



# ATDM

## Active Transportation & Demand Management



## Introduction

**Tim Simodynes**

Iowa DOT  
State Traffic Operations Engineer

**Jon Markt**

HDR  
Traffic PE / Transportation Planner

# Introduction

## ATDM

### Active Transportation & Demand Management

ATDM is the dynamic management, control, and influence of travel demand, traffic demand, and traffic flow of transportation facilities. Through the use of available tools and assets, traffic flow is managed, and traveler behavior is influenced in real-time.

# Introduction

The principal aspect of ATDM is to **dynamically manage and control** travel and parking demand and traffic flow using and integrated strategies.

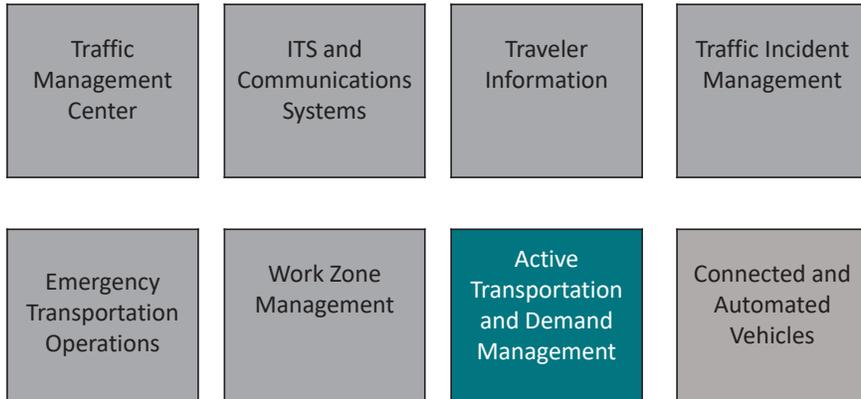
Use available technology to make changes before conditions deteriorate

The transportation system is continuously monitored.



# Introduction

ATDM is one of 8 service layer plans (SLP) from the Iowa DOT's TSMO (Transportation System Management & Operations) Plan



# Introduction

ATDM strategies will support the DOT's 2025 business plan goals

Goal	Outcomes
✓ Improve Transportation System Safety and Performance	<ul style="list-style-type: none"> <li>• Zero fatalities in work zones</li> <li>• Total traffic fatalities significantly reduced</li> <li>• Increased efficiency, reliability of transportation system</li> </ul>
✓ Improve Customer Service	<ul style="list-style-type: none"> <li>• Greater levels of customers satisfaction</li> </ul>
Advance Workforce for Future Challenge & Opportunities	<ul style="list-style-type: none"> <li>• Engaged and empowered employees</li> <li>• Increased diversity, equity and inclusion</li> <li>• Steady reduction in turnover rate</li> </ul>
✓ Secure Stable & Sustainable Funding	<ul style="list-style-type: none"> <li>• Diversified funding mechanisms</li> <li>• Reduced technical debt</li> </ul>
✓ Grow Innovation	<ul style="list-style-type: none"> <li>• Adopt smart technologies</li> <li>• Culture innovation</li> <li>• Modernize systems</li> </ul>

# Developmental Process

ATDM strategies are created from the needs and opportunities for areas determined by many stakeholders



## Iowa Department of Transportation

- Traffic Operations Bureau
- Field Operations Division – Districts
- Location and Environment Bureau
- Traffic & Safety Bureau
- Systems Planning
- Motor Vehicle Enforcement
- Maintenance Bureau
- Construction & Materials Bureau



## External Stakeholders

- MPOs / RPAs
- Cities
- Multi-Disciplinary Safety Teams (MDSTs)
- Public Transportation Agencies
- Iowa State University (InTrans)

## Active Traffic & Demand Management Sample Strategies



Ramp Metering



Dynamic Shoulder Lanes



Transit Signal Priority



Adaptive Traffic Signal Control

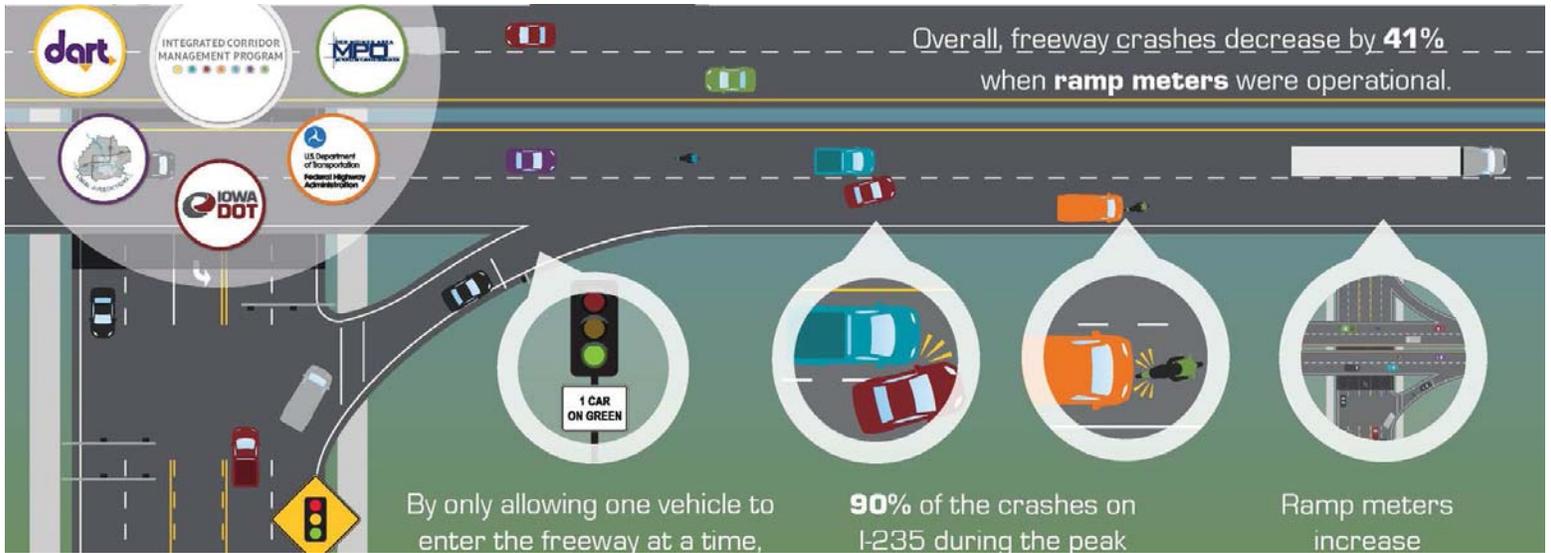


Active Parking Management



Dynamic Speed Advisories

# ATDM Deployment



# ATDM Deployment

## Opportunities



High Traffic Volumes  
Capacity Bottlenecks



Changes in Prevailing Conditions



High prevalence of crashes  
Variability in trip reliability



Construction Impacts



Adverse weather



Roadway geometry  
Limitations in capacity expansion

# ATDM Deployment

## Considerations



### Deployment cost

Capital costs, Operations costs, Maintenance costs



### Performance Management

Active Reactive Management



### Staffing Needs



### Legislation

Enforcement

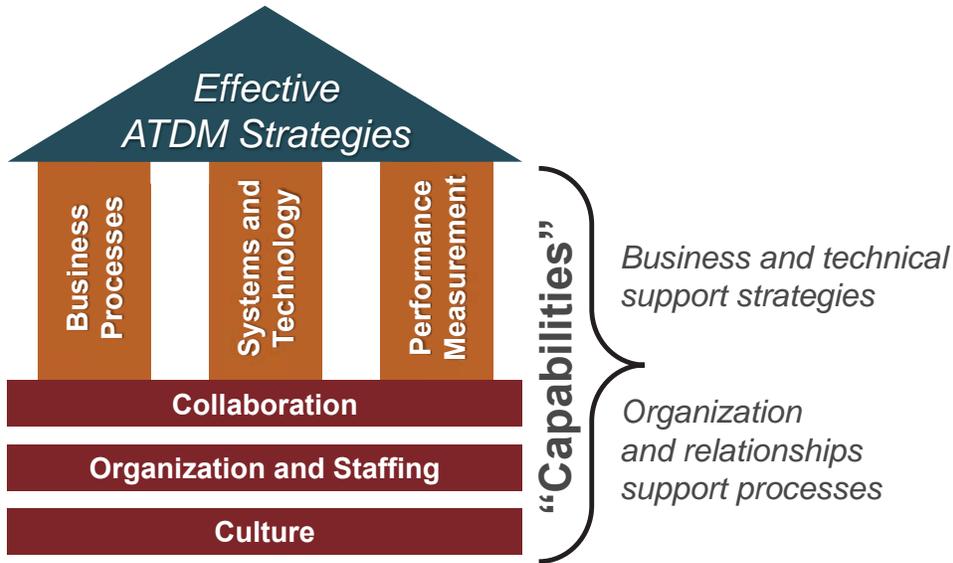
## Active Traffic & Demand Management Strategies

### Mentimeter Activity

- Open a web browser
- Go to [www.menti.com](http://www.menti.com)
- Enter Code: **xxxx xxxx**

The screenshot shows a web browser window with the URL [menti.com](http://menti.com). The page displays the Mentimeter logo and the text "Please enter the code". Below this is a text input field containing the code "5342 4318". A blue "Submit" button is located below the input field. At the bottom of the page, there is a small note: "The code is found on the screen in front of you".

# ATDM Agency Readiness



## Next Steps



### Schedule



# Next Steps

Complete survey to express interest

Use QR code or follow the link below



[www.surveymonkey.com/r/YY96QDZ](https://www.surveymonkey.com/r/YY96QDZ)

# Next Steps

Contact us with questions or to discuss further

## Tim Simodynes

Iowa DOT  
*State Traffic Operations Engineer*



**Phone** 515.239.1606  
**Email** [tim.simodynes@iowadot.us](mailto:tim.simodynes@iowadot.us)



## Jon Markt

HDR  
*Traffic PE / Transportation Planner*



**Phone** 402.399.1080  
**Email** [jonathan.markt@hdrinc.com](mailto:jonathan.markt@hdrinc.com)

