

# 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)

May 2011



**Suzette Peplinski, P.E.**  
1420 Front Avenue NW  
Grand Rapids, MI 49504  
[PeplinskiS@michigan.gov](mailto:PeplinskiS@michigan.gov)

**West Michigan TOC Control Room**  
E-mail: [MDOT-GR-TRAFFOPS@michigan.gov](mailto:MDOT-GR-TRAFFOPS@michigan.gov)  
Phone: 616-451-8329  
Fax: 616-774-9101

## In the Spotlight



The number of construction projects on Grand Rapids-area freeways increased during May corresponded to an increase in phone calls and e-mail communications with MDOT construction personnel and contractors, and an increase in DMS construction messaging, especially during the weekends.

Two construction projects, one in Oceana County and one in Ionia County, are utilizing portable changeable message signs (PCMS) that can be controlled by the WMTOC. WMTOC has coordinated with MDOT construction personnel in order to use the PCMS to display travel time or construction-specific messages through work zones.

Two crashes were identified by control room operators as being within work zones this month. One crash occurred on eastbound I-96 at Cascade Road and resulted in a 90-minute full eastbound closure followed by a 90-minute right-lane closure. The second crash occurred on eastbound I-96 at Fuller Avenue, resulting in a 30-minute right-lane closure.

May's sole crash hot spot was in the vicinity of northbound US-131 and Franklin Street. WMTOC operators logged four crashes involving lane closures at this location. Three of the crashes occurred during the afternoon peak traffic period, and all of the crashes affected at least the left lane. One crash occurred in the queue of vehicles that resulted from a disabled semi on the northbound US-131 off-ramp to Wealthy Street.

The month of May also marked one year since the WMTOC moved into the new control room. It has been exciting to see how operations have changed in the last 12 months. The next year will be full of change as well, since the number of ITS devices will increase by approximately 40 traffic cameras, 10 dynamic message signs, and 75 vehicle detectors.

Compiled by:  
**URS**

## Control Room Hours of Operation

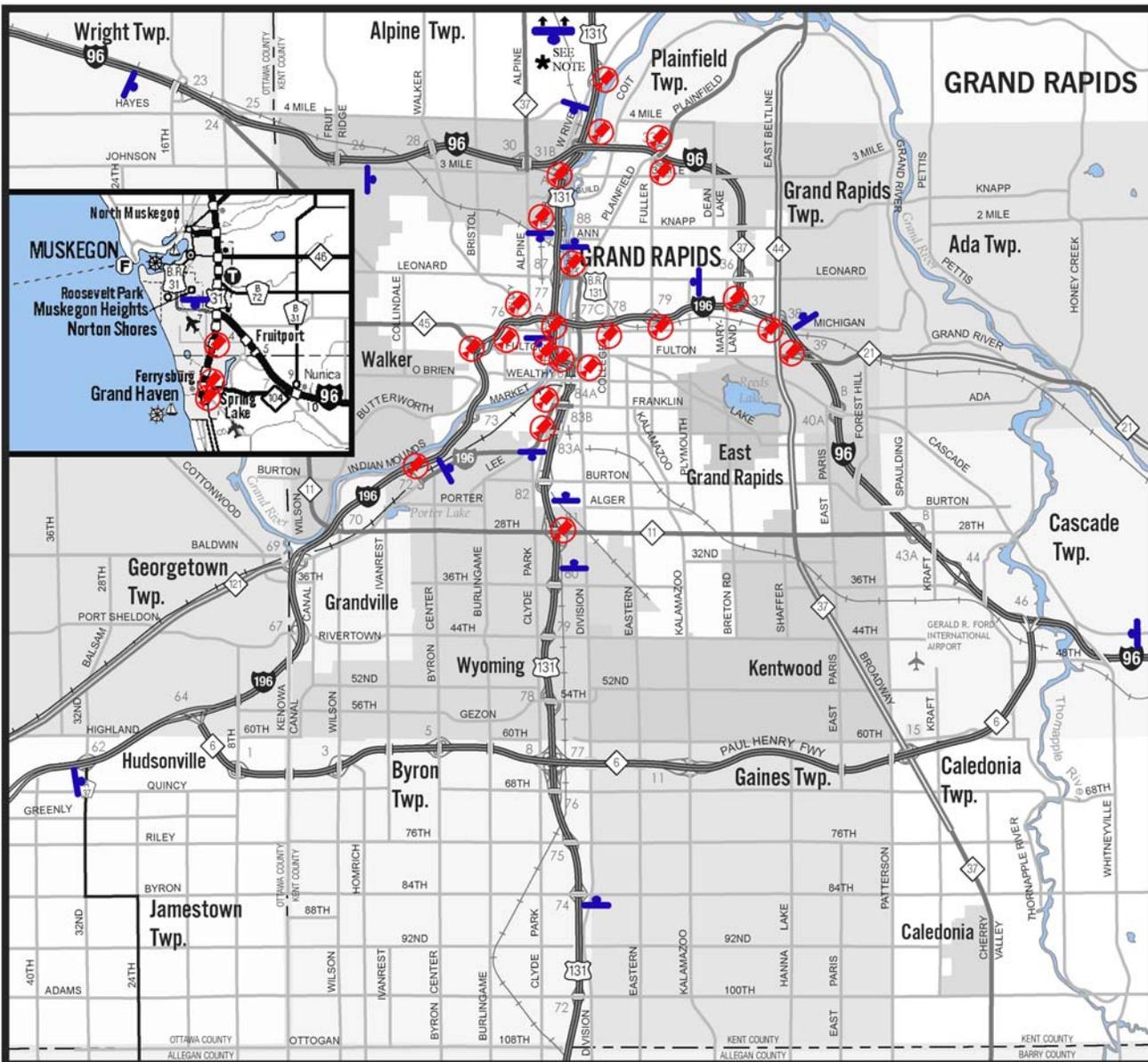
Time Period	Days	Hours
October - April	Monday - Friday	6 a.m. - 8 p.m.
	Saturday - Sunday	Noon - 8 p.m.
May - September	Monday - Thursday	6 a.m. - 8 p.m.
	Friday	6 a.m. - 9 p.m.
	Saturday - Sunday	Noon - 8 p.m.
Special Events	All	As needed
Holidays and Holiday Weekends	New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas	As needed

## Control Room Contact Information

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

**PLEASE NOTE:**  
 The following report is limited to data collected within the ITS device coverage area during control room operation hours.

## ITS Device Locations and Coverage Area



\* DMS on South US-131 at Rockford Rest Area

**Key:**  Closed-circuit Television Camera  
 Dynamic Message Sign

# Summary

## Data Key

## May 2011

### Communications Activity



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

### Total Communication

**Calls: 220**  
**E-mails: 255**

### 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 94.7%**  
**Content Correct 89.5%**

### Unplanned Incidents



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

### Total Incidents

**54**

### 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

**2**

### 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

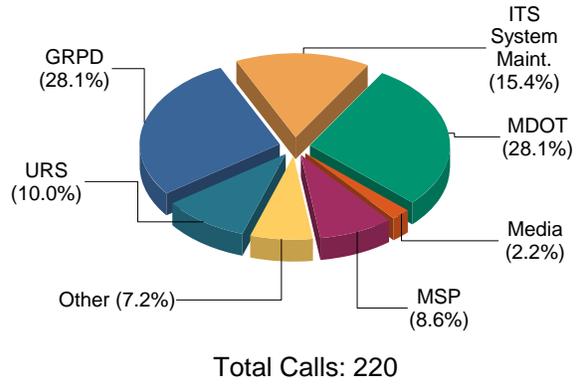
**CCTV: 95%**  
**MVDS: 75%**  
**DMS: 99%**  
**VSS: 96%**

## Calls and E-mails by Type

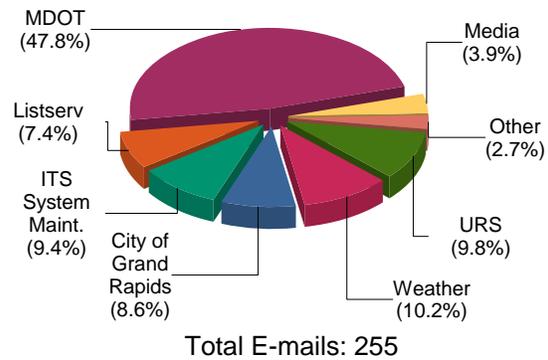


Agency	Calls			E-mails		
	In	Out	Total	In	Out	Total
City of Grand Rapids	0	0	0	22	0	22
Grand Rapids Police Department	7	55	62	0	0	0
ITS System Maintenance	13	21	34	14	10	24
Kent County Road Commission	6	1	7	0	0	0
Kent County Sheriff	0	0	0	0	0	0
Listserv	0	0	0	0	19	19
MDOT, Construction	16	17	33	9	0	9
MDOT, Maintenance	6	12	18	0	0	0
MDOT, Other	4	3	7	73	0	73
MDOT, Traffic/ITS	2	2	4	33	7	40
Media	4	1	5	5	5	10
Michigan State Police	6	13	19	0	0	0
Other	4	5	9	7	0	7
URS Corporation	13	9	22	13	12	25
Weather	0	0	0	25	1	26
<b>Month Total</b>	<b>81</b>	<b>139</b>	<b>220</b>	<b>201</b>	<b>54</b>	<b>255</b>

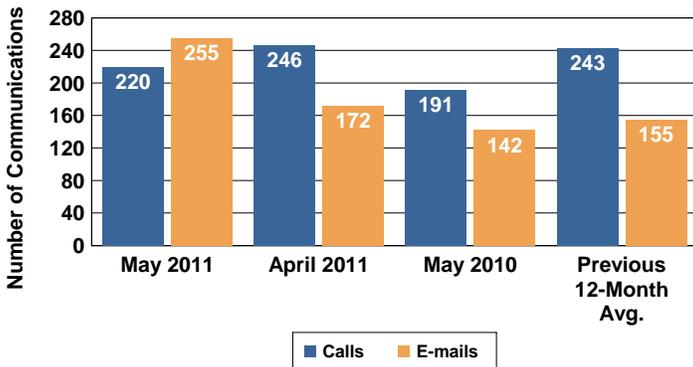
## Calls by Type



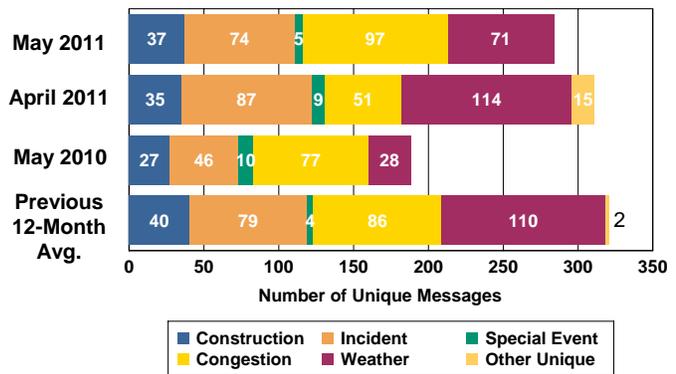
## E-mails by Type



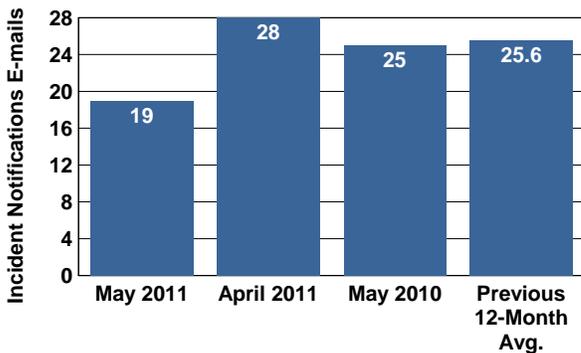
## Communication History



## DMS and VSS Messages by Type



## Incident Notification\* History

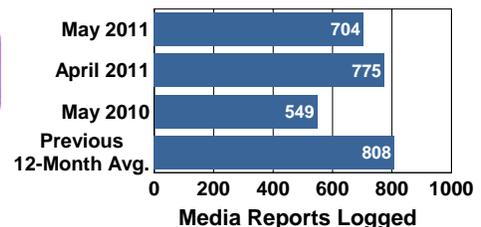


## Incident Notification\* Communication Accuracy



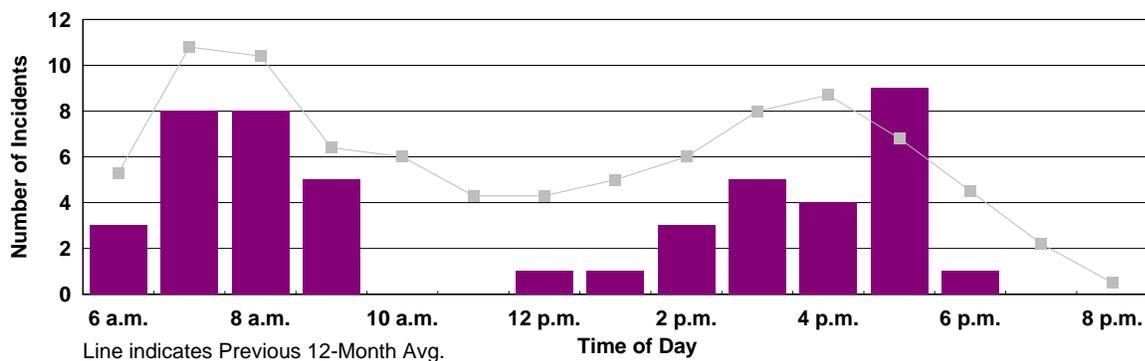
	May 2011	April 2011	May 2010	Previous 12 Months
Format Correct	94.7%	100.0%	100.0%	100.0%
Content Correct	89.5%	96.4%	96.0%	95.4%

## Media Audits

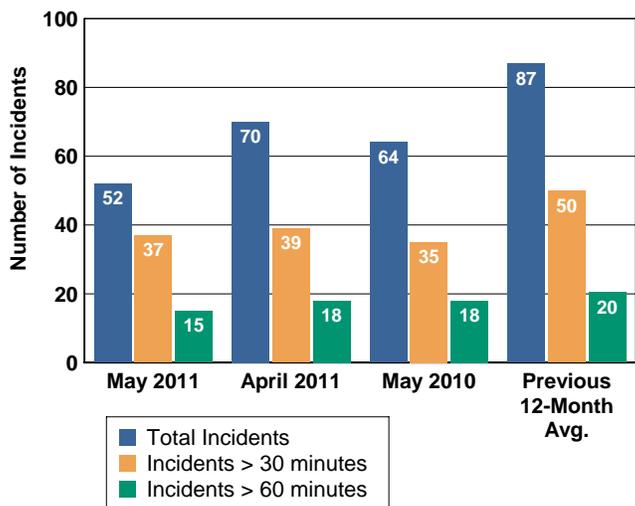


\* Incident Notification e-mails are issued for high-impact incidents with an expected duration of 15 minutes or greater. To subscribe to this list, please send an e-mail to [MDOT-GR-TRAFFOPS@michigan.gov](mailto:MDOT-GR-TRAFFOPS@michigan.gov).

## Total of Unplanned Incidents per Weekday Hour

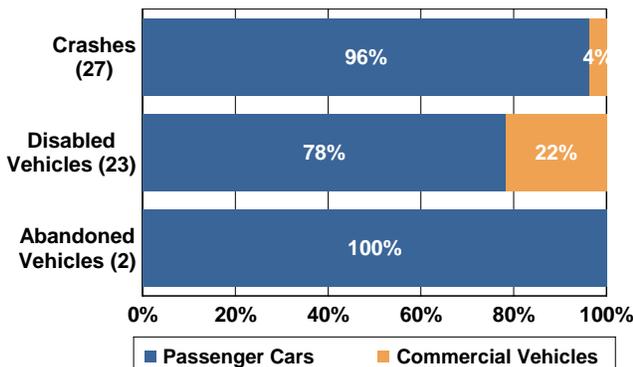


## Incident Duration History\*



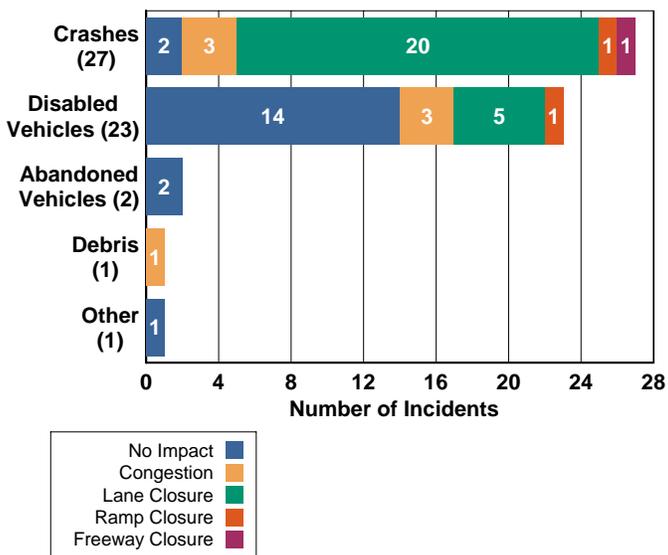
\*Incident Duration History excludes abandoned vehicles.

## Vehicle Composition of Incidents\*



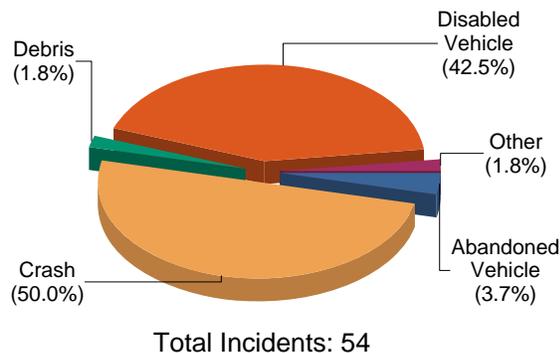
\*Vehicle Composition of Incidents excludes incidents where vehicle types were not identified.

## Traffic Impacts by Type\*



\* Traffic Impacts by Type may include incidents outside of the current WMTOC camera coverage area.

## Incident Managed by Type\*



Total Incidents: 54

\* Incidents Managed by Type may include incidents outside of the current WMTOC camera coverage area.

## Most Utilized DMS\*

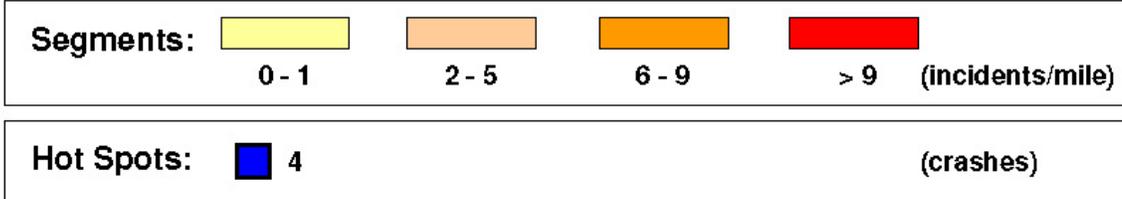
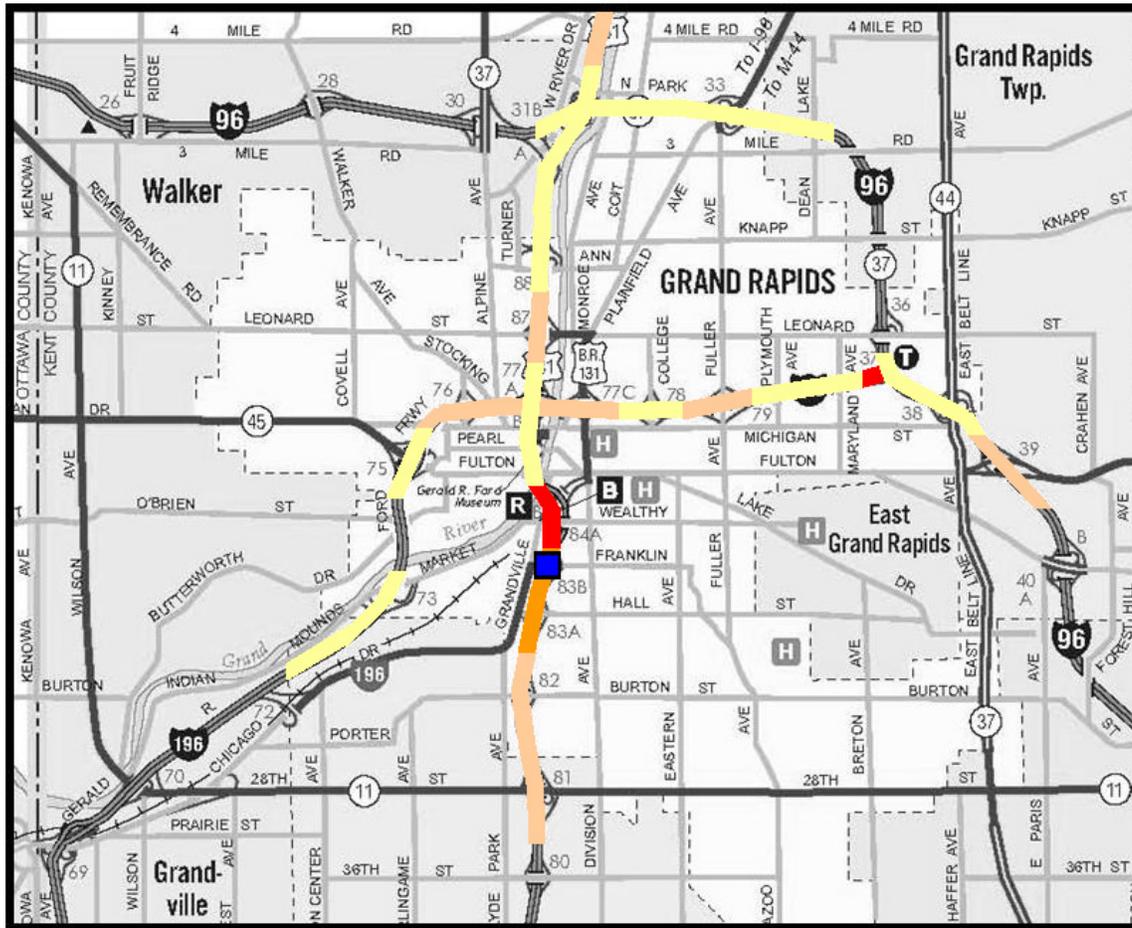


1. US-131 NB @ 28th St. (51)
2. US-131 NB @ 36th St. (36)
3. US-131 SB @ Pearl St. (27)

\*Number of unique event messages.



# Incident Density and Hot Spots Map



Incident Management



## High-impact Unplanned Incident Activity\*



Incident Impact	May 2011	April 2011	May 2010	Previous 12-Month Avg.
Lane Closure	25	39	16	31.5
Ramp Closure	2	3	7	3.7
Freeway Closure	1	1	3	2.2

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

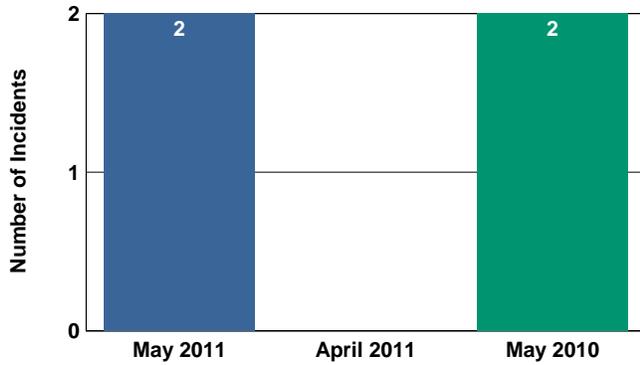
## Unplanned Incidents by Roadway



Freeway	May 2011		April 2011		May 2010		Previous 12-Month Avg.	
	Total	per mi.	Total	per mi.	Total	per mi.	Total	per mi.
I-96 (4.5 mi.)*	4	0.9	8	1.8	15	3.3	13.8	3.1
I-196 (8.5 mi.)*	10	1.2	15	1.8	7	0.8	18.6	2.2
US-131 (11 mi.)*	34	3.1	44	4.0	52	4.7	65.8	6.0
<b>Month Total</b>	<b>48</b>	<b>2.0</b>	<b>67</b>	<b>2.8</b>	<b>74</b>	<b>3.1</b>	<b>98.2</b>	<b>4.1</b>

\* Reflects roadway mileage within the current WMTOC camera coverage area.

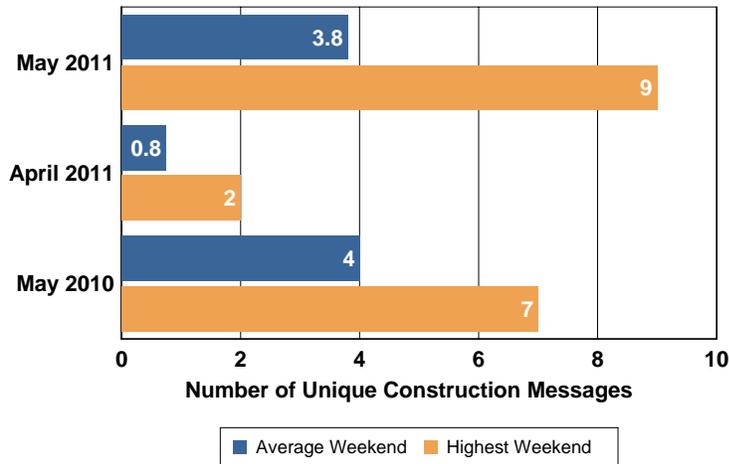
## Incidents Occurring in Work Zones



### Work Zone Incident Details:

During the month of May, there were two incidents identified by operators as being within work zones. On May 5, a multi-vehicle crash occurred on eastbound I-96 at Cascade Road within the "I-96 over M-11 Bridge Rehabilitation" work zone, resulting in a one-and-a-half hour freeway closure followed by a one-and-a-half hour right-lane closure. On May 10, a multi-vehicle crash occurred on eastbound I-96 at Fuller Avenue within the "Fuller Avenue Bridge" work zone, resulting in a half-hour right-lane closure.

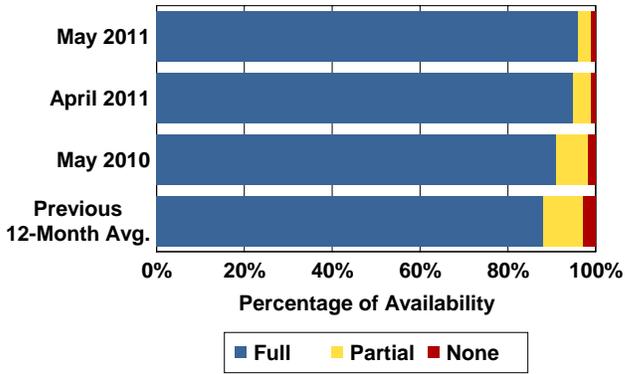
## Weekend\* Construction DMS Message Activity



\* Friday, Saturday and Sunday.



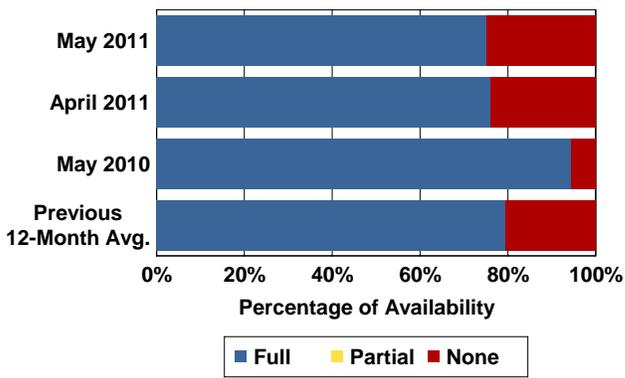
## Overall CCTV Camera Availability



## Individual CCTV Camera Availability

CCTV Cameras Below 95% Availability			
Location	Full	Partial	None
1. I-96 Conn. to US-131	19%	79%	2%
2. I-96 @ I-196	89%	-	11%

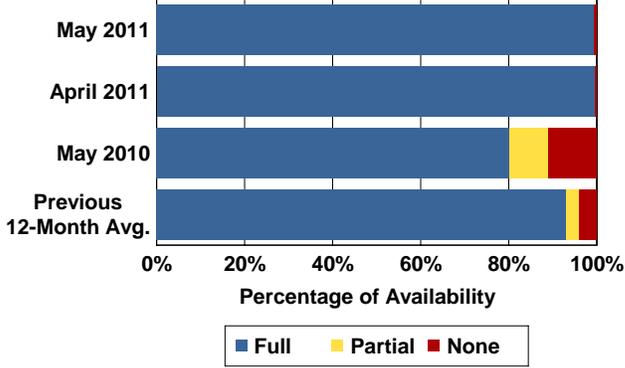
## Overall Detector Availability



## Individual Detector Availability

Vehicle Detectors Below 95% Availability			
Location	Full	Partial	None
1. 114N - I-196 @ Monroe	-	-	100%
2. 114S - I-196 @ Ottawa	-	-	100%
3. 119 -	-	-	100%
4. 125 - I-96 @ E. Beltline	-	-	100%
5. 201 - US-131 S of 36th	-	-	100%
6. 204 - US-131 S of 28th	-	-	100%
7. 205 - US-131 N of 28th	-	-	100%
8. 220 - I-196 W to US-131 N	-	-	100%
9. 224 - US-131 @ Ann	-	-	100%
10. 229 - US-131 S to I-96 E	-	-	100%
11. 227 - US-131 @ I-96	36%	-	64%

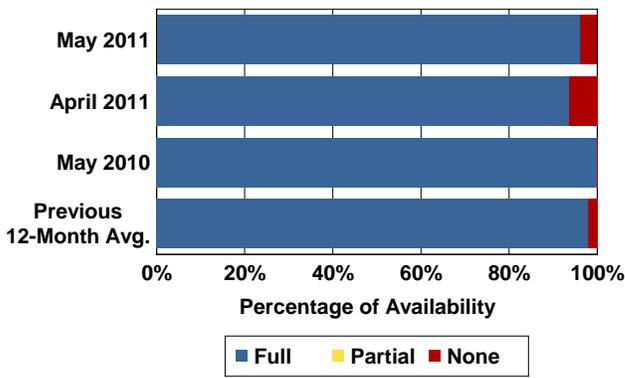
## Overall DMS Availability



## Individual DMS Availability

DMS Below 95% Availability			
Location	Full	Partial	None
None.			

## Overall VSS Availability



## Individual VSS Availability

VSS Below 95% Availability			
Location	Full	Partial	None
1. Market SB Speed Limit	86%	-	14%



# Grand Rapids Area Construction Map - June 2011



\*Includes construction projects on or near freeways and state trunklines.

**MDOT**

- Fuller Ave over I-196 bridge replacement
- Closures on Fuller Ave and I-196
- DMS used: EB I-196 @ Chicago Dr, WB I-96 @ Fulton St, SB US-131 @ Ann St

**MDOT**

- M-37, I-96 to Lake Eastbrook Blvd concrete joint repairs
- Lane Closures
- DMS used: None

**MDOT**

- I-196, M-11 to Market Ave pavement resurfacing
- Nightly lane closures
- DMS used: EB I-196 @ 32nd Ave, WB I-196 @ Plymouth Ave, SB US-131 @ Ann St

**MDOT**

- Cascade Rd on-ramp to WB I-96 reconstruction
- Total closure
- DMS used: None

**City of Kentwood**

- Forest Hill Ave, Burton St to Cascade Rd reconstruction
- Total closure
- DMS used: None

**MDOT**

- Hall St over US-131 bridge replacement
- Lane closures on US-131
- DMS used: NB US-131 @ 28th St, NB US-131 @ 36th St, SB US-131 @ Pearl St, SB US-131 @ Ann St

**MDOT**

- 36th St over US-131 bridge replacement
- Lane closures on US-131
- DMS used: NB US-131 @ 84th St, SB US-131 @ Hall St

**MDOT**

- I-96 over 28th St bridge replacement
- Intermittent lane closures on I-96 and 28th St
- DMS used: WB I-96 @ Quiggle St

