



# SMART TRUCK PARKING

February 5, 2015



# THE NEED FOR ACTION



## THE PROBLEM WITH TRUCK PARKING



*Photo from Jason Rivenburg Murder Scene, March 2009*



*Photo from Dunkin' Donuts Crash, November, 2014*



*Photo from Michael Boeglin Murder Scene, June 2014*



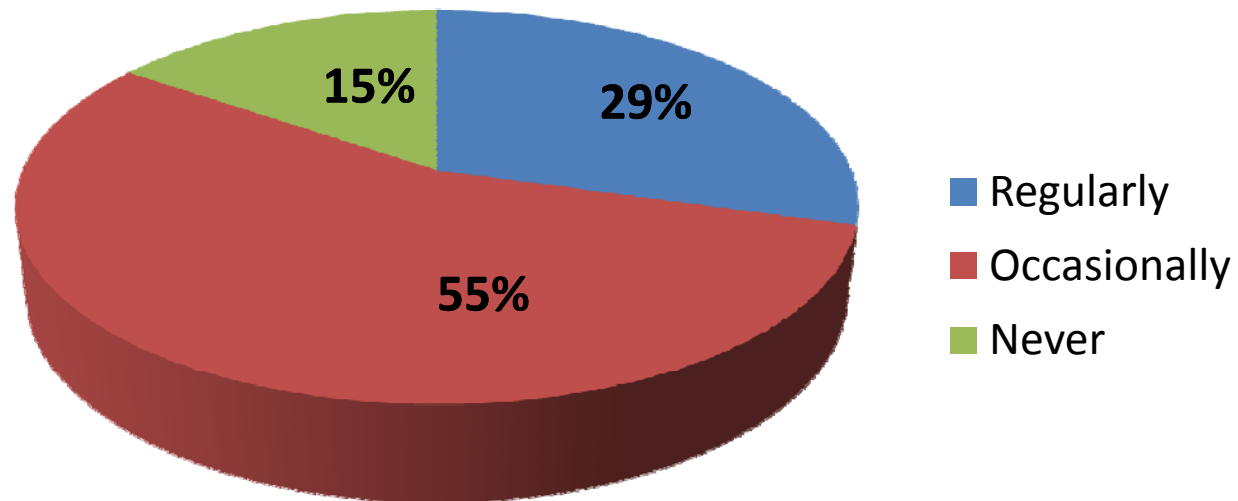


# THE NEED FOR ACTION



“How often have you found yourself fatigued and left with an unsafe feeling because you were not able to find a safe place to park your vehicle?”

## Fatigued Driving



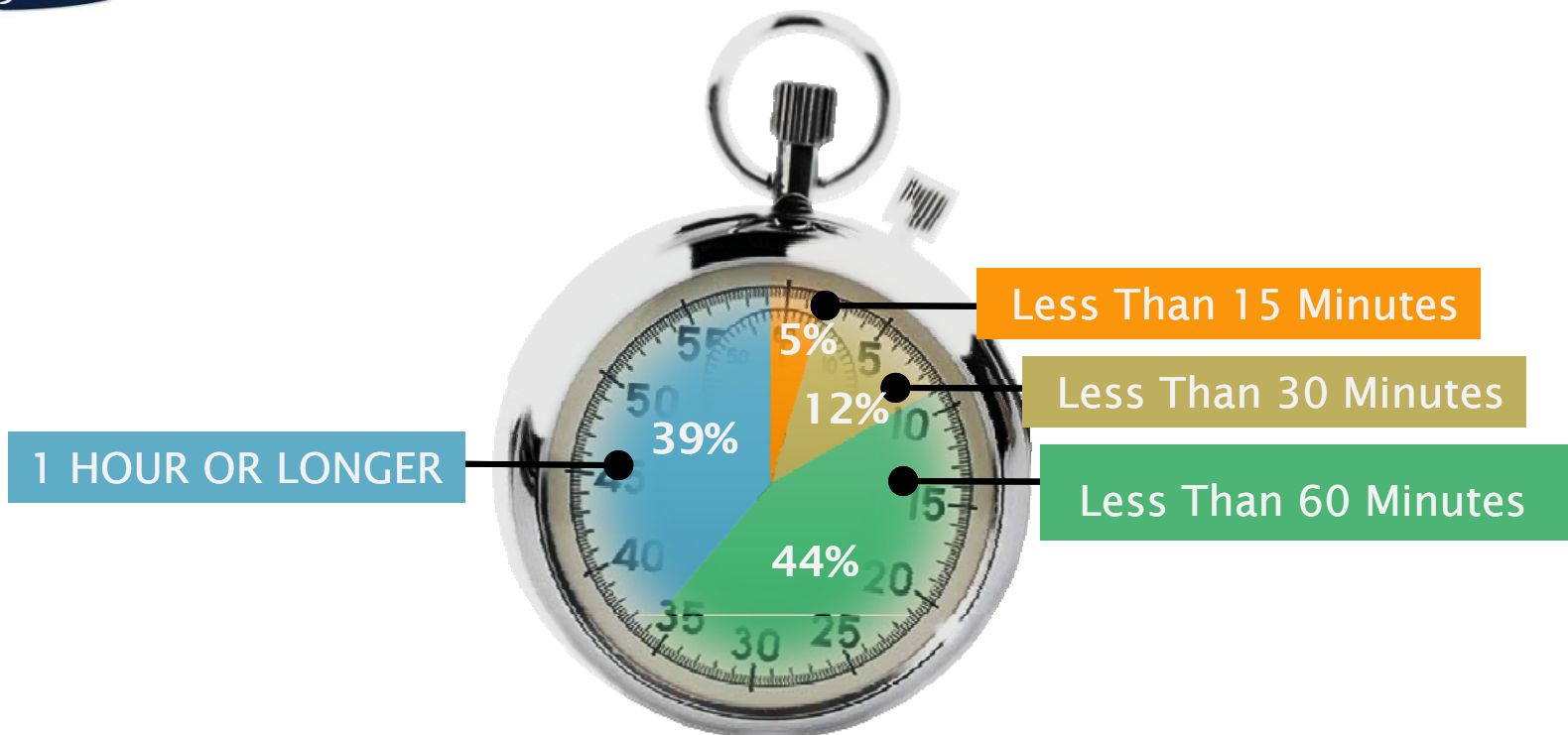
Survey materials courtesy of PowerPoint by Desiree Wood, Andrew Warcaba Associates and Hope Rivenburg



# THE NEED FOR ACTION



## HOW LONG DOES IT TAKE TO FIND PARKING?



Survey materials courtesy of PowerPoint by Desiree Wood, Andrew Warcaba Associates and Hope Rivenburg

# THE NEED FOR ACTION



## Safety Impact

- 8% crashes fatigue related (FMCSA)
- 15% fatal crashes fatigue related (NCHRP)

## Economic Impact

- 15 minutes = \$4.4B annually

## Environmental Impact

- 15 minutes = 3.3million TONS CO<sub>2</sub> annually



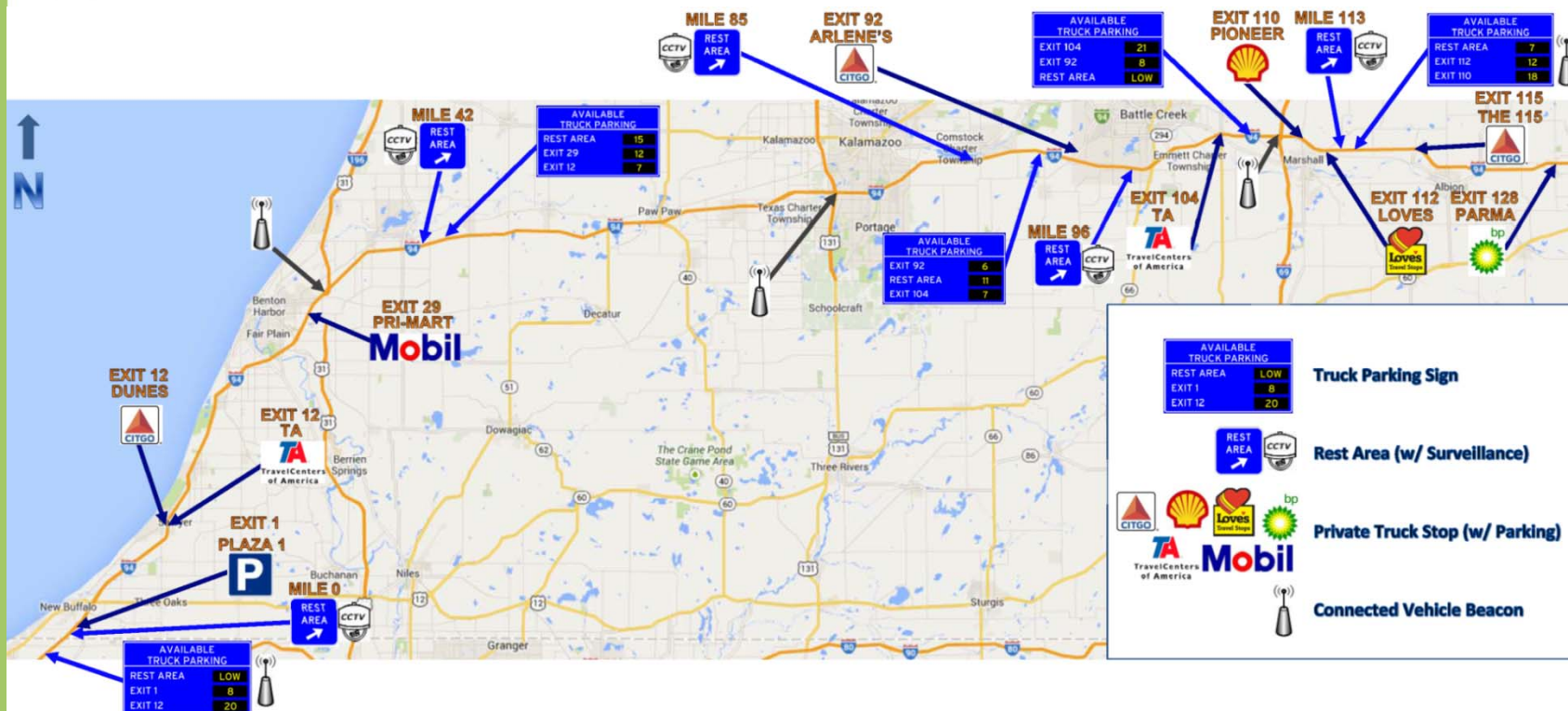




# Michigan's Truck Parking Project



## SOLUTION TO SMART TRUCK PARKING

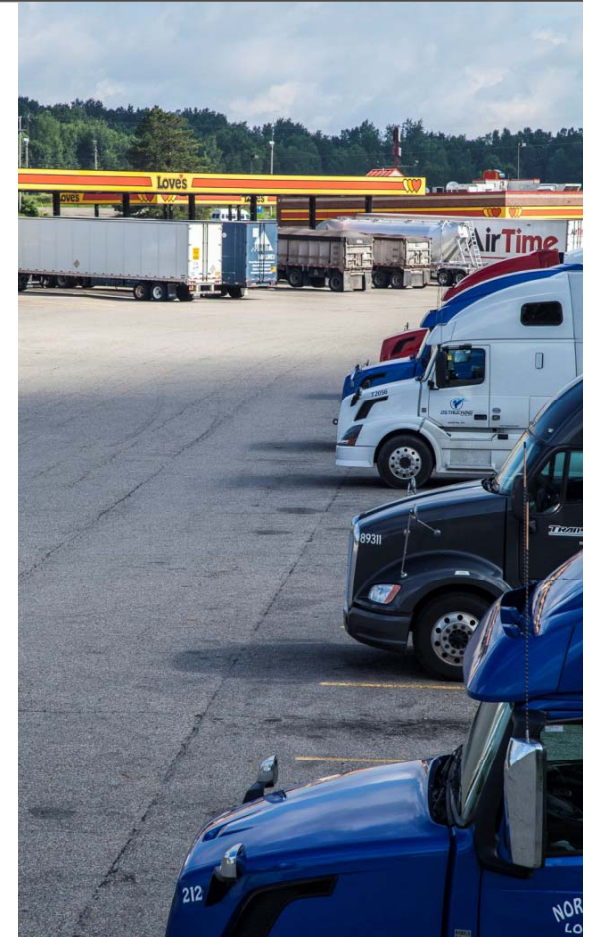




# PROJECT GOALS

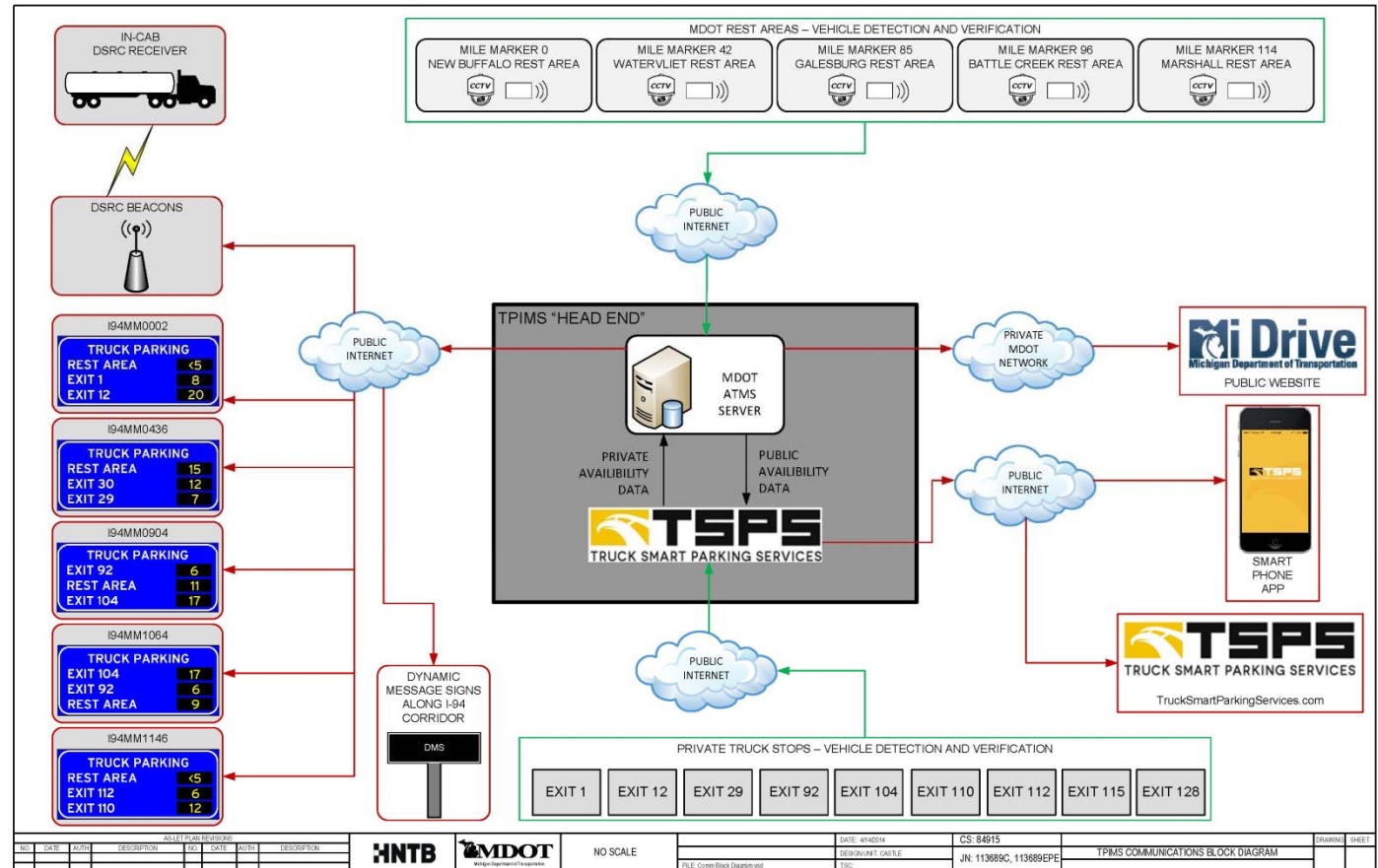


- Enhance highway safety by providing timely and **reliable** truck parking information
- Provide a **sustainable and scalable** truck parking solution
- Provide a secure solution that protects user privacy and data
- Maximize user acceptance of the system for truck parking decisions





# SYSTEM CONCEPT







## AVAILABILITY COMMUNICATION





# AVAILABILITY COMMUNICATION



[Michigan.gov Home](#) | [MDOT Home](#) | [Contact Us](#) | [Disclaimer](#) | [Requirements](#)



[Construction & Traffic](#) | [Mi Commute](#) | [Laws & Licensing](#) | [Maps](#) | [Truckers](#) | [My Cameras](#) | [Lane Closures](#)

## Jump to a Location

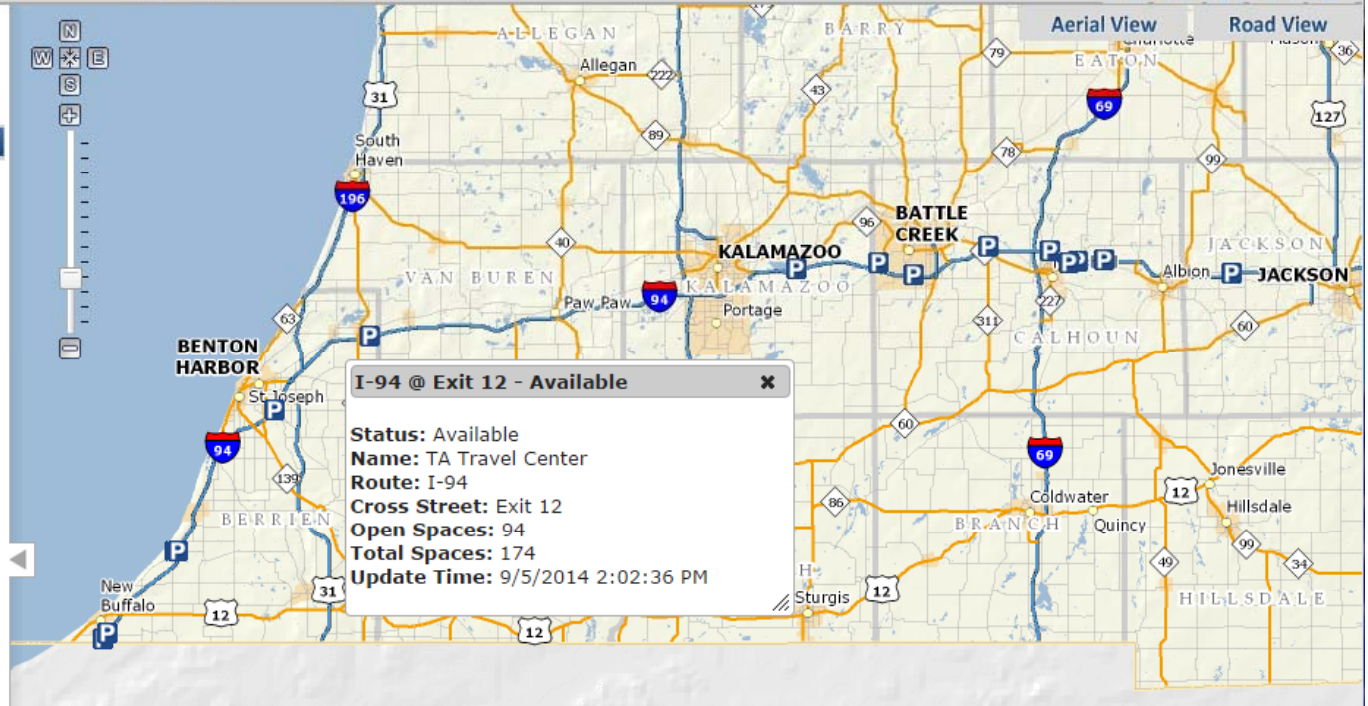
Enter Zip or City

Go

[Save View as Default](#)

## Map Legend

- ☐ Partial Construction Closure
- ☐ Future Construction
- ☐ Total Road Closure
- ☐ Camera Image
- ☐ Camera with Weather
- ☐ Current Speed (mph)  
0 1-10 11-20 21-30 31-40 41-50 51-60 61-70
- ☐ Active Incident
- ☐ Clearing Incident
- ☐ Message Signs
- ☒ Truck Parking
- ☐ Carpool Lots
- ☐ Rest Areas
- ☐ Roadside Parks
- ☐ Passenger Airports
- ☐ Public Airports
- OR Just Display...
- ☐ Major 2014 Projects





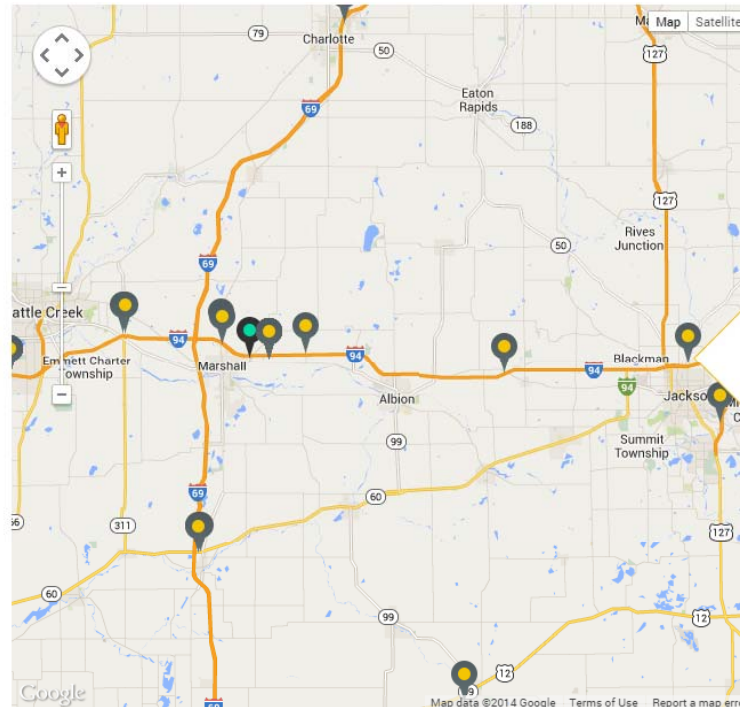
# AVAILABILITY COMMUNICATION

[ABOUT](#)[FIND PARKING](#)[CONTACT](#)

## Find Parking

### LOCATION

### AVAILABILITY

☐ Show only lots with availability

### LOVE'S TRAVEL STOPS #336

#### AVAILABILITY

**78**[Refresh](#)

Counted At: Sep 5th, 2:14:15 pm -04:00



Photo Taken: Sep 5th, 2:02:36 pm -04:00

#### ASSOCIATIONS

Pathway NATSO

#### CARDS

American Express Bank Debit Card  
Discover MasterCard  
Visa

#### ENTERTAINMENT

Game Room



# AVAILABILITY COMMUNICATION

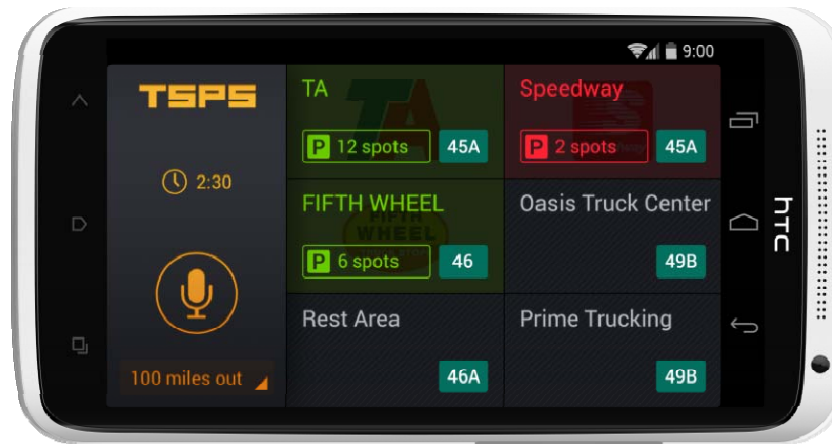


**kapsch** >>>

Parking Information Ahead

Service	Miles	Stalls	Trend
REST AREA	MILE 1	22	—
EXIT 1	13	—	—
EXIT 12	23	—	—
EXIT 12	23	—	↑
EXIT 29	13	—	—
EXIT 30	22	—	—
EXIT 56	9	—	↓
EXIT 92	16	—	↓
REST AREA	MILE 95	7	—

Age of data: 0 min







# SMART TRUCK PARKING VISION



- Unified, interstate, national Truck Smart Parking network
- Leverage public & private resources to form coalitions
- System is scalable, live and production-ready for expansion



# TRUCK SMART PARKING VISION



## Safety Benefits

- Allows safer parking decisions; reduces fatigue related crashes
- Removes trucks from ramps, shoulders



## Economic Benefits

- Drivers & Carriers more efficient; increased profitability
- Truck Stops increase business; potential to monetize largest asset (land)



## Environmental Benefits

- 15 minutes saves 2 gallons diesel; fewer greenhouse gasses



# TRUCK SMART PARKING



# QUESTIONS?





# TRUCK SMART PARKING



**For further information contact:**

**Elise Feldpausch, PE**  
**Intelligent Transportation Systems Engineer**  
[feldpausche1@michigan.gov](mailto:feldpausche1@michigan.gov)

or

**Collin Castle, PE**  
**Connected Vehicle Technical Manager**  
Email: [castlec@michigan.gov](mailto:castlec@michigan.gov)

