

# West Michigan Transportation Operations Center

Serving Motorists on West Michigan Freeways

[www.michigan.gov/its](http://www.michigan.gov/its)

[www.michigan.gov/drive](http://www.michigan.gov/drive)

November 2011



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**West Michigan TOC Control Room**  
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Fax: 616-774-9101

## In the Spotlight

Research shows that motorists using real-time traveler information are able to improve the reliability of an on-time arrival. The Michigan Department of Transportation (MDOT) operates four transportation operation centers (TOC) across the state in order to monitor real-time traffic and travel conditions of major highways, gather this information, and provide it to motorists.

One way MDOT provides travel information to motorists is by displaying travel-time messages on Dynamic Message Signs (DMS). Approximately one year ago, the WMTOC began posting travel-time messages on several DMS located before major interchanges leading into the Grand Rapids metro area. This information allows motorists to make informed travel decisions and possibly avoid delays.

This past summer, MDOT installed six additional DMS on I-196, I-96, and M-6, all within the metro area. These new DMS display metro-area travel-time information, as well as travel information for motorists leaving Grand Rapids for surrounding locales. Two additional DMS are currently planned for the east end of M-6.

The real-time vehicle speed information that is used to generate the DMS travel times is supplied by a variety of sources and also supports the traffic-speed information displayed on the Mi Drive website -[www.michigan.gov/drive](http://www.michigan.gov/drive).



# WMTOC Control Room

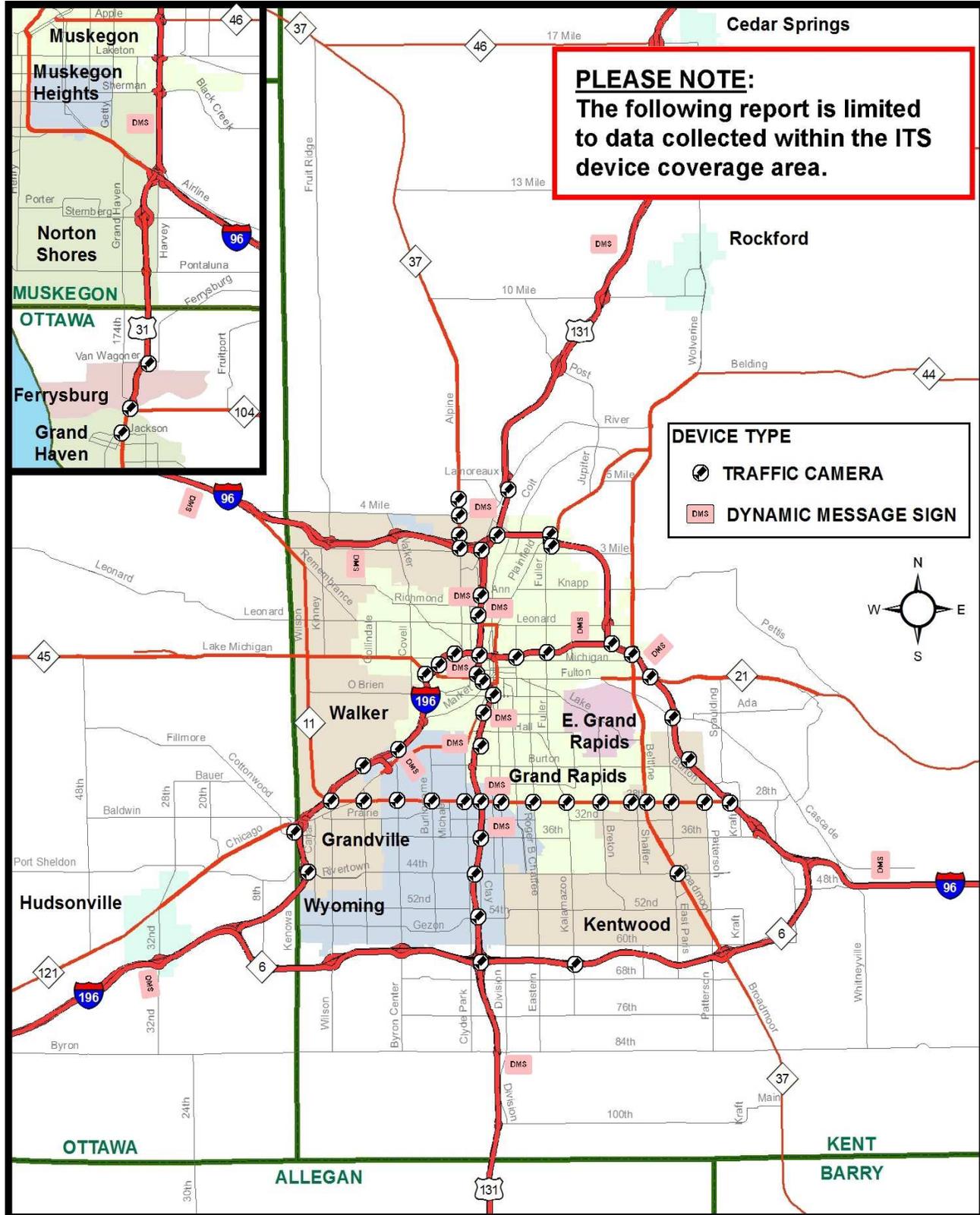
## Hours of Operation

Days	Hours
Monday – Thursday	6 a.m. – 8 p.m.
Friday	6 a.m. – 9 p.m.
Saturday – Sunday	Noon – 8 p.m.
Special Events and Holidays	As needed

## Contact Information

E-mail: MDOT-GR-TRAFFOPS@michigan.gov  
 Phone: 616-451-8329  
 Fax: 616-774-9101

## ITS Device Locations and Coverage Area



# Summary

## Data Key

## November 2011

### WMTOC Communications Activity



Operators log all incoming and outgoing control room communications, engaging various incident responders and stakeholders.

### Total Communication

**Calls: 226**  
**E-mails: 243**

### Quality Assurance/Quality Control



Quality assurance and quality control audit of format and content for incident notification communication and media traffic reporting.

### Incident Notification

**Format Correct 100.0%**  
**Content Correct 97.6%**

### Unplanned Incidents



Operators log information about each unplanned incident including date/time, location, traffic impact, duration, and associated traveler information.

### Total Incidents

75

### Construction Activity



Operators maintain a list of ongoing construction projects and contacts for these projects. This activity also includes maintenance operations.

### Incidents Occurring in Work Zones

6

### Daily Shift Report



Operators track maintenance issues for all Intelligent Transportation Systems (ITS) equipment, including Closed-circuit Television (CCTV) cameras, Microwave Vehicle Detector Systems (MVDS), Dynamic Message Signs (DMS), and Variable Speed Signs (VSS).

### System Availability

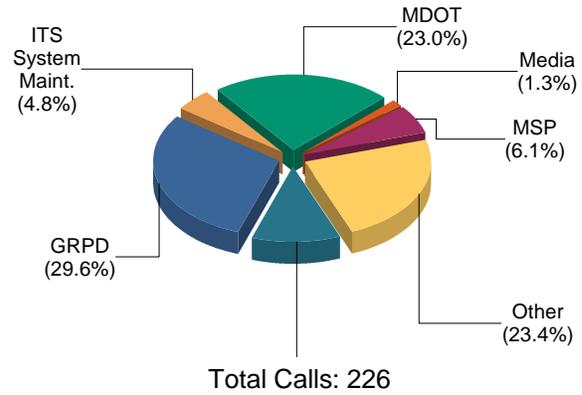
**CCTV: 83%**  
**MVDS: 67%**  
**DMS: 94%**  
**VSS: 100%**

## Calls and E-mails by Type

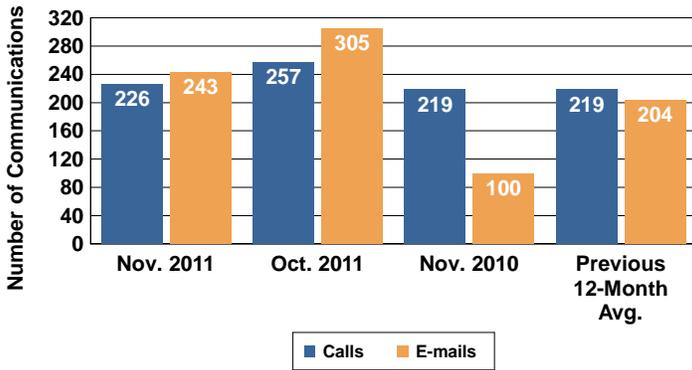


Agency	Calls			E-mails		
	In	Out	Total	In	Out	Total
City of Grand Rapids	0	0	0	18	0	18
Grand Rapids Police Department	6	61	67	0	0	0
ITS System Maintenance	3	8	11	6	4	10
Kent County Road Commission	2	6	8	0	0	0
Kent County Sheriff	0	0	0	0	0	0
Listserv (Traffic Notifications)	0	0	0	104	41	145
MDOT, Construction	8	1	9	39	0	39
MDOT, Maintenance	9	5	14	0	0	0
MDOT, Other	4	1	5	0	0	0
MDOT, Traffic/ITS	11	13	24	11	1	12
Media	2	1	3	0	0	0
Michigan State Police	0	14	14	0	0	0
Other	39	6	45	8	0	8
URS Corporation	18	8	26	3	2	5
Weather	0	0	0	6	0	6
<b>Month Total</b>	<b>102</b>	<b>124</b>	<b>226</b>	<b>195</b>	<b>48</b>	<b>243</b>

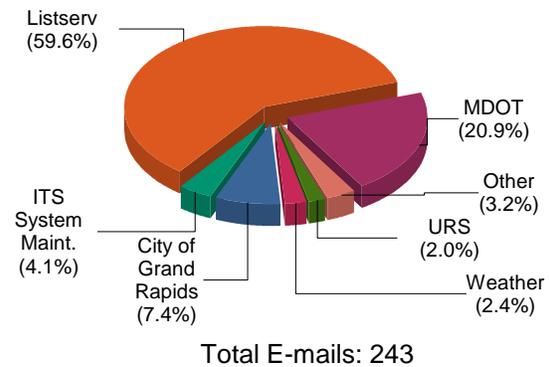
## Calls by Type



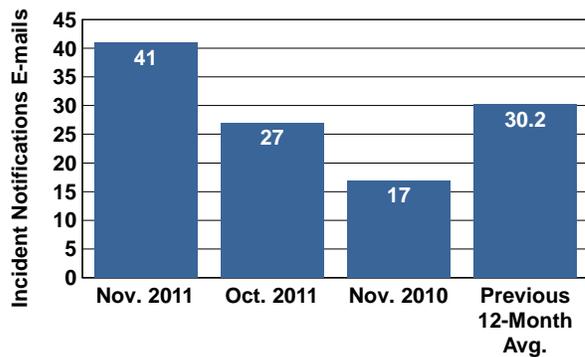
## Communication History



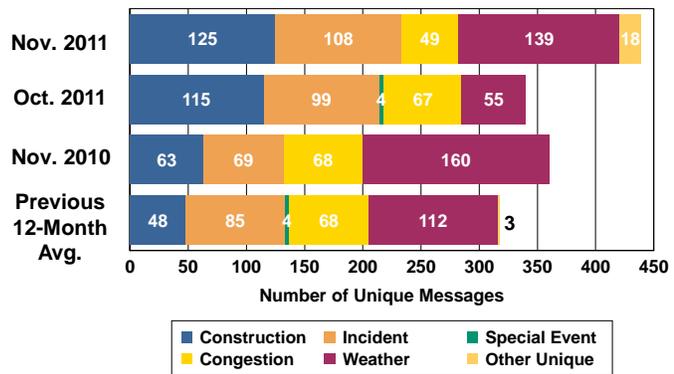
## E-mails by Type



## Incident Notification\* History



## DMS and VSS Messages by Type

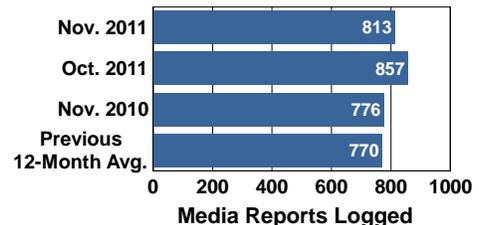


## Incident Notification\* Communication Accuracy



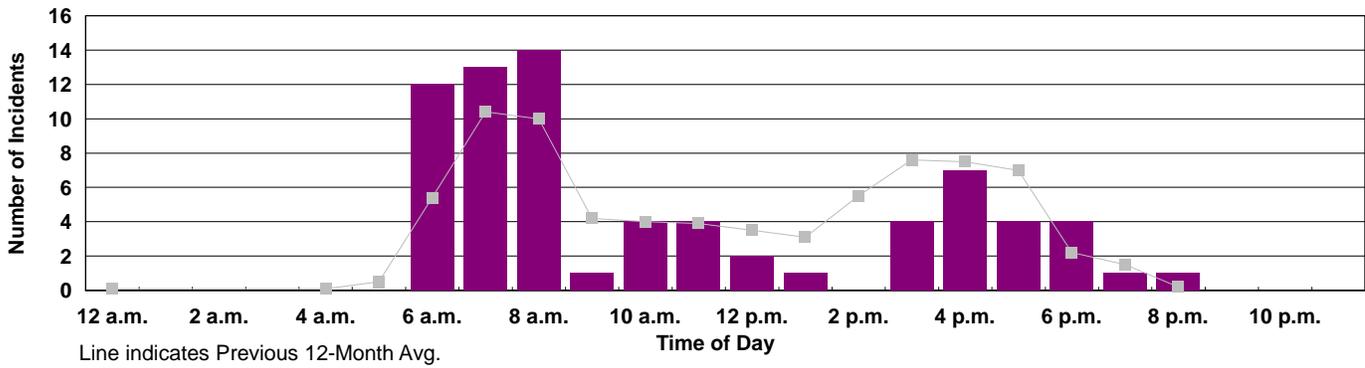
	Nov. 2011	Oct. 2011	Nov. 2010	Previous 12 Months
Format Correct	100.0%	100.0%	100.0%	98.1%
Content Correct	97.6%	100.0%	100.0%	96.4%

## Media Audits

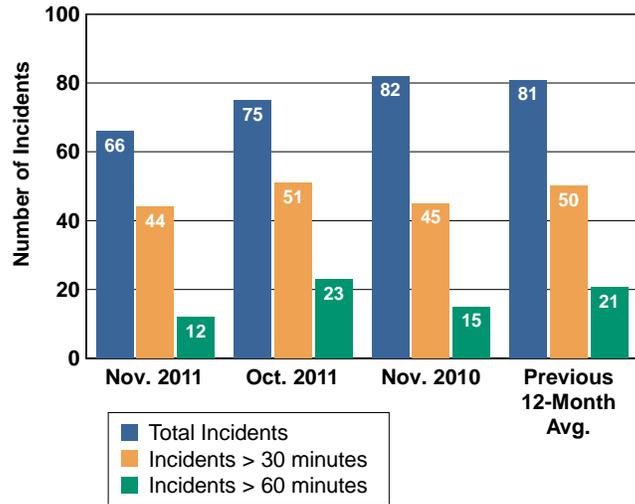


\*Incident Notification e-mails are issued for high-impact incidents with an expected duration of 15 minutes or greater. To subscribe to this list, please visit the MDOT listserv by following this link.

# Total of Unplanned Incidents per Weekday Hour

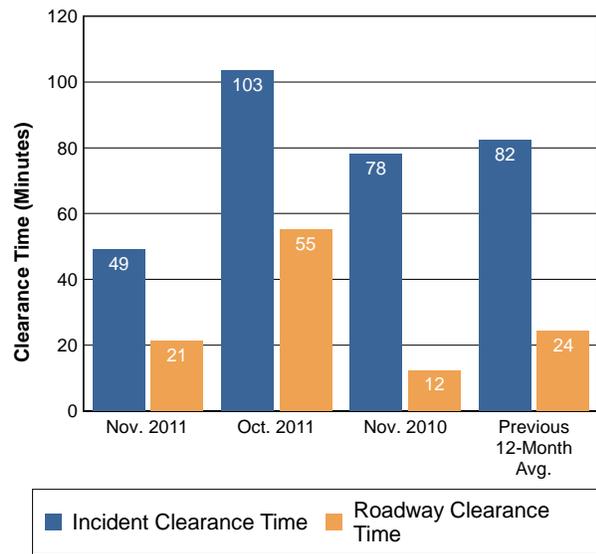


# Incident Clearance Breakdown\*

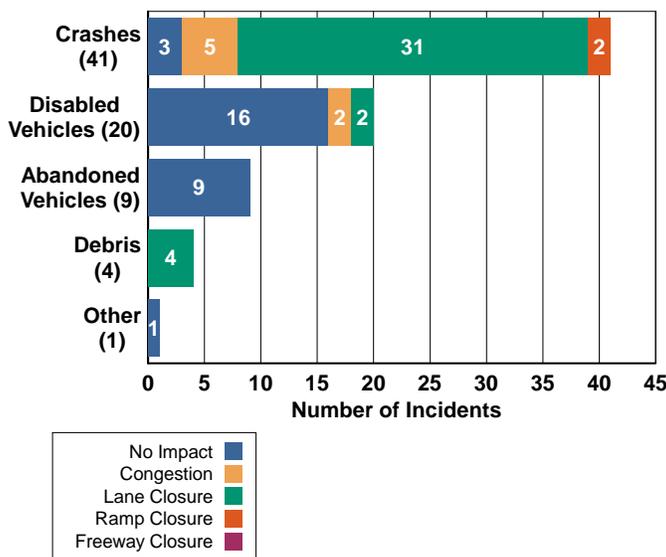


\*Incident Clearance Breakdown excludes abandoned vehicles.

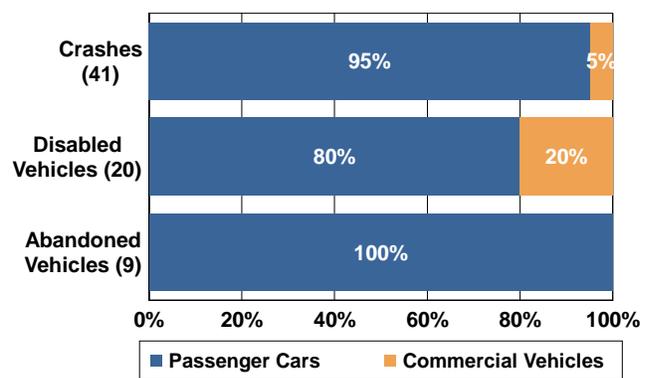
# Incident/Roadway Average Clearance Times



# Traffic Impacts by Type\*



# Vehicle Composition of Incidents\*



\*Vehicle Composition of Incidents excludes incidents where vehicle types were not identified.

# Secondary Crashes

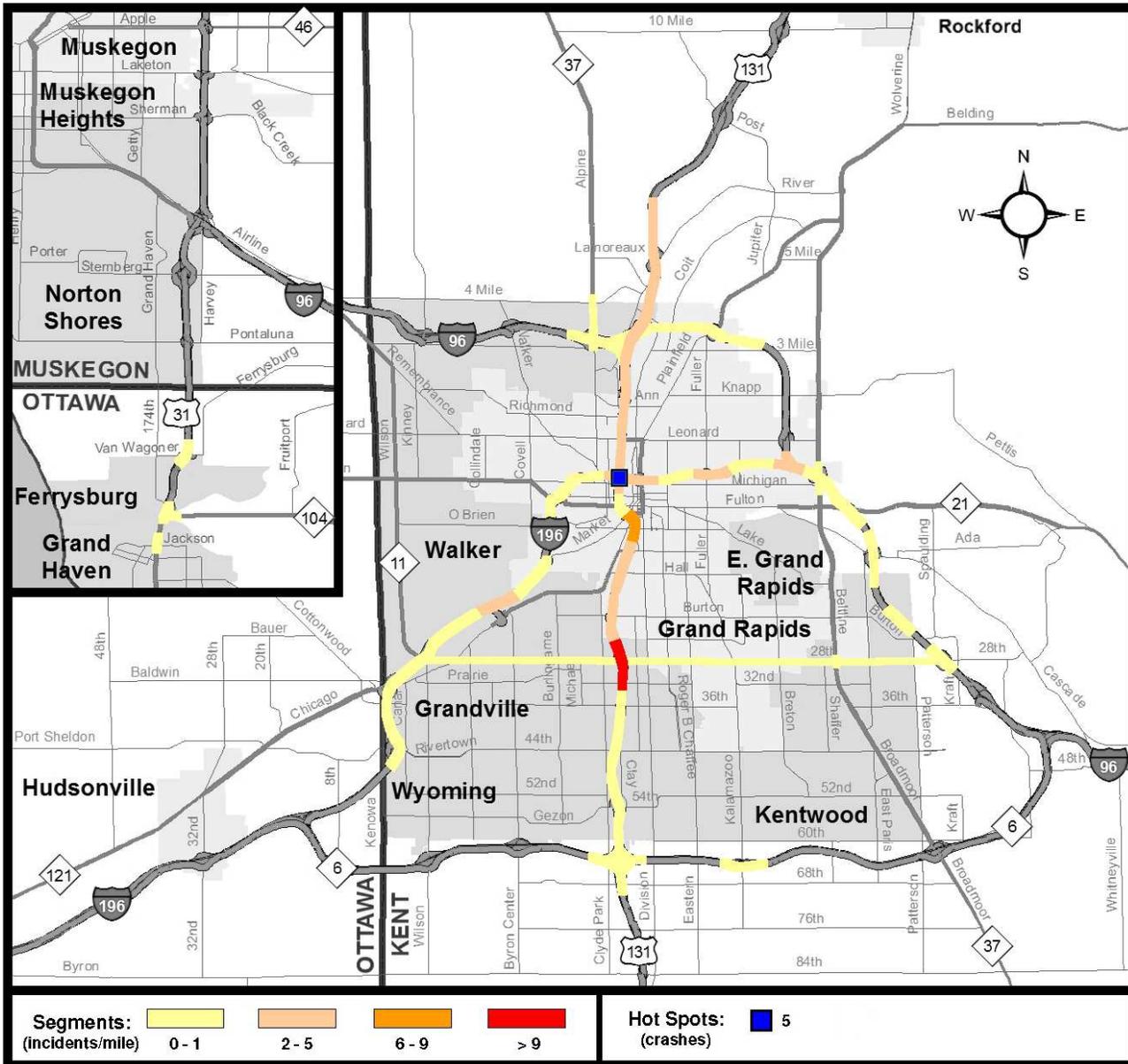


Month	Secondary Crashes	Total Crashes
November 2011	1 (2%)	41

[Note: MDOT Fiscal Year 2011 (Oct. 2010 to Sept. 2011) data is not directly comparable with current data]



# Incident Density and Hot Spots Map



Incident Management



## High-impact Unplanned Incident Activity\*



Incident Impact	Nov. 2011	Oct. 2011	Nov. 2010	Previous 12-Month Avg.
Lane Closure	37	38	31	34.5
Ramp Closure	2	4	2	3.5
Freeway Closure	-	-	-	1.8

\*High-impact Unplanned Incident Activity includes unplanned incidents resulting in closures.

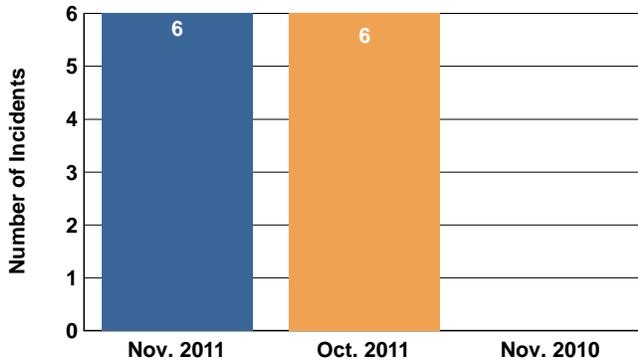
## Unplanned Incidents by Roadway within Coverage Area



Freeway/Arterial	Nov. 2011		Oct. 2011		Nov. 2010		Previous 12-Month Avg.	
	Total	per mi.	Total	per mi.	Total	per mi.	Total	per mi.
I-96 (4.5 mi.)	3	0.7	10	2.2	16	3.6	9.4	2.1
I-196 (8.5 mi.)	12	1.4	11	1.3	32	3.8	21.9	2.6
US-131 (11 mi.)	41	3.7	41	3.7	52	4.7	49.5	4.5
M-11 (12.1 mi.)	-	-	-	-	-	-	-	-
<b>Month Total</b>	<b>56</b>	<b>1.6</b>	<b>62</b>	<b>1.7</b>	<b>100</b>	<b>2.8</b>	<b>80.8</b>	<b>2.2</b>

[Note: MDOT Fiscal Year 2011 (Oct. 2010 to Sept. 2011) data is not directly comparable with current data]

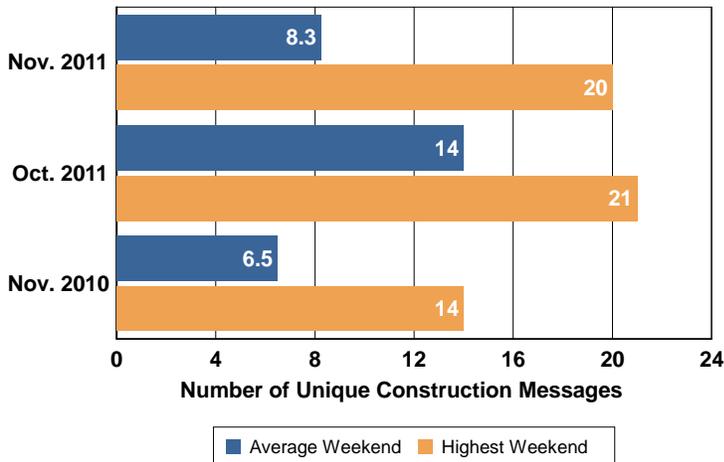
## Incidents Occurring in Work Zones



### Work Zone Incident Details:

During the month of November, six incidents were identified by operators as being within work zones. Two crashes occurred on eastbound Fuller Avenue within the Fuller Avenue bridge project work zone. In addition, there was one disabled vehicle on eastbound Fuller Avenue within the same work zone. There was debris on northbound US-131 within the Burton Street bridge work zone. An abandoned vehicle blocked the right shoulder on southbound US-131 at 36th Street within the US-131 at 36th Street bridge replacement work zone. One crash occurred on southbound US-131 at Ann Street during short-term construction on US-131 at I-196.

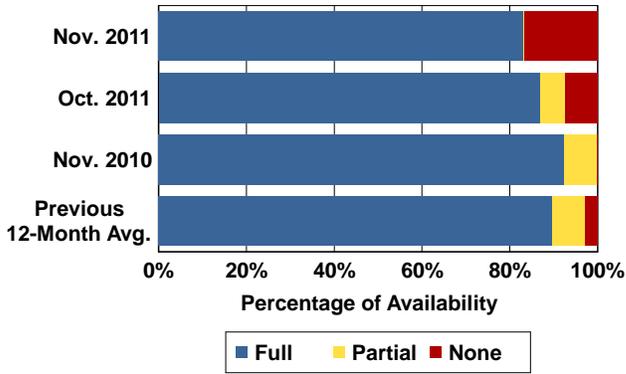
## Weekend\* Construction DMS Message Activity



\* Friday, Saturday and Sunday.



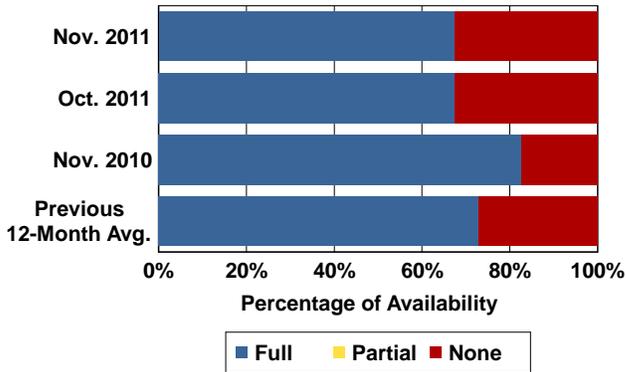
## Overall CCTV Camera Availability



## Individual CCTV Camera Availability

CCTV Cameras Below 95% Availability			
Location	Full	Partial	None
1. I-96 Conn. to US-131	-	5%	95%
2. I-96 @ E. Beltline Ave.	-	-	100%
3. I-96 EB @ Plainfield Ave.	5%	-	95%
4. I-96 WB @ Plainfield Ave.	5%	-	95%
5. US-131 @ Wealthy St.	53%	-	47%

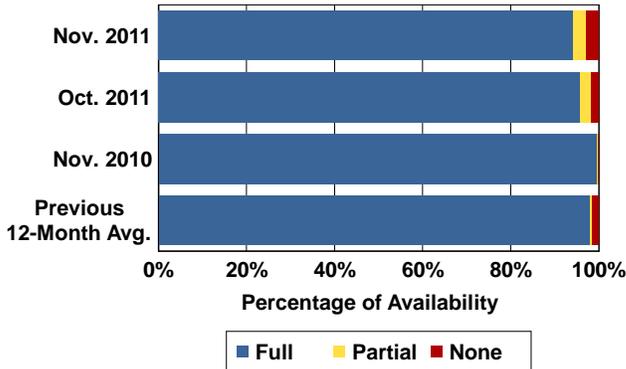
## Overall Detector Availability



## Individual Detector Availability

Vehicle Detectors Below 95% Availability			
Location	Full	Partial	None
1. 114N - I-196 WB @ Monroe	-	-	100%
2. 114S - I-196 EB @ Ottawa	-	-	100%
3. 119 -	-	-	100%
4. 125 - I-96 EB @ E. Beltline	-	-	100%
5. 201 - US-131 NB S of 36th	-	-	100%
6. 204 - US-131 NB S of 28th	-	-	100%
7. 226 - US-131 SB @ I-96 WB	-	-	100%
8. 227 - US-131 NB @ I-96 WB	-	-	100%
9. 230W - I-96 @ US-131	-	-	100%
10. 231 - US-131 N of I-96	-	-	100%
11. 102 - I-196 @ Market	4%	-	96%

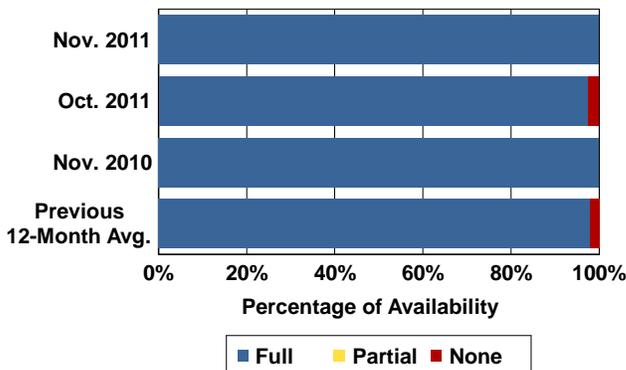
## Overall DMS Availability



## Individual DMS Availability

DMS Below 95% Availability			
Location	Full	Partial	None
1. US-131 NB @ Franklin St.	49%	-	51%
2. US-131 SB @ Pearl St.	63%	37%	-
3. US-131 NB @ 36th St.	84%	16%	1%

## Overall VSS Availability



## Individual VSS Availability

VSS Below 95% Availability			
Location	Full	Partial	None
None.			

