

West Michigan Transportation Operations Center

Serving Motorists on West Michigan Freeways

www.michigan.gov/its

www.michigan.gov/drive

Fiscal Year 2012



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West Michigan TOC Control Room
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Main: 616-451-8329
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In the Spotlight

A multi-agency Intelligent Transportation System expansion project was recently completed in the Grand Rapids area and Fiscal Year (FY) 2012 marked the first full year that WMTOC operators had use of the devices that were constructed. The project included 31 traffic surveillance cameras, which more than doubled the miles of roadway visible to WMTOC operators, and 6 dynamic message signs and 71 vehicle detector sites.

The expanded camera coverage area has allowed operators to detect and assist first responders with more incidents during FY 2012, such that additional peak-period control room staffing was implemented to adequately support the increased number of incidents. The expanded coverage area also introduced the WMTOC and its capabilities to new stakeholders in FY 2012 that were not previously in the WMTOC coverage area, and new working relationships with agencies in the Grand Rapids metro area have grown in FY 2012 to the benefit of all agencies. The additional camera coverage includes portions of M-11 (28th Street) and M-37 (Alpine and East Beltline avenues), which allows operators to monitor the crucial trunklines and provide coverage of emergency management routes when the trunklines are needed to support diverted freeway traffic.



WMTOC Control Room

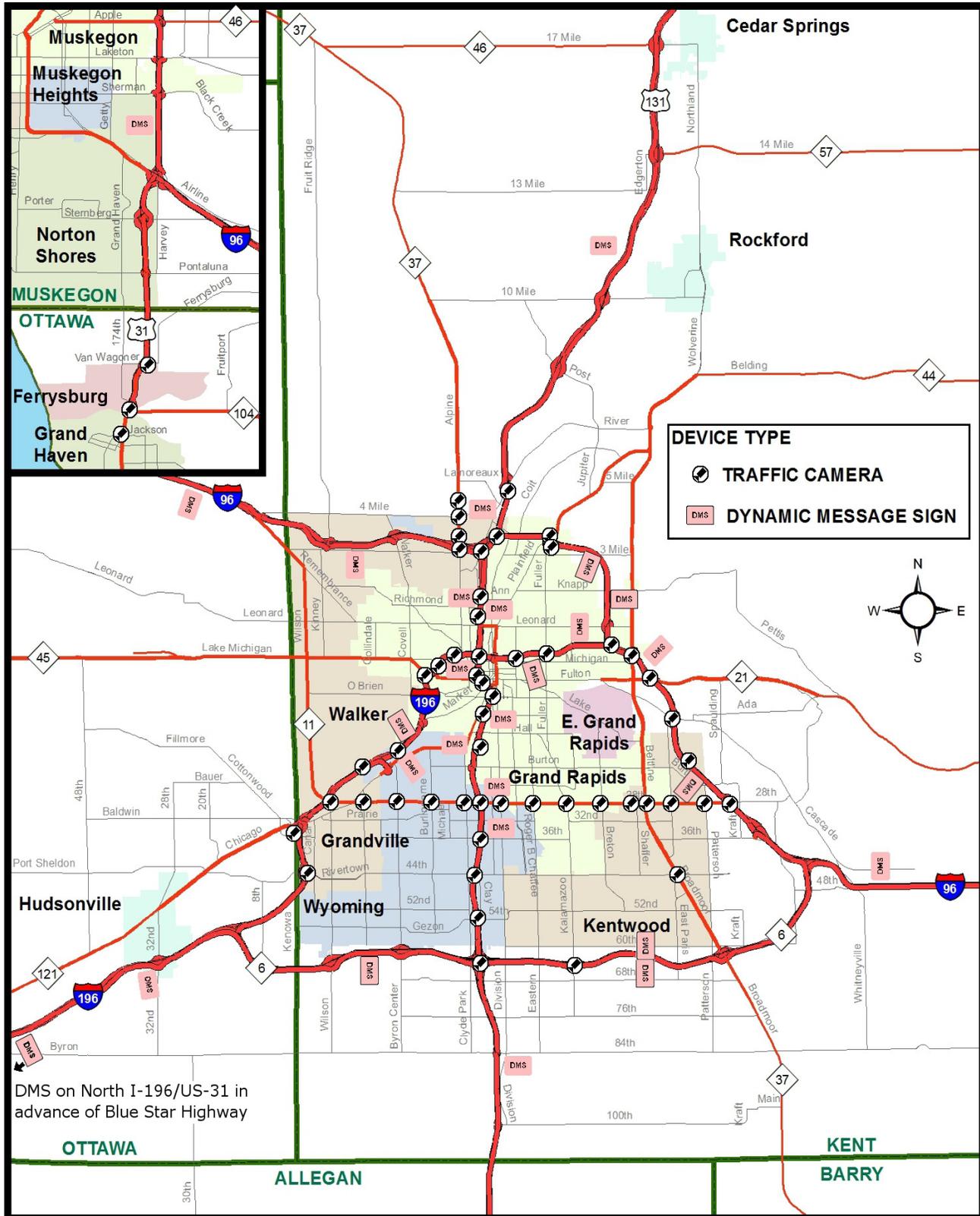
Hours of Operation

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

Control Room Contact Information

E-mail: MDOT-GR-TRAFFOPS@michigan.gov
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ITS Device Locations and Coverage Area



Summary

Data Key

FY 2012

Communications Activity



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

Total Communication

Calls: 3,282
Emails: 3,074

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 99.0%
Content Correct 96.3%

Unplanned Incidents



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

Total Incidents

1,232

Construction Activity



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

Incidents Occurring in Construction Zones

62

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: 76%
DMS: 95%
VSS: 99%

***Incidents** include, but are not limited to, vehicle crashes, abandoned or disabled vehicles, and debris in the roadway.

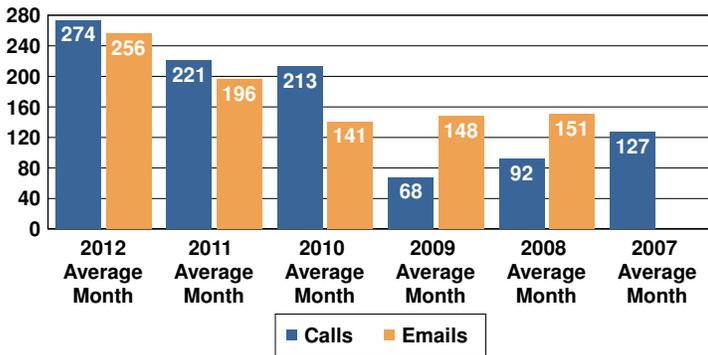
Note: Data included in this report is from MDOT FY 2012 (Oct. 1, 2011, through Sept. 30, 2012)

Communications by Agency



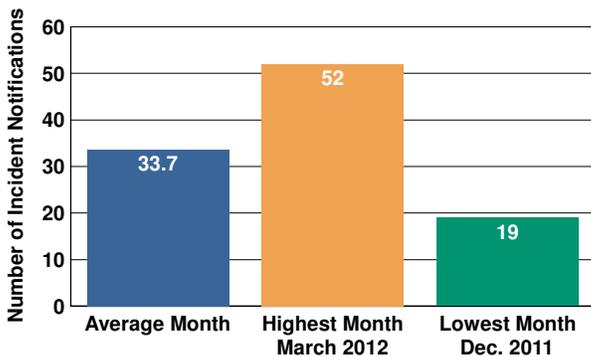
Agency	Calls			E-mails		
	In	Out	Total	In	Out	Total
City of Grand Rapids	0	1	1	202	0	202
Grand Rapids Police Department	41	770	811	0	0	0
ITS System Maintenance	102	104	206	216	20	236
Kent County Road Commission	56	82	138	0	0	0
Kent County Sheriff	3	12	15	0	0	0
Listserv (Traffic Notifications)	0	0	0	609	404	1,013
MDOT, Construction	58	30	88	341	11	352
MDOT, Maintenance	82	129	211	4	2	6
MDOT, Other	29	16	45	72	30	102
MDOT, Traffic/ITS	67	525	592	234	50	284
Media	70	22	92	24	12	36
Michigan State Police	42	204	246	8	0	8
Other	350	164	514	310	29	339
URS Corporation	190	133	323	62	43	105
Weather	0	0	0	391	0	391
Annual Total	1,090	2,192	3,282	2,473	601	3,074

Annual Average Communication History



*E-mail data not available for FY 2007.

Incident Notification* History



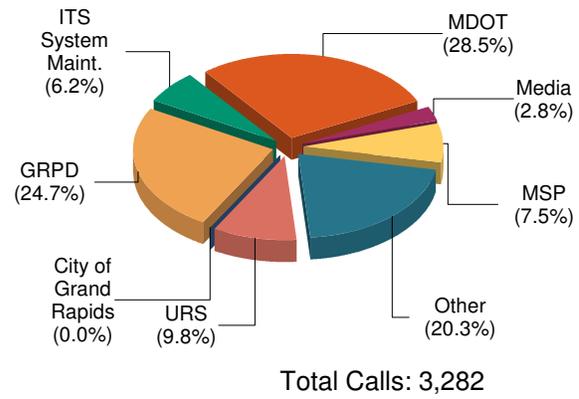
Incident Notification* Communication Accuracy



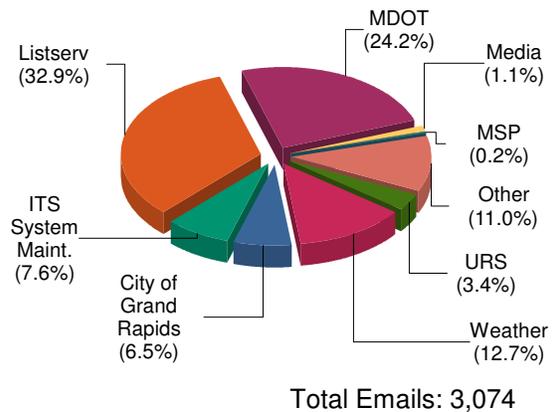
	FY 2012 Average	FY 2011 Average
Format Correct	99.0%	98.1%
Content Correct	96.3%	96.1%

*Incident Notification e-mails are issued for high-impact incidents with an expected duration of 15 minutes or longer. To subscribe to this list, please visit the MDOT listserv at: <http://1.usa.gov/qZuHo>.

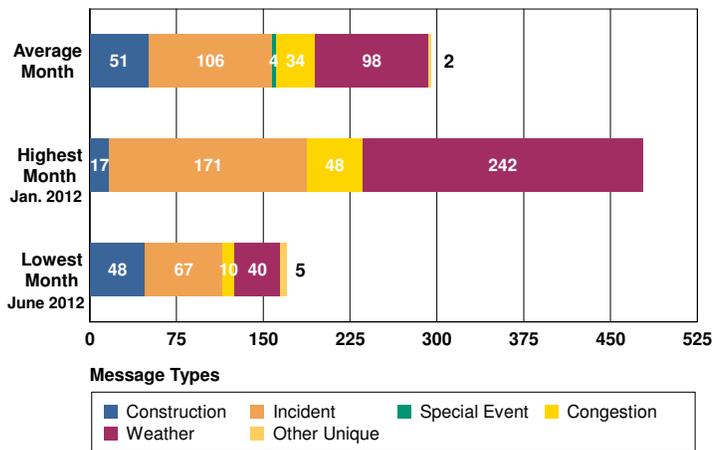
Calls by Type



E-mails by Type



DMS and VSS Messages by Type

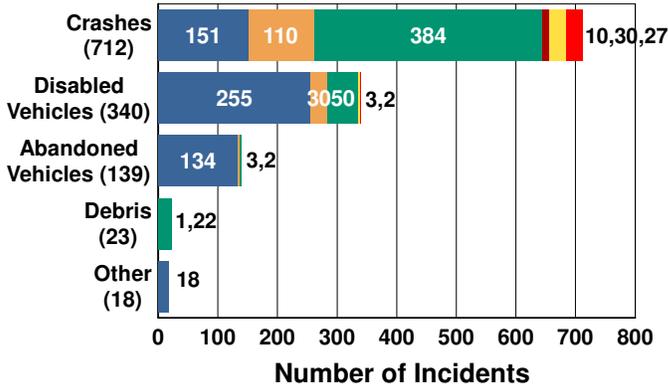


Secondary Crashes

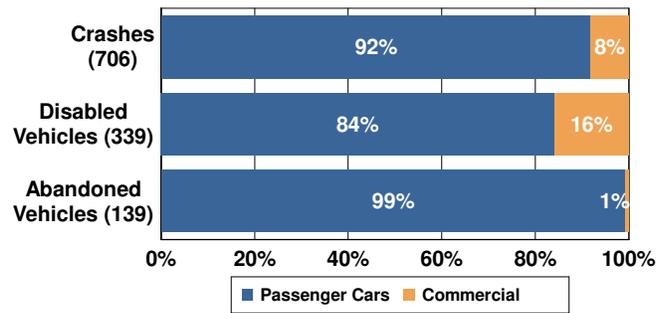


Secondary Crashes/ Percentage of Total	Total Crashes
51 (7%)	712

Traffic Impacts by Type

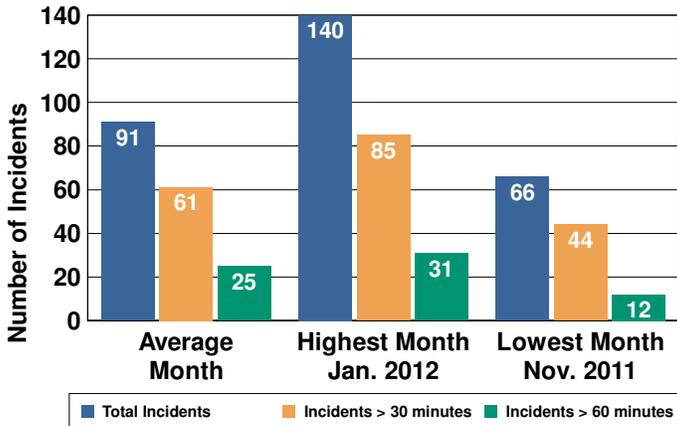


Vehicle Composition of Incidents*



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

Incident Clearance Details*

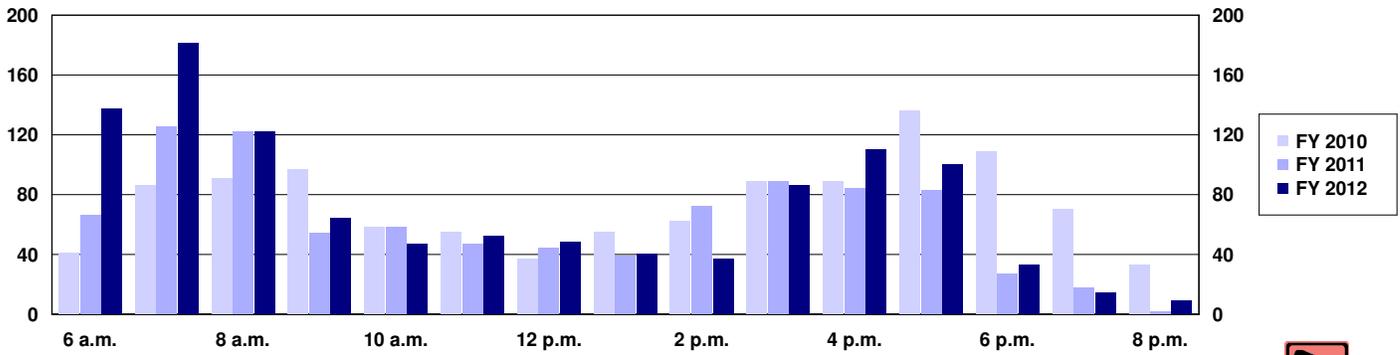


* Incident Clearance Details excludes abandoned vehicles.

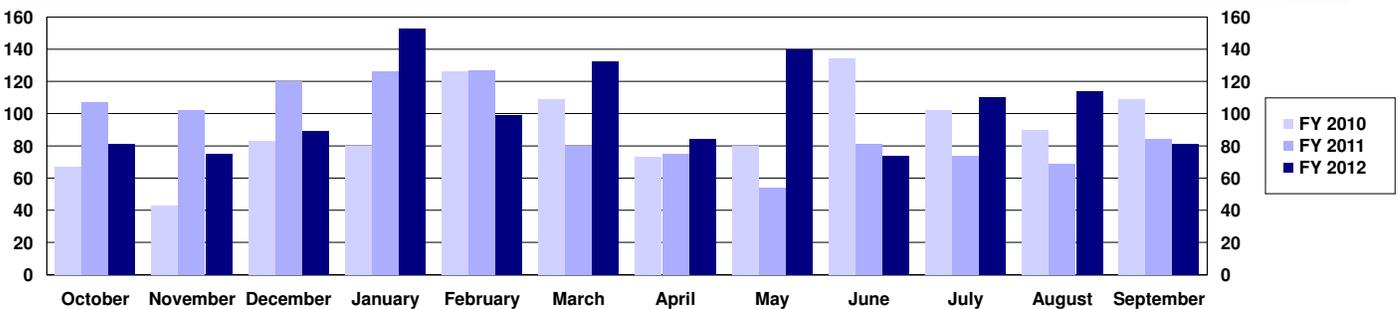
Incident/Roadway Average Clearance Times



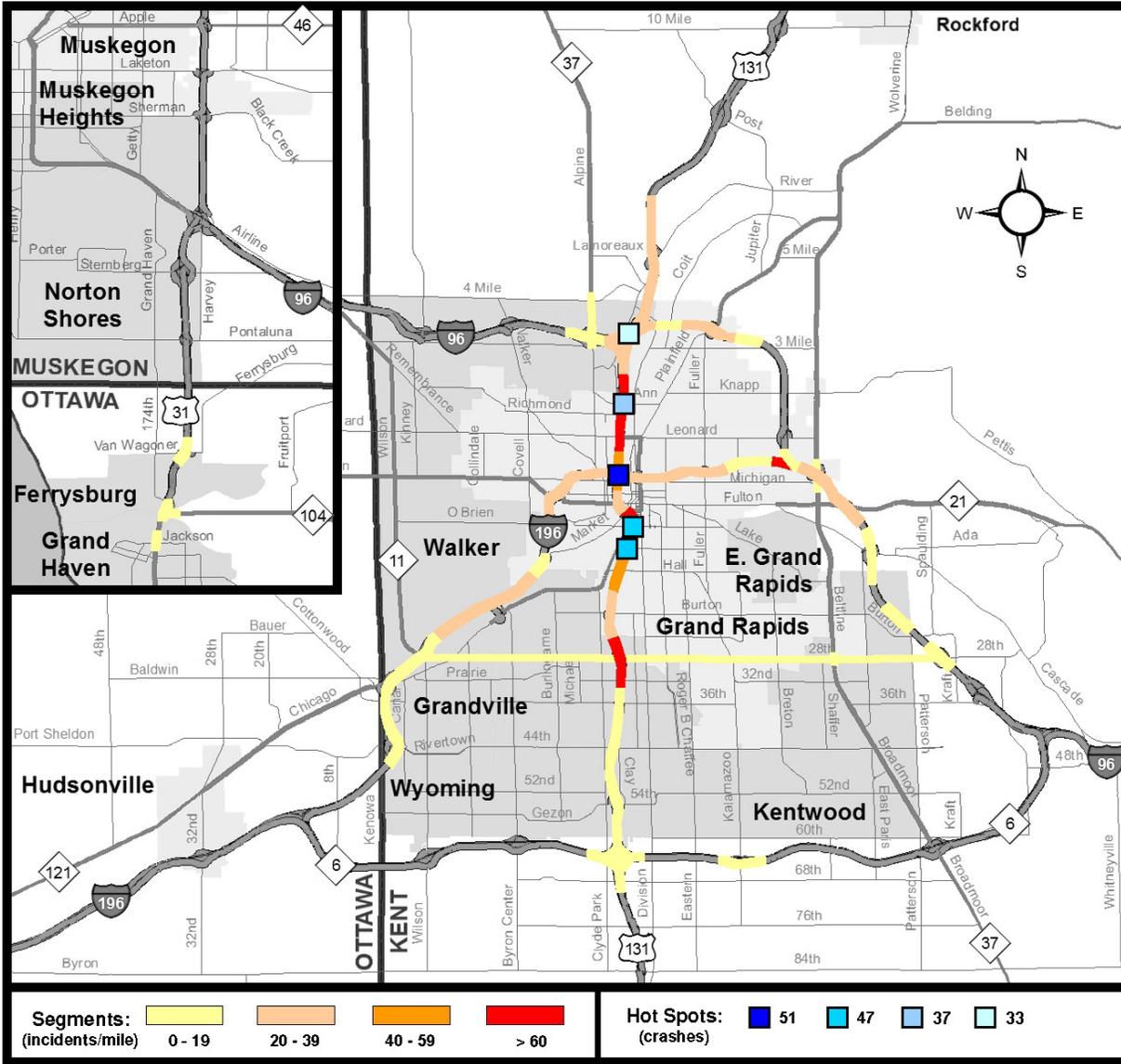
Total Unplanned Incidents per Weekday Hour



Total Unplanned Incidents per Month



Incident Density and Hot Spots Map



Incident Management



High-impact Unplanned Incident Activity*



Incident	FY 2012			FY 2011		
	Average Month	Highest Month May 2012	Lowest Month June 2012	Average Month	Highest Month Jan. 2011	Lowest Month Dec. 2010
Lane Closure	38.3	52	28	34.8	52	22
Ramp Closure	2.8	4	1	3.1	6	3
Freeway Closure	2.4	7	1	1.9	7	2

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

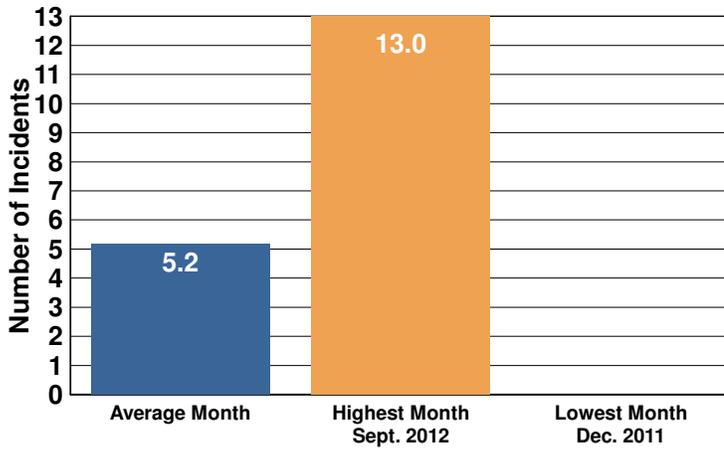
Unplanned Incidents by Roadway



Freeway	FY 2012						FY 2011					
	Average Month		Highest Month Jan. 2012		Lowest Month Nov. 2011		Average Month		Highest Month Jan. 2011		Lowest Month May 2011	
	Total	per mi.	Total	per mi.	Total	per mi.	Total	per mi.	Total	per mi.	Total	per mi.
I-96 (10.6 mi.)	15	1.4	24	2.3	7	0.7	11	1.0	19	1.8	5	0.5
I-196 (12.1 mi.)	23	1.9	35	2.9	16	1.3	23	1.9	33	2.7	11	0.9
US-131 (15.2 mi.)	54	3.5	86	5.7	45	3.0	56	3.7	72	4.7	37	2.4
Total	91	2.4	145	3.8	68	1.8	89	2.4	124	3.3	53	1.4

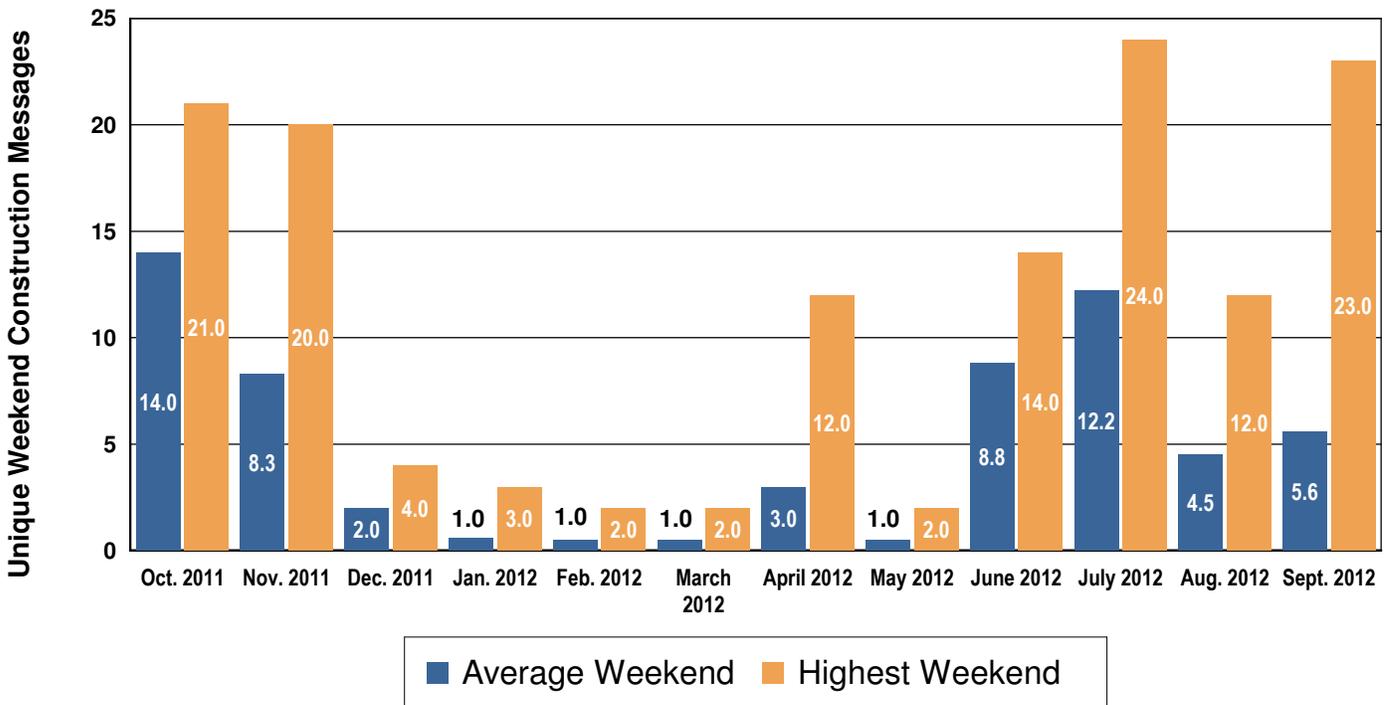
* Reflects roadway mileage within the current WMTOC camera coverage area.

Incidents Occurring in Work Zones



Highest Month Work Zone Incident Details:
 During the month of September, 13 incidents were identified by operators as being within work zones. Nine crashes, two disabled vehicles, and one abandoned vehicle occurred on northbound US-131 within the short-term northbound US-131-to-westbound I-96 freeway ramp maintenance work zone. One crash occurred on westbound I-96 at Bristol Avenue within a short-term maintenance work zone for pavement repairs.

Weekend* Construction DMS Message Activity

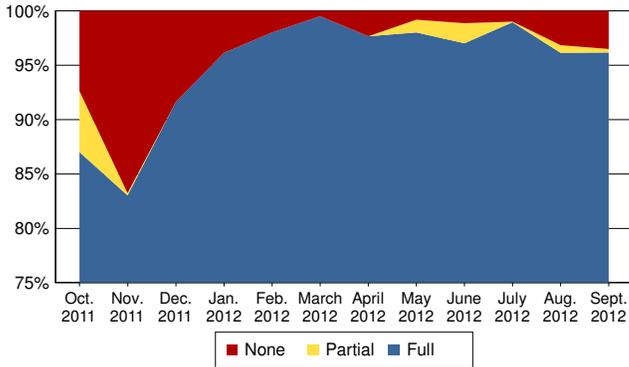


* Friday, Saturday and Sunday.

Construction Activity



Overall CCTV Camera Availability

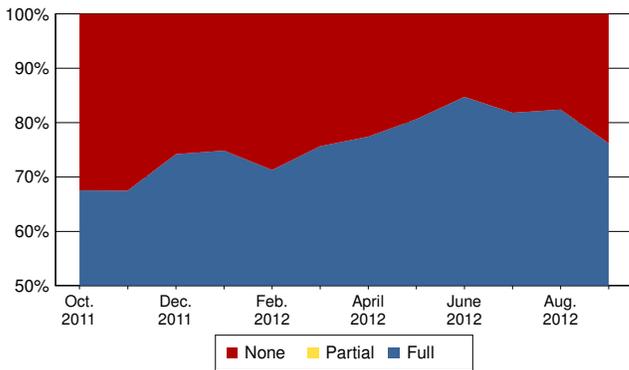


Individual CCTV Camera Availability



CCTV Cameras Below 98% Availability			
Location	Full	Partial	None
1. I-96 @ E. Beltline Ave.	61%	-	39%
2. I-96 EB @ Plainfield Ave.	79%	8%	13%
3. I-96 Conn. to US-131	80%	9%	11%
4. US-131 @ Wealthy St.	83%	-	17%
5. I-96 @ M-21 (Fulton St.)	83%	-	17%
6. US-131 @ 44th St.	85%	-	15%
7. I-96 WB @ Plainfield Ave.	88%	-	12%
8. I-96 @ Cascade Rd.	96%	-	4%
9. US-31 @ M-104	96%	4%	-
10. I-196 @ M-11 (28th St.)	98%	2%	-

Overall MVDS Availability

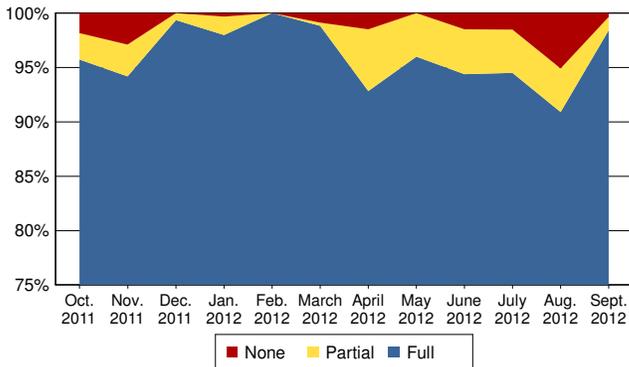


Individual Detector Availability



MVDS Below 90% Availability			
Location	Full	Partial	None
1. 201 - US-131 NB S of 36th	-	-	100%
2. 114N - I-196 WB @ Monroe	-	-	100%
3. 227 - US-131 NB @ I-96 WB	-	-	100%
4. 204 - US-131 NB S of 28th	-	-	100%
5. 114S - I-196 EB @ Ottawa	-	-	100%
6. 226 - US-131 SB @ I-96 WB	23%	-	77%
7. 124 - I-196 EB @ I-96 Merge	37%	-	63%
8. 125 - I-96 EB @ E. Beltline	47%	-	53%
9. 102 - I-196 @ Market	54%	-	46%
10. 220 - I-196 @ US-131	57%	-	43%
11. 229 - US-131 @ I-96	57%	-	43%
12. 127 - I-96 E of E. Beltline	65%	-	35%
13. 122 - I-196 @ Maryland	66%	-	34%
14. 126 - I-96 W of E. Beltline	74%	-	26%
15. 230W - I-96 @ US-131	80%	-	20%
16. 231 - US-131 N of I-96	80%	-	20%
17. 119 -	81%	-	19%

Overall DMS Availability

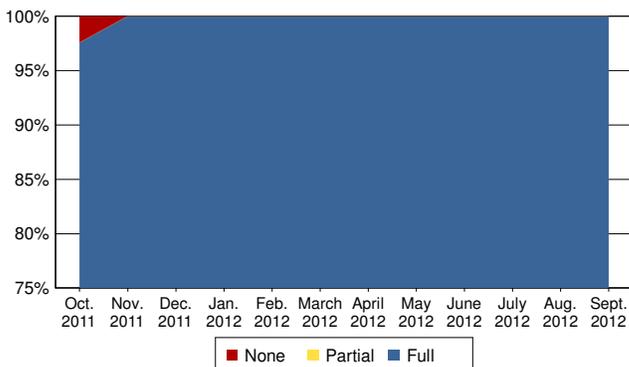


Individual DMS Availability



DMS Below 98% Availability			
Location	Full	Partial	None
1. I-196 WB @ Plymouth Ave.	62%	38%	-
2. US-131 SB @ Pearl St.	89%	11%	-
3. I-96 EB @ Forest Hill Ave.	90%	-	10%
4. I-196 EB @ Eastern Ave.	91%	-	9%
5. I-96 EB @ Dean Lake Ave.	92%	8%	-
6. I-96 WB @ Knapp St.	92%	1%	7%
7. M-6 EB @ Ivanrest Ave.	94%	-	6%
8. US-131 NB @ 36th St.	94%	4%	2%
9. US-131 NB @ Franklin St.	95%	-	5%
10. I-196 WB @ Chicago Dr. Cor	96%	1%	3%
11. US-131 NB @ M-11 (28th St.)	97%	2%	1%

Overall VSS Availability



Individual VSS Availability



VSS Below 98% Availability			
Location	Full	Partial	None
0.			

Equipment
Maintenance

