDOT SRAs more than half the time; 60 percent of those drivers use these areas half the times or less; 16 percent replied they never use WisDOT SRAs. For SWEFs, use was minimal; 66 percent of responding drivers said they never use them for parking; 31 percent said they use them less than half the time. When drivers were asked if they knew they could park at SWEFs, 44 percent said they did, but don't use them; another 16 percent were unaware these facilities could be used for parking.

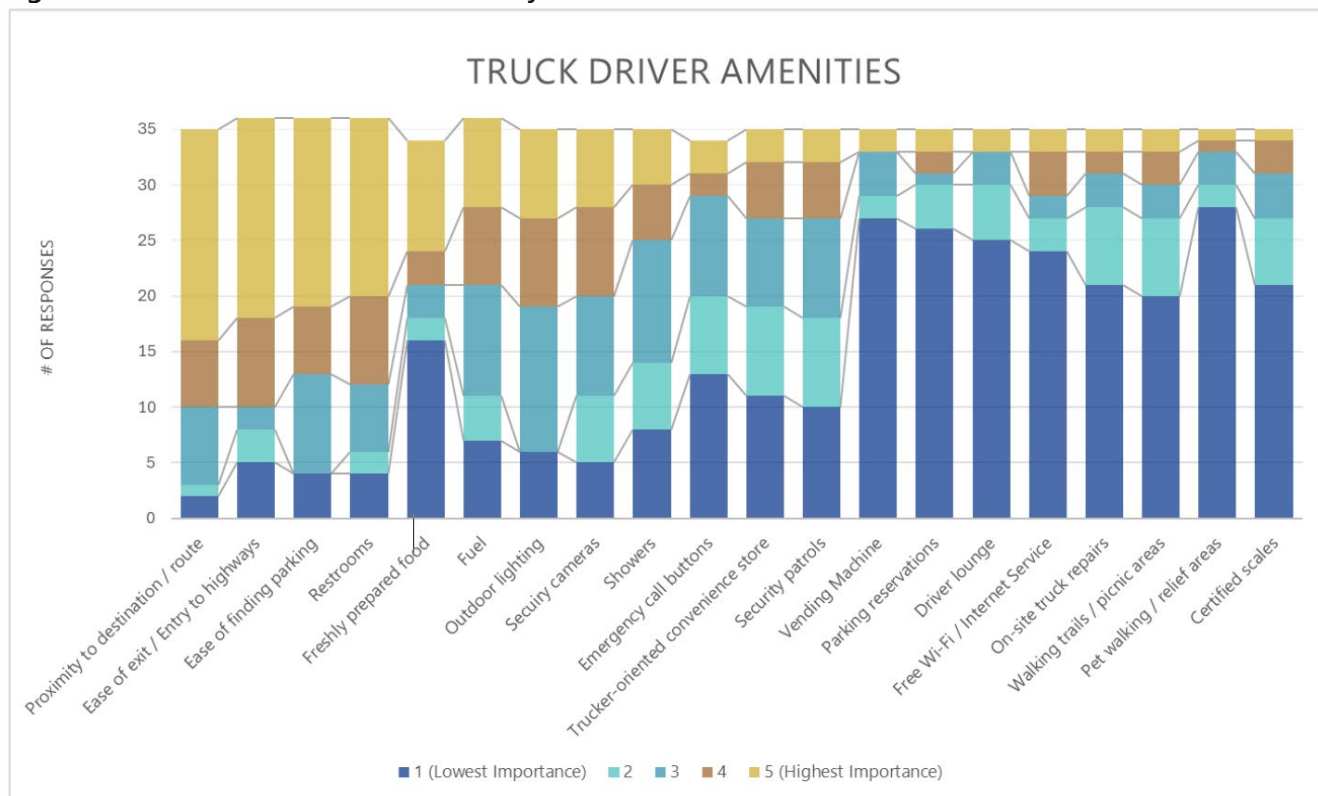
The responses indicated that when drivers stopped for longer than 30 minutes, the most likely reason was for their mandated 30-minute breaks. The next-most common reason to stop was for the 10-hour Hours-of-Service (HOS) break, followed by traffic or weather.

Most drivers reported they are generally able to find parking within 45 minutes of deciding to park; 30 percent said it took 15 minutes or less; another 27 percent said 15 to 30 minutes, and 26 percent said 30 to 45 minutes. When asked to pick a range of places where they preferred to stop, private truck stops (63 percent favorable) and WisDOT rest areas (53 percent favorable) were the top selections. Around a quarter of responses identified shipper / receiver lots; one in five said company terminals.

Drivers were asked to take an extended version of the survey, which asked questions of preferences. Just over one in three (38 total) agreed to answer these additional questions.

When asked, few drivers reported an issue with public rest areas. Two drivers noted closed rest areas; one said the parking area was open, but the building was closed; another had issues with bathroom cleanliness. Five drivers reported issues at private rest areas; these included poor / unclear bathrooms, poor food choices, and lack of adequate parking. One response complained of paid parking, another noted theft or vandalism.

Figure 7: Preferred Amenities as Rated by Truck Drivers



When asked about which amenities drivers prioritized in choosing locations for parking, the most critical concerns were proximity to destination / route, ease of exit / entry to highways, ease of finding parking, and restroom availability. Figure 7 shows the amenity options given in the survey and their rating on a one to five scale (with five as highest importance).

Almost all surveyed truck drivers have some means of communication to stay aware of changing situations. Of those responding, 95 percent have smartphones; 46 percent have on-board communications; 35 percent have a laptop computer, and 30 percent have an in-cab information system. Trucker Path was the preferred app for finding truck parking (52 percent); followed by no preference (33 percent) and MyPilot (15 percent). Unfortunately, the vast majority of respondents had low or medium confidence regarding information found on online truck parking platforms.

B.7. Motor Carrier Company Cohort

As noted previously, 35 survey responses came from non-drivers at trucking companies. The respondents skewed heavily towards larger companies; 80 percent of responses came from companies with 20 or more trucks.

As expected, trucking companies direct their drivers taking extended breaks to use either private truck stops (91 percent) or WisDOT rest areas (74 percent). But companies also have high recommendation levels for shipper /



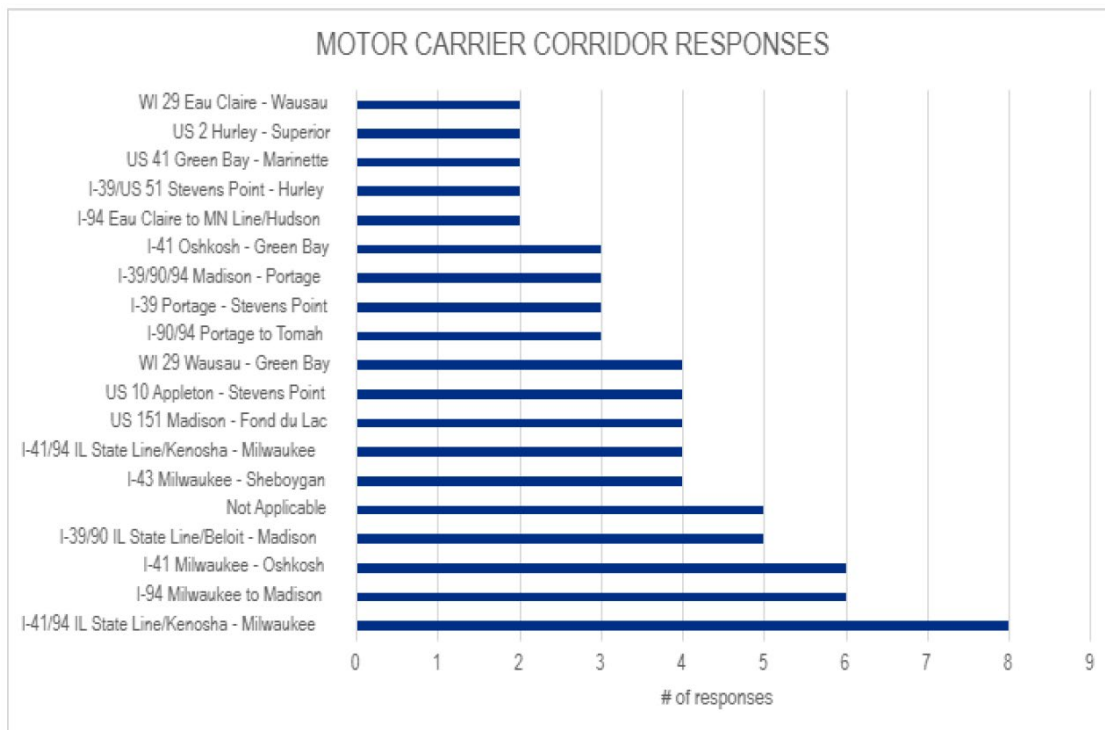
receiver lots (69 percent) and company terminals (60 percent). Conversely, when companies reported instructing drivers on where not to park, the highest-rated locations were public streets (86 percent), large retail store parking lots (57 percent), and WisDOT park / ride lots (49 percent).

When asked if drivers avoid stopping at certain locations, 83 percent of trucking company responses replied that they did. From a list of factors, the most frequently cited reasons were locations that have security concerns, locations where parking is not permitted, heavily congested locations, and those with a lack of amenities. Parking costs and enforcement concerns were also noted. One response noted a lack of disabled access as being a factor expressed by one of the company's drivers.

Trucking companies said their drivers regularly reported finding difficulty parking. Half (50 percent) of responses said the frequency was one to three times per week; 24 percent said the frequency was four to six times per week. Only 21 percent of responses indicated no driver reports of parking difficulty. Weekdays were noted as the most difficult to find parking; Monday was rated the highest with Tuesday, Thursday, and Friday also identified as days with the greatest difficulty.

When asked about major corridors with the greatest challenges to finding parking, 28 percent of trucking company responses identified the I-41/94 corridor from the Illinois state line to Milwaukee. Other top corridors of concern were I-94 from Milwaukee to Madison, I-41 from Milwaukee to Oshkosh, and I-39/90 from the Illinois border to Madison. Additional prioritized responses are listed in Figure 8, below.

Figure 8: Trucking Company-Identified Corridors in Need of More Truck Parking



Most trucking company responses indicated some regularity of experiencing impacts from their drivers lacking sufficient parking. The vast majority (87 percent) of trucking company responses said their truck drivers reported having to sometimes or frequently park in undesignated areas at rest areas. In addition, 76 percent of responses said truck drivers reported sometimes or frequently parking in non-rest area locations, while 74 percent reported that truck drivers sometimes or frequently parking in less safe locations. Figure 9, below, lists some of the potential impacts and ranks how often a lack of truck parking contributes to those impacts.

Figure 9: Impacts to Trucking Companies from Lack of Truck Parking

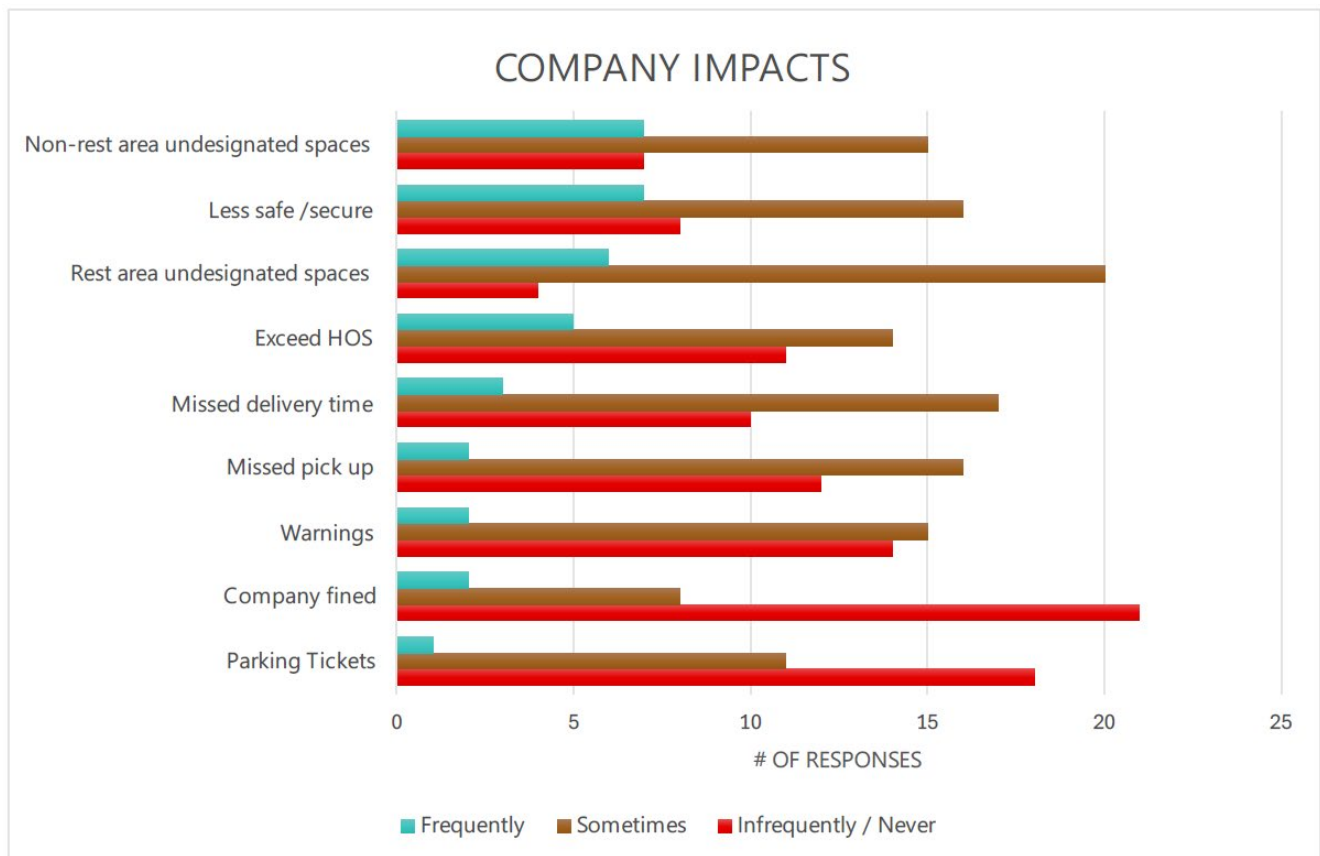
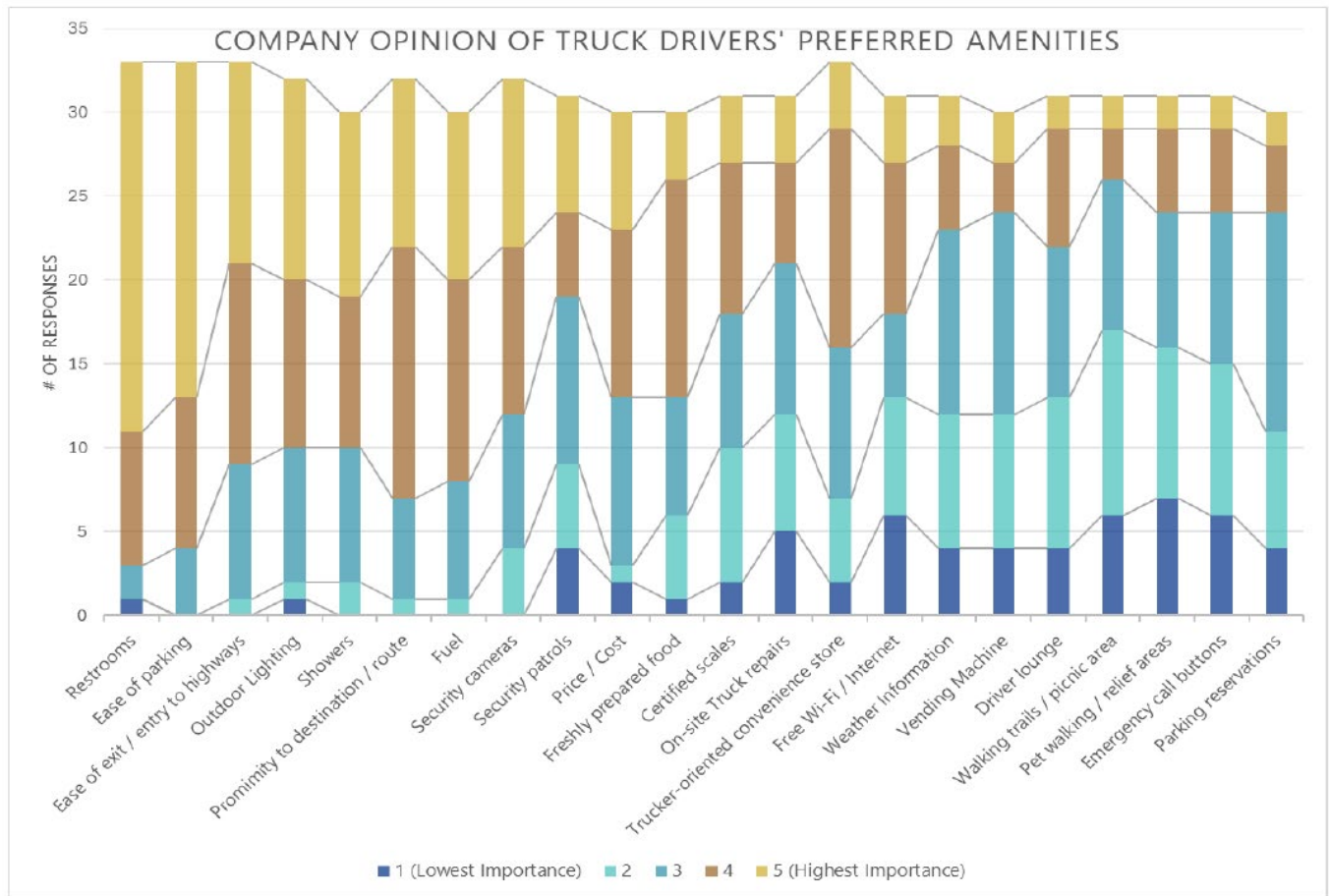


Figure 10: Preferred Amenities as Rated by Trucking Companies



When rating amenities that they think truck drivers seek, responses from trucking company staff closely matched those of the truck drivers who responded. As shown in Figure 10, above, the features they identified as most desired were restrooms, ease of parking, proximity to destination / route, and ease of entry / exit to highways. Other features that were rated highly by the trucking companies included outdoor lighting, fuel, security cameras, and showers.

B.8. Truck Stop Operator Cohort

Only one truck stop responded and answered a single question. Therefore, no meaningful analysis can be conducted.

B.9. Conclusions

While total survey responses were fewer than anticipated, there were some common themes that emerged from the responses, covering both truck drivers and trucking companies.



These include:

- The Southeastern Wisconsin area – especially on corridors leading to and from Milwaukee – consistently had the greatest desire expressed for increased truck parking spots. Waukesha / Pewaukee and Racine were specifically mentioned in trucker comments.
- The I-90/I-94 corridor between Beloit and Hudson is also a corridor with high demand for additional truck parking, especially at the western end between Eau Claire and the Minnesota state line.
- When drivers choose where to stop, the factors of highest significance are proximity to destination / route, easy off / on access to highways, ease of finding parking, and availability of rest rooms.
- Truck drivers stated a preference for private rest areas over public rest areas because of greater amenity availability (fuel, prepared food, showers, etc.).
- Truck drivers have strong aversion to the use of SWEFs for overnight / HOS parking.
- Based on this survey, trucker opinions and truck company opinions align closely with each other.
- Few drivers had issues with amenities at WisDOT SRAs; the primary issue was facility closure.
- In comments, drivers expressed dissatisfaction that shipper / receiver locations did not allow trucks to remain on premises for legally mandated break periods.
- Some truck drivers commented that there is a shortage of truck parking in the northern portion of Wisconsin.
- Some truck drivers offered praise to Wisconsin for the ability to find parking at the end of a shift.

In conclusion, the heat map below in Figure 11 visually depicts the level of trucker-expressed desire for additional parking spaces at the state's SRAs.



Figure 11: Wisconsin SRAs Rated by Number of Trucker Responses Recommending Additional Parking

