

West Michigan TMC

February 2007

Serving the Grand Rapids Area Freeways



Suzette Peplinski, PE
Michigan Department of Transportation
1420 Front Avenue NW
Grand Rapids, MI 49504
PeplinskiS@Michigan.gov

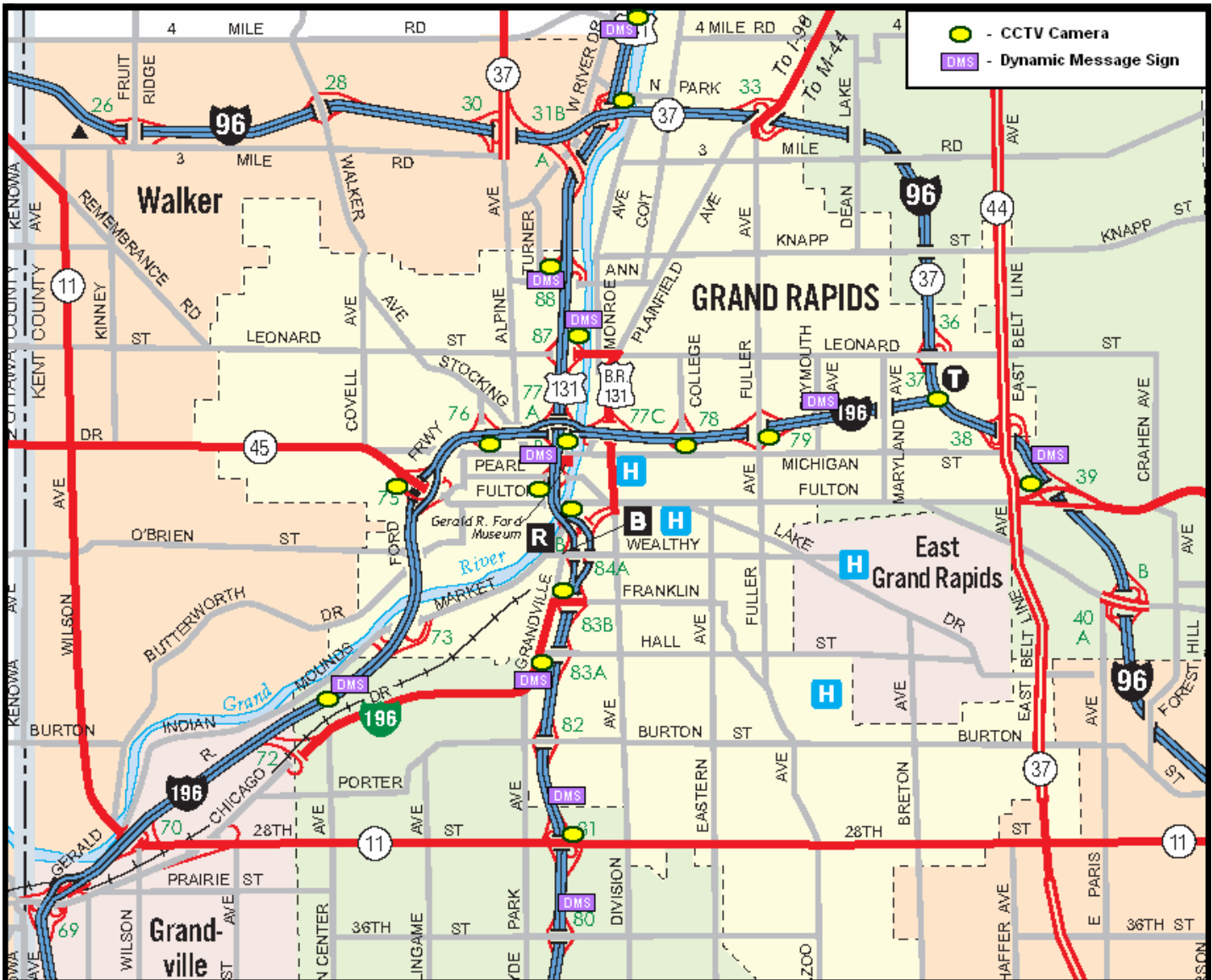
Control Room Coverage

Control Room Hours of Operation

Day	Time Period	Time of Day
Mondays – Thursdays	All	6:00 a.m. to 8:00 p.m.
Fridays	May through Labor Day	6:30 a.m. to 9:00 p.m.
Sundays	May through Labor Day	5:00 p.m. to 8:00 p.m.
Fridays	Labor Day through April	6:30 a.m. to 8:00 p.m.
Sundays	Labor Day through April	None
Special Events	All	As needed
Holidays	New Years Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, and Christmas Day.	None

The following report is limited to data collected during the hours of operation for the control room and within the ITS device coverage area.

ITS Device Locations and Coverage Area



West Michigan TMC

February 2007

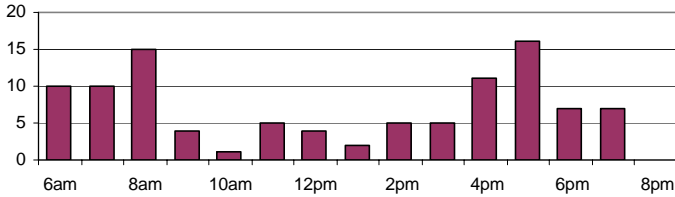
Serving the Grand Rapids Area Freeways



Suzette Peplinski, PE
Michigan Department of Transportation
1420 Front Avenue NW
Grand Rapids, MI 49504
PeplinskiS@Michigan.gov

Control Room Support Activity

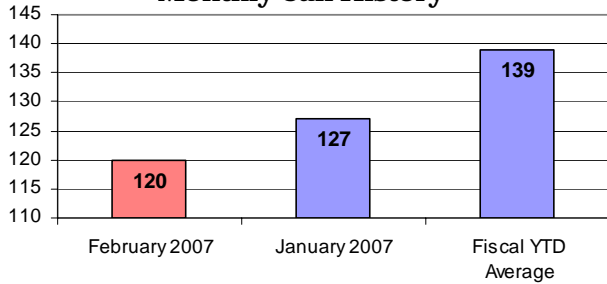
Month Total of Unplanned Incidents per Weekday Hour



Monthly High Impact Unplanned Incident Activity

Incident	Feb 2007	Jan 2007	Fiscal YTD Average
Lane Closures	7	3	8
Ramp Closures	-	1	1
Freeway Closures	-	1	0

Monthly Call History



Total Monthly Unplanned Incidents by Roadway

Freeway	Feb 2007		Jan 2007		Fiscal YTD Average	
	Total	per mi.	Total	per mi.	Total	per mi.
I-96 (4.5 mi.)*	5	1.1	5	1.1	5	1.0
I-196 (8.5 mi.)*	30	3.5	31	3.6	28	3.3
US-131 (11 mi.)*	67	6.1	55	5.0	63	5.7
Monthly Total	102	4.3	91	3.8	95	4.0

*Mileages reflect the portion of the roadway within the coverage area.

Calls by Type

Agency	In	Out	Total
City of Grand Rapids	2	0	2
City of Wyoming	0	5	5
Grand Rapids Police Department	5	74	79
Kent County Road Commission	1	0	1
MDOT, Construction	0	0	0
MDOT, Traffic/ITS	3	0	3
MDOT, Maintenance	0	0	0
MDOT, Other	0	0	0
Media	0	0	0
Michigan State Police	0	14	14
Sheriff, Kent Co.	0	0	0
URS Corporation	6	0	6
ITS System Maintenance	5	5	10
Other	0	0	0
Month Total	22	98	120

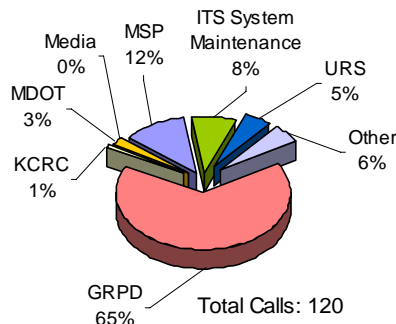
Traffic Management Center News

On Saturday, February 3rd, heavy lake-effect snows, combined with high wind gusts created white-out conditions in many areas. Two major accidents occurred along US-131 as a result of the inclement weather, with 30+ vehicles involved in each.



A new operator training/meeting plan was developed, and the first scheduled session is on March 15th.

Calls by Type



West Michigan TMC

February 2007

Serving the Grand Rapids Area Freeways

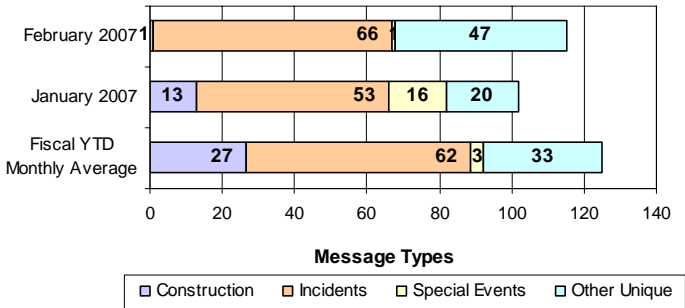


Suzette Peplinski, PE
Michigan Department of Transportation
1420 Front Avenue NW
Grand Rapids, MI 49504
PeplinskiS@michigan.gov

Traveler Information Activity

- The MDOT ITS Control Room provides traffic information to freeway users via 10 dynamic message signs (DMS) positioned in key locations along the freeway system in the greater Grand Rapids area.

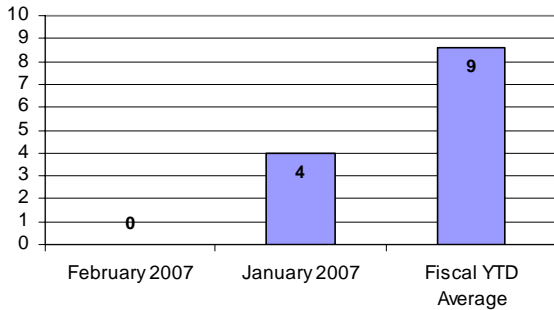
Unique DMS Messages by Type



Top Three Utilized DMS

- Northbound US-131 at 28th Street
- Westbound I-196 at Plymouth Avenue
- Northbound US-131 at 36th Street

Monthly Incident Notification History



Monthly Incident Notification Communication Accuracy

	Feb 2007	Jan 2007	Fiscal YTD Average
Format Correct	-	100.0%	86.0%
Content Correct	-	100.0%	93.0%

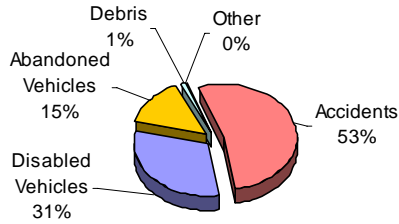
West Michigan TMC

February 2007

Serving the Grand Rapids Area Freeways

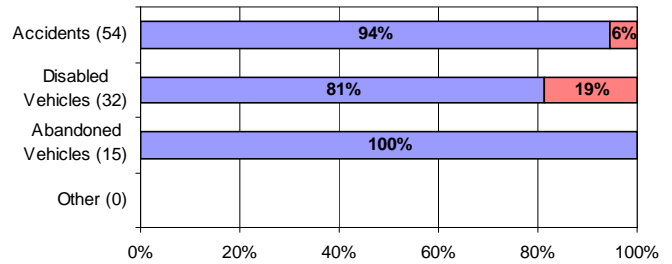
Incident Management Information

Incidents Managed by Type



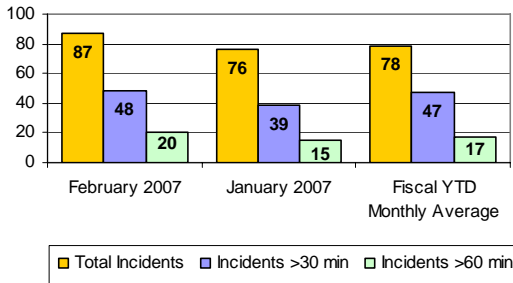
Total Incidents: 102

Vehicle Composition of Incidents



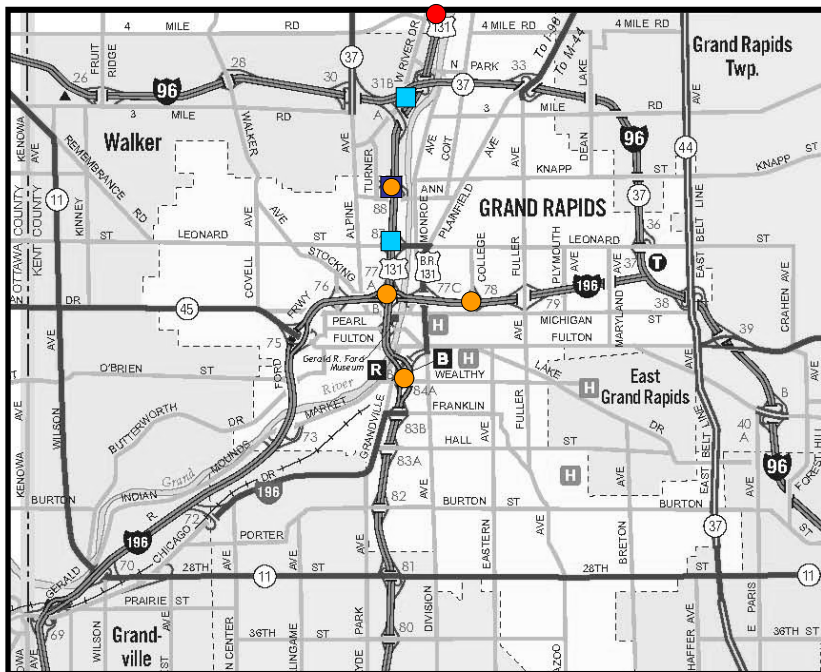
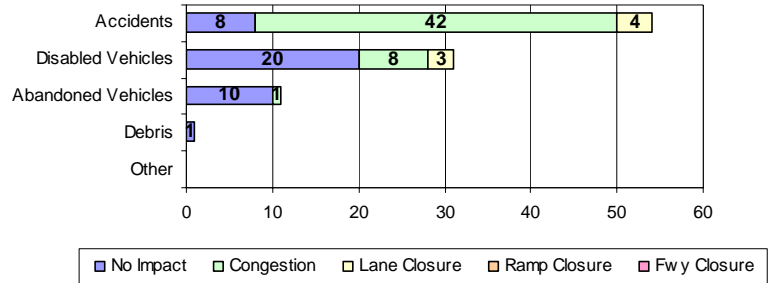
Legend: Passenger Cars (Blue), Commercial (Red)

Incident Duration History*



*Incident Duration History does not include abandoned vehicles.

Traffic Impacts by Incident Type

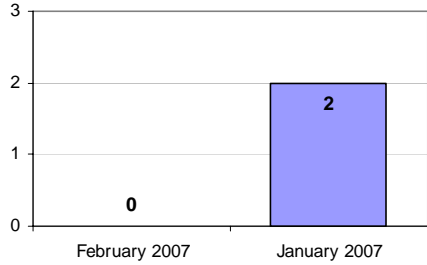


Incident Hot Spots

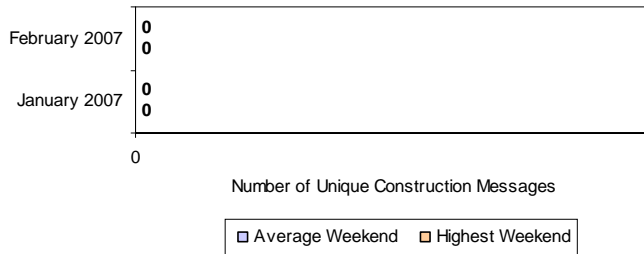
- 5 accidents
- 4 accidents
- 6 disabled vehicles
- 3 disabled vehicles

Construction Management Information

Incidents Occurring in Construction Zones



Weekend* Construction DMS Message Activity



*Friday, Saturday and Sunday.

West Michigan TMC

Serving the Grand Rapids Area Freeways

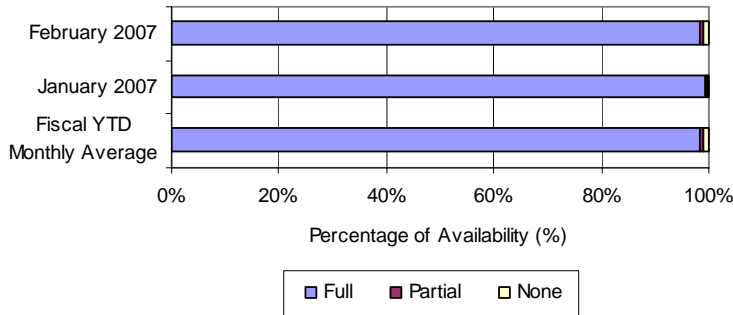


Suzette Peplinski, PE
Michigan Department of Transportation
1420 Front Avenue NW
Grand Rapids, MI 49504
PeplinskiS@Michigan.gov

February 2007

ITS Field Infrastructure Reliability

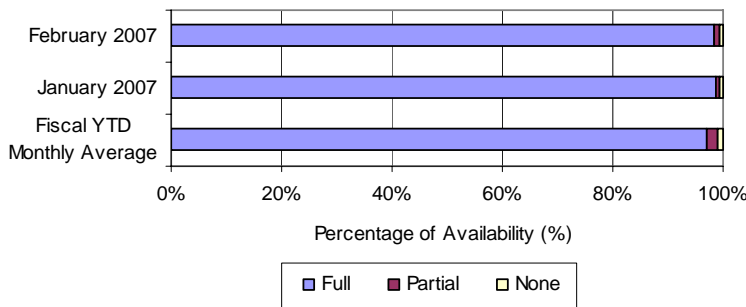
Overall Camera System Availability



Individual CCTV Camera Availability

Camera	Full	Partial	None
1 US-131 @ 28th St	100%	-	-
2 US-131 @ Franklin St	100%	-	-
3 US-131 @ Market Ave	100%	-	-
4 US-131 @ Pearl St	100%	-	-
5 US-131 @ I-196	100%	-	-
6 US-131 @ Leonard St	100%	-	-
7 US-131 @ Ann St	97%	3%	-
8 US-131 @ I-96	100%	-	-
9 US-131 @ Hall St	97%	3%	-
10 US-131 @ West River	97%	3%	-
11 I-196 @ Chicago Dr	94%	-	6%
12 I-196 @ Lake Michigan Dr	94%	-	6%
13 I-196 @ Lane Ave	94%	-	6%
14 I-196 @ College Ave	100%	-	-
15 I-196 @ Fuller Ave	97%	3%	-
16 I-96 @ I-196	100%	-	-
17 I-96 @ Fulton/M-21	100%	-	-

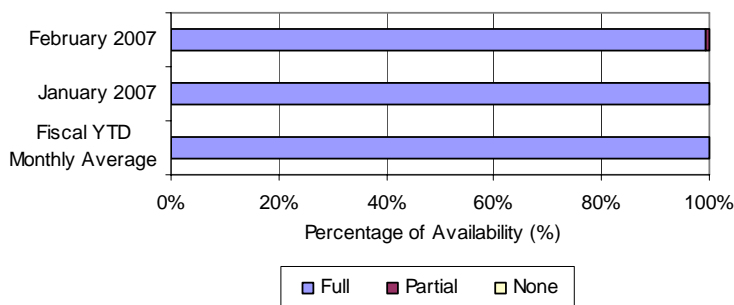
Overall DMS System Availability



Individual Dynamic Message Sign Availability

DMS	Full	Partial	None
1 WB I-96 @ Fulton/M-21	100%	-	-
2 WB I-196 @ Chicago Dr	94%	-	6%
3 EB I-196 @ Plymouth	100%	-	-
4 SB US-131 @ West River	100%	-	-
5 SB US-131 @ Ann	100%	-	-
6 NB US-131 @ Leonard	100%	-	-
7 SB US-131 @ Pearl	100%	-	-
8 SB US-131 @ Hall	97%	3%	-
9 NB US-131 @ 36th St	94%	6%	-
10 NB US-131 @ 28th St	97%	3%	-

Overall VSS System Availability



Individual Variable Speed Sign Availability

VSS	Full	Partial	None
1 NB US-131 @ Market	100%	-	-
2 US-131 @ Franklin St	100%	-	-
3 US-131 @ Market Ave	100%	-	-
4 US-131 @ Pearl St	97%	3%	-

West Michigan TMC

February 2007

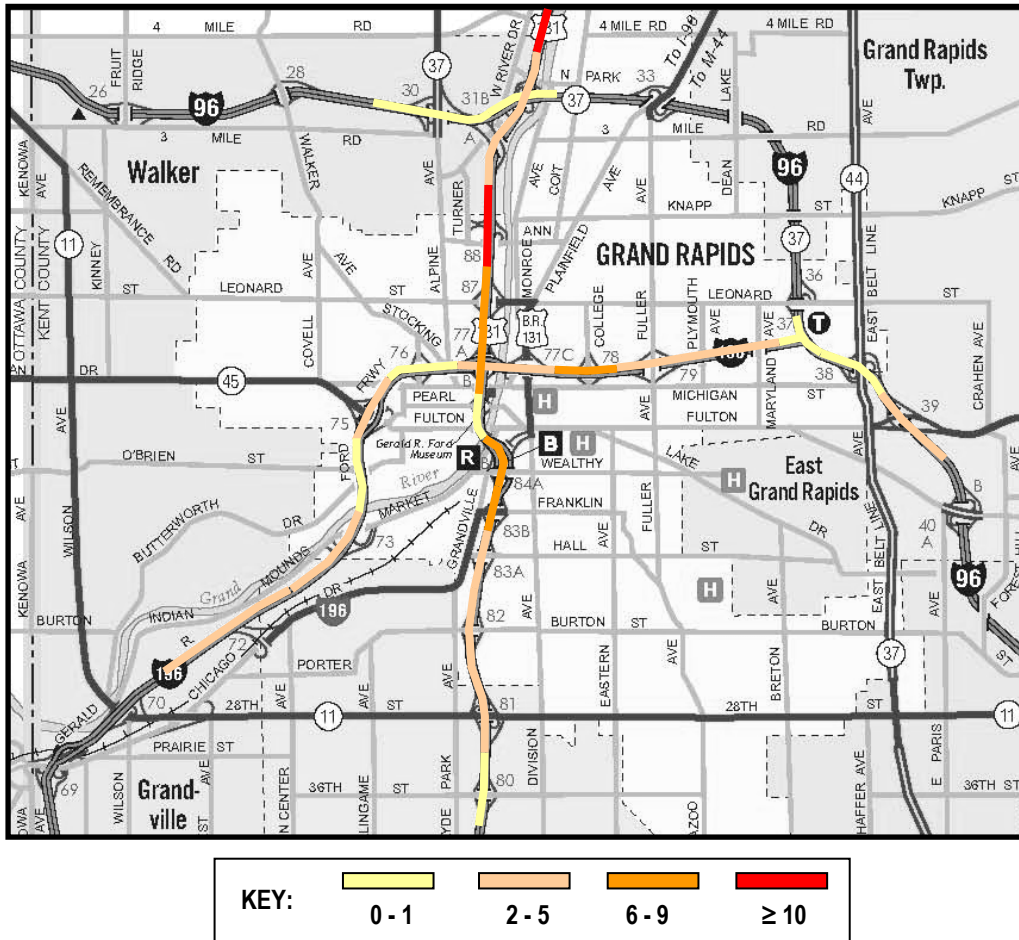
Serving the Grand Rapids Area Freeways



Suzette Peplinski, PE
Michigan Department of Transportation
1420 Front Avenue NW
Grand Rapids, MI 49504
PeplinskiS@Michigan.gov

Safety Summary

February 2007 Incidents by Freeway Segment



West Michigan TMC

February 2007

Serving the Grand Rapids Area Freeways



Suzette Peplinski, PE
Michigan Department of Transportation
1420 Front Avenue NW
Grand Rapids, MI 49504
PeplinskiS@michigan.gov

DATA KEY INFORMATION

Table	Description	Purpose	Data Source
Month Total of Unplanned Incidents per Weekday Hour	Displays the total unplanned incidents for 1-hour increments over a 24-hour period.	Provides a snapshot view of variability of incidents by time of day.	<u>Control Room Activity Log</u> Manually entered information by the operator.
Monthly High Impact Unplanned Incident Activity	Displays the number of major unplanned incidents for the current month, previous month and fiscal year-to-date monthly average.	Provides a snapshot view of the major incidents that affect the roadway and freeway interchanges along with historical data.	<u>Control Room Activity Log</u> Manually entered information by the operator.
Total Monthly Unplanned Incidents by Roadway	Displays the total unplanned incidents by freeway and the density of incidents based on freeway coverage.	Provides a snapshot view of the number of incidents per freeway per month.	<u>Control Room Activity Log</u> Manually entered information by the operator.
Monthly Call History	Displays the number of telephone calls (incoming and outgoing) for the Control Room Operators for the current month, previous month and fiscal year-to-date monthly average.	Provides a snapshot view of the control room workload in a historical context.	<u>Control Room Activity Log</u> Manually entered information by the operator.
Calls by Type (Table)	Displays the number and types of call activity for the Control Room operators, separating incoming and outgoing calls.	Provides a snapshot view of the Control Room call distribution and any apparent trends with the call volume or type.	<u>Control Room Activity Log</u> Manually entered information by the operator.
Calls by Type (Pie Chart)	Displays the percentage distribution of call activity for the Control Room operators.	Provides a snapshot view of the Control Room call distribution and any apparent trends with the call volume or type.	<u>Control Room Activity Log</u> Manually entered information by the operator.

West Michigan TMC

February 2007

Serving the Grand Rapids Area Freeways



Suzette Peplinski, PE
Michigan Department of Transportation
1420 Front Avenue NW
Grand Rapids, MI 49504
PeplinskiS@michigan.gov

DATA KEY INFORMATION

Table	Description	Purpose	Data Source
Unique DMS Messages by Type	Displays the total number of unique DMS messages by type that occurred during the month.	Provides a snapshot view of the level of effort and need related to DMS messages.	<u>Control Room Activity Log</u> Manually entered information by the operator.
Top Three Utilized DMS	Displays the top 3 DMS in terms of the number of unique messages displayed for the month.	Provides a snapshot view of the "most active" DMS for traveler information, which may indicate areas where additional DMS or other forms of traveler information may be necessary.	<u>Control Room Activity Log</u> Manually entered information by the operator.
Monthly Incident Notification History	Displays the number of email incident notifications sent out by Control Room Operators for the current month, previous month and fiscal year-to-date monthly average.	Provides a snapshot view of the control room workload in a historical context.	<u>QA/QC Log</u> Manually entered information by operations supervisor.
Monthly Incident Notification Communication Accuracy	Displays the accuracy of email incident notification messages sent out to stakeholders. Accuracy measures include format and content.	Provides a quantitative method of quality control on operator interactions with stakeholders.	<u>QA/QC Log</u> Manually entered information by operations supervisor.

West Michigan TMC

February 2007

Serving the Grand Rapids Area Freeways



Suzette Peplinski, PE
Michigan Department of Transportation
1420 Front Avenue NW
Grand Rapids, MI 49504
PeplinskiS@michigan.gov

DATA KEY INFORMATION

Table	Description	Purpose	Data Source
Incidents Managed by Type	Displays the distribution of incident types.	Provides a snapshot view of the composition of incidents.	<u>Control Room Activity Log</u> Manually entered information by the operator.
Vehicle Composition of Incidents	Displays the number of incidents that involved commercial vehicles compared to passenger cars for each incident type.	Provides a snapshot view of the incidents involving commercial vehicles.	<u>Control Room Activity Log</u> Manually entered information by the operator.
Incident Duration History	Displays the total number of incidents compared with the number of incidents with durations exceeding 30 minutes and 60 minutes. (current month, previous month and fiscal year-to-date monthly average)	Provides a snapshot view of the duration of incidents managed by the control room.	<u>Control Room Activity Log</u> Manually entered information by the operator.
Traffic Impacts by Incident Type	Displays traffic impact distributions by incident type.	Provides a snapshot view of the typical traffic impacts for each incident type.	<u>Control Room Activity Log</u> Manually entered information by the operator.
Incident Hot Spots	Displays the most frequent locations for accidents and disabled vehicles.	Provides a snapshot view of where operators should concentrate their attention.	<u>Control Room Activity Log</u> Manually entered information by the operator.

West Michigan TMC

February 2007

Serving the Grand Rapids Area Freeways



Suzette Peplinski, PE
Michigan Department of Transportation
1420 Front Avenue NW
Grand Rapids, MI 49504
PeplinskiS@michigan.gov


DATA KEY INFORMATION

Table	Description	Purpose	Data Source
Incidents Occurring in Construction Zones	Displays the number of unplanned incidents occurring in construction zones for the current and previous months.	Provides a snapshot view of the number of incidents occurring in construction zones.	<u>Control Room Activity Log</u> Manually entered information by the operator.
Weekend Construction DMS Message Activity	Displays the average and maximum number of unique construction messages posted during a full (Friday-Sunday) weekend in the current and previous months.	Provide an snapshot view of the quantity of messaging occurring during the weekend.	<u>Control Room Activity Log</u> Manually entered information by the operator.

West Michigan TMC

February 2007

Serving the Grand Rapids Area Freeways



 Michigan Department of Transportation

 Suzette Peplinski, PE

 1420 Front Avenue NW

 Grand Rapids, MI 49504

 PeplinskiS@Michigan.gov

DATA KEY INFORMATION

Table	Description	Purpose	Data Source
Overall Camera System Availability	Displays the percentage of CCTV camera availability for the current month, previous month and fiscal year-to-date monthly average.	Provides a snapshot view of system availability in relation to historical data.	<u>Daily Shift Report</u> Manually entered information by the operator.
Individual CCTV Camera Availability	Displays the percentage of time each individual CCTV camera is functioning at full, partial and zero capacity.	Provides a detailed view of ITS system availability.	<u>Daily Shift Report</u> Manually entered information by the operator.
Overall DMS System Availability	Displays the percentage of Dynamic Message Sign availability for the current month, previous month and fiscal year-to-date monthly average.	Provides a snapshot view of system availability in relation to historical data.	<u>Daily Shift Report</u> Manually entered information by the operator.
Individual Dynamic Message Sign Availability	Displays the percentage of time each individual Dynamic Message Sign is functioning at full, partial and zero capacity.	Provides a detailed view of ITS system availability.	<u>Daily Shift Report</u> Manually entered information by the operator.
Overall VSS System Availability	Displays the percentage of Variable Speed Sign availability for the current month, previous month and fiscal year-to-date monthly average.	Provides a snapshot view of system availability in relation to historical data.	<u>Daily Shift Report</u> Manually entered information by the operator.
Individual Variable Speed Sign Availability	Displays the percentage of time each individual Variable Speed Sign is functioning at full, partial and zero capacity.	Provides a detailed view of ITS system availability.	<u>Daily Shift Report</u> Manually entered information by the operator.
Incidents by Freeway Segment	Displays incident density per segment of roadway within the ITS device coverage. Red indicates a freeway with the highest incident density. Dark orange, light orange and light yellow represent decreasing levels of density, respectively.	Provides a graphic representation of incident density to assist in choosing locations for future ITS devices.	<u>Daily Shift Report</u> Manually entered information by the operator.