Southeast Michigan Transportation Operations Center

MARCH

2013

MONTHLY PERFORMANCE MEASURES

MDOT
Michigan Department of Transportation

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Report Compiled By URS

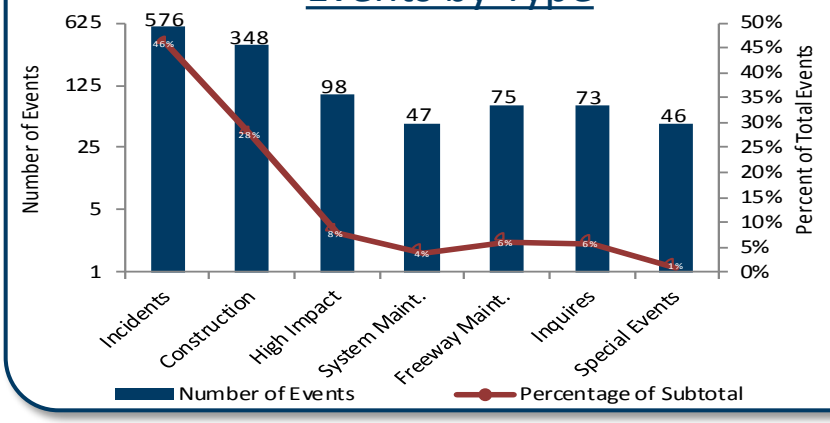
Control Room Activity

Event: A task in which the control room operator (CRO) is involved. Multiple categories of events exist (e.g., Incident, Construction, Special Event).

Call: Any phone call that comes into or goes out of the control room. Multiple calls may be associated with one event.

Incident: An event that impacts the shoulder, lane(s) or a ramp of a state of Michigan trunkline (e.g., accident, vehicle fire, debris or police situation).

Events by Type

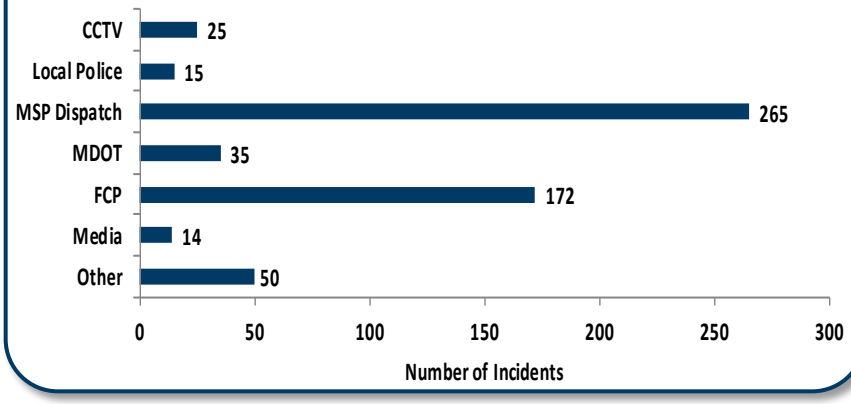


Control room **Events** consist of: construction, incidents, high impact (see definition on page 6), system maintenance (software and hardware), freeway maintenance (lighting, field equipment, potholes, sweeping, etc.), traffic inquiries (public and agencies), special event coordination, and Freeway Courtesy Patrol (FCP) assists (excluded from this table and described on page 3).

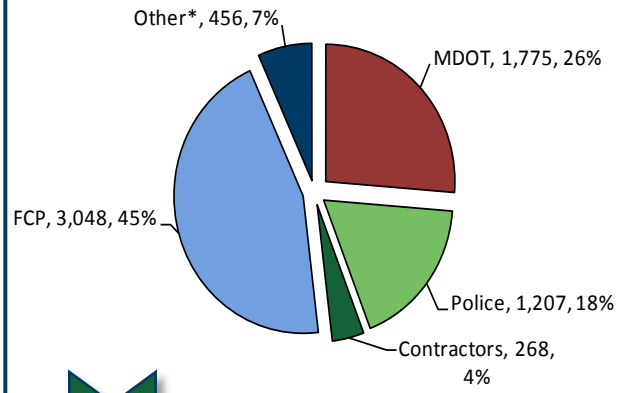
CROs logged **1,263 Events** along the freeways excluding FCP assists. The top **Event** categories are shown in the chart.

CROs rely on various sources to detect **Events** that occur along the freeways. When an **Event** is detected, the CRO is required to note which detection source was used. This not only ensures that the **Event** was detected by a reliable source, but also provides insight as to which sources are utilized most frequently.

Incidents by Detection Source



Calls by Agency

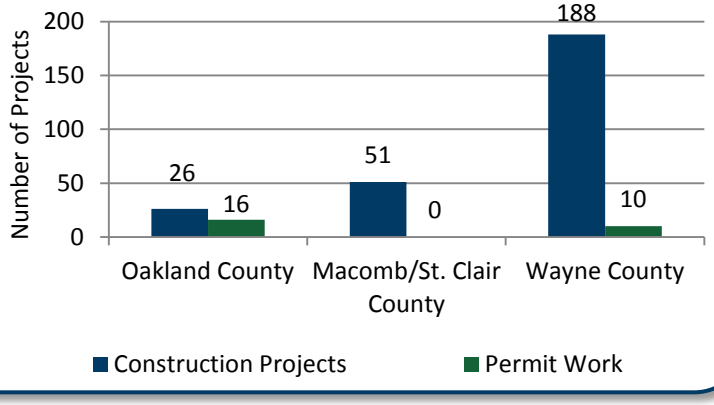


CROs managed **6,754 Calls** this month. The majority of all **Calls**, **45 percent**, were between the control room and the **FCP**.

*Other includes Airport, Border, City of Detroit, Fire, Media, Special Event Venues and Transit agencies, DTMB and County.

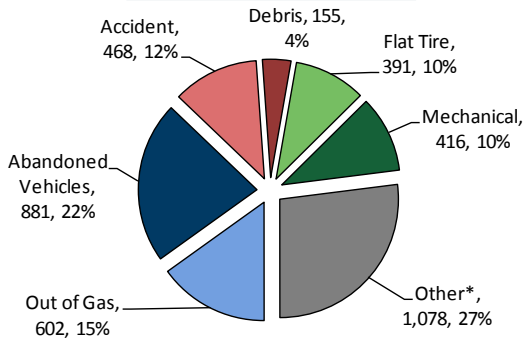
CROs are responsible for monitoring and managing traffic operations along the freeways. It is critical to know where construction activities are taking place and the impact that they may have on freeway operations. The construction coordinator maintains frequent communication with MDOT staff and contractors to ensure that the CROs are kept up-to-date on the locations and impacts of construction project and permit work (local agencies working on state trunklines).

Construction Activities



Freeway Courtesy Patrol

Assists by Type

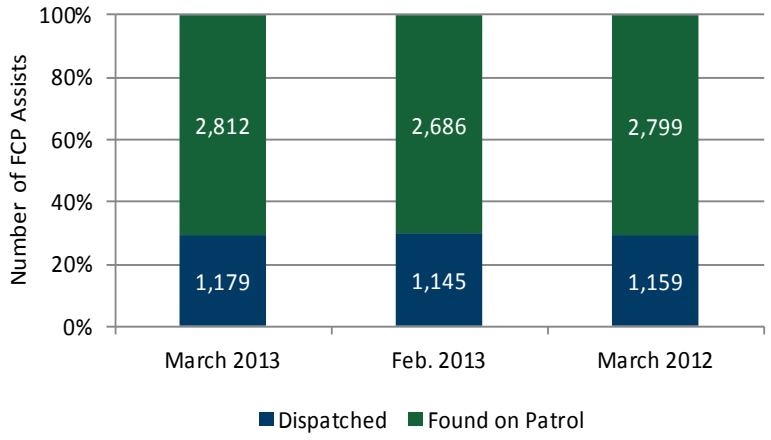


The FCP is a free service provided to the public to assist stranded motorists, provides traffic control for **Incidents** and improves mobility along the freeways by keeping travel lanes clear of debris and disabled vehicles. FCP had a total of **3,991** assists. The majority of the assists (**22 percent**) were identifying **Abandoned Vehicles.**

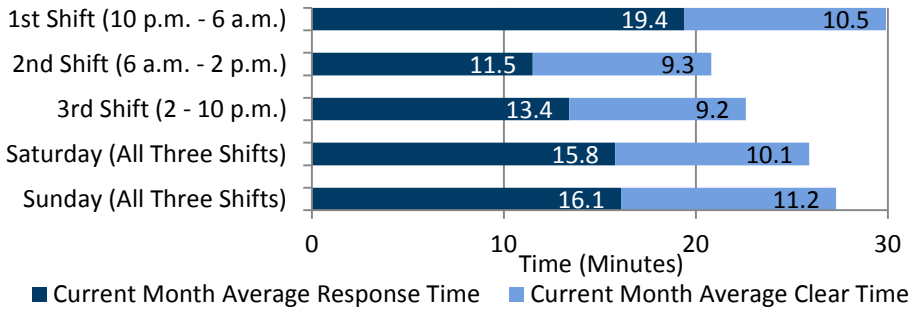
*Other includes Cellular Assists, Declined Service, Tow, Gave Directions, Gone on Arrival (GOA), Traffic Policing, Transport and Canceled/Disregarded Runs.

FCP drivers are required to patrol their routes when not actively handling an assist. While on patrol, the driver may find an **Event** of which the control room is not yet aware. He/she will contact the control room via radio and the **Event** will be logged as "Found on Patrol." Likewise, if the CROs detects an **Event** that may require FCP involvement, he/she will dispatch the driver to the **Event** location and log it as "Dispatched."

FCP Assists Dispatched vs. Found on Patrol



Average Assist Times



The response and clear times for all FCP assists are logged by CROs. The average response and clear times for the current month are depicted on the graph to the left.

Shift response times may differ greatly due to the number of drivers on duty and their coverage areas.

The FCP patrols more than **320** miles of freeway in southeast Michigan. They provided the most assistance along **I-75** (**1,025 assists**). On **M-8** they experienced the highest assist density (**21.8 assists per mile**). The average response and average clear times for each freeway can be compared to the "Average Assist Times" graph, which provides system-wide statistics by shift.

FCP Assists by Freeway

Freeway	Miles	Total Assists	Assist Density (assists per mile)	Avg. Response Time (minutes)	Avg. Clear Time (minutes)
I-75	87.6	1,025	11.7	12.2	8.5
I-94	60.7	835	13.8	13.1	11.0
I-96	34.0	527	15.5	14.8	10.3
I-275	37.5	294	7.8	15.5	9.6
I-696	28.7	489	17.0	13.7	7.9
M-59	24.0	76	3.2	13.0	11.2
I-375	1.2	4	3.3	8.5	11.4
M-10 (Lodge)	17.9	354	19.8	12.1	9.8
M-14	6.4	54	8.4	13.8	9.2
M-39 (Southfield)	14.2	241	17.0	14.6	10.1
M-5 (Grand River)	10.3	44	4.3	16.9	7.3
M-8 (Davison)	2.2	48	21.8	11.2	6.8

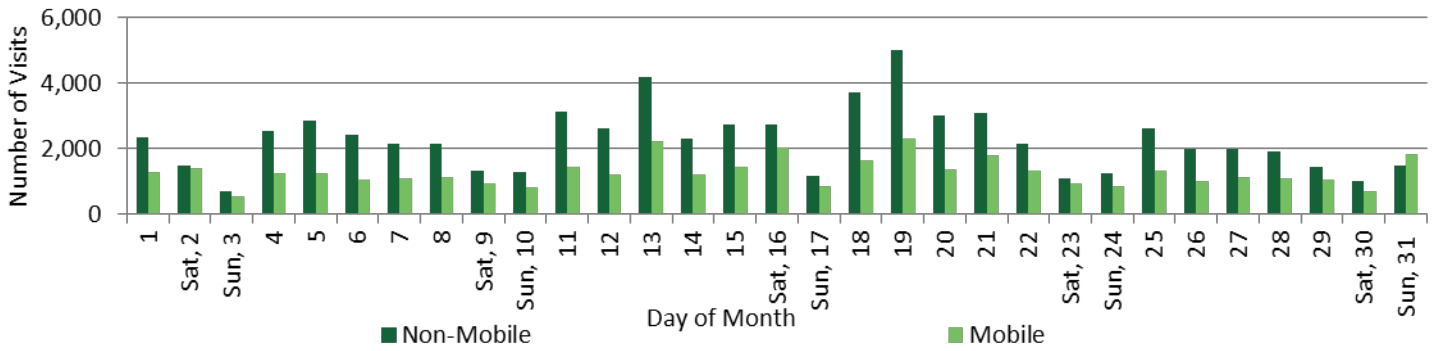
Most-Utilized DMS for Unique Messages

Location	# Unique Messages	% of Total Unique Messages
WB I-696 @ Ryan	99	4%
SB I-75 @ Clay	97	4%
EB I-94 @ Central	89	4%
WB I-94 @ John R	86	4%
EB I-94 @ John R	84	4%

There were **2,368** unique messages displayed throughout the ITS network. A "unique message" may be an **Incident**, AMBER Alert, construction or special event message.

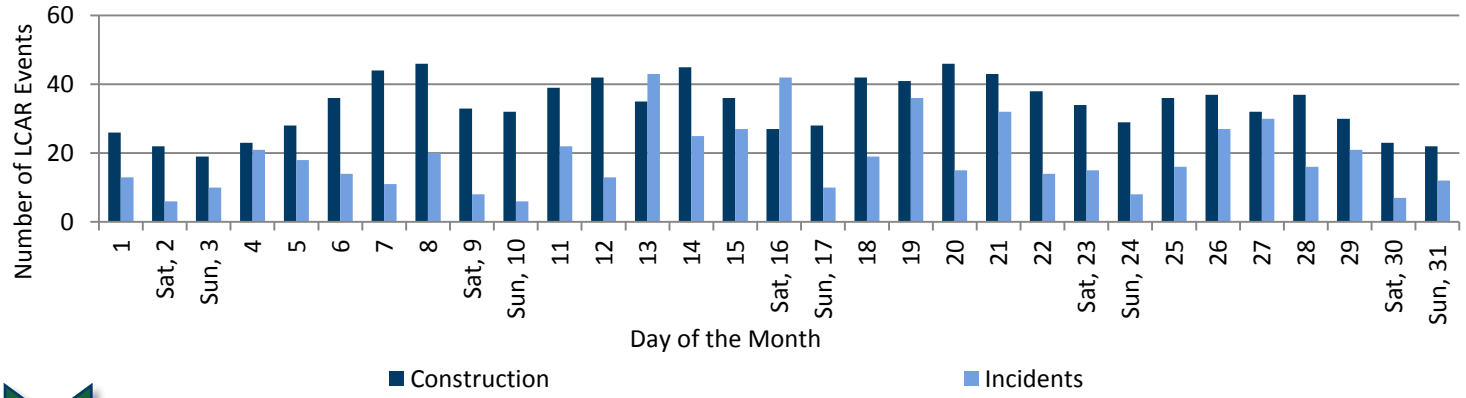
Travel time messages are routinely displayed when unique messages are not active. Travel times are updated every six minutes.

Mi Drive Web Site Visits



A "visit" is counted each time a user accesses the **www.michigan.gov/drive** Web site, regardless of the number of pages viewed within the site. "Mobile" visits are those where the site is accessed using a mobile device, while "Non-Mobile" visits are those where the Web site is accessed from a computer.

LCAR Posts Sent to the Web Site



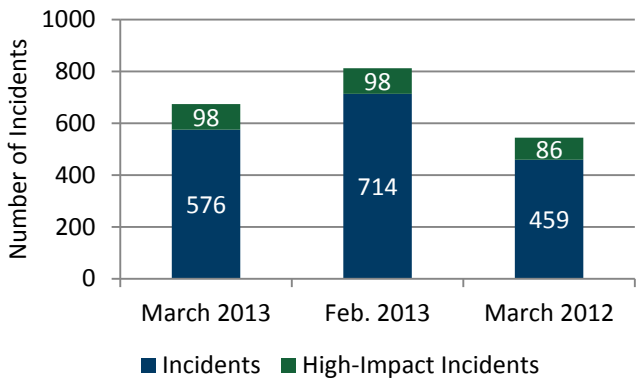
CROs are able to post construction and **Incident** information to the Mi Drive Web site using the Lane Closure and Restrictions (LCAR) tool. Each post that was sent to the Web site is shown in the chart above.

Incidents by Freeway

Freeway	Miles	March 2013			Feb. 2013			March 2012		
		Total Incidents	Incidents per Mile	Average Duration	Total Incidents	Incidents per Mile	Average Duration	Total Incidents	Incidents per Mile	Average Duration
I-275	37.5	49	1.31	66.2 min	72	1.92	44.3 min	31	0.83	**85.8 min**
I-375	1.2	1	0.83	68.0 min	0	0.00	N/A	1	0.83	30.0 min
I-96 (Jeffries)	34	1	0.03	43.0 min	90	2.65	44.3 min	83	2.44	40.0 min
I-696 (Ruether)	28.7	108	**3.76**	41.7 min	103	**3.59**	45.9 min	57	1.99	41.8 min
I-75 (Chrysler/Fisher)	87.6	**131**	1.50	51.5 min	141	1.61	45.8 min	**112**	1.28	58.6 min
I-94 (Ford)	60.7	114	1.88	45.6 min	**186**	3.06	43.3 min	107	1.76	46.6 min
M-10 (Lodge)	17.9	35	1.96	24.3 min	58	3.24	43.9 min	28	1.56	37.0 min
M-14	6.4	5	0.78	53.8 min	17	2.66	**80.1 min**	N/A	N/A	N/A
M-39 (Southfield)	14.2	52	3.66	37.4 min	41	2.89	36.5 min	37	**2.61**	33.3 min
M-59	24	1	0.04	**143.0 min**	3	0.13	41.3 min	1	0.04	82.0 min
M-8 (Davison)	2.2	3	1.36	77.7 min	3	1.36	79.3 min	1	0.45	16.0 min
Total Average		45	2	59.3 min	65	2	51.2 min	46	1	47.1 min

I-75 experienced the highest total **Incidents**; however, **I-696** had the greatest incident per mile rate. The longest average incident duration occurred along **M-59**.

Total Incidents



There were a total of **674** total **Incidents**, **15 percent** of which were high-impact. **A high-impact incident is one that results in a total freeway closure in one direction, a freeway-to-freeway ramp closure or a closure of all lanes with only one lane open.**

The majority, **32 percent**, of high-impact incidents occurred along **I-94**. Each time a high-impact incident occurs, CROs are required to provide e-mail notifications to a pre-defined distribution list of individuals and organizations. The notifications include the location of the incident, degree of closure, reason for the closure, the source that verified the incident and any other pertinent information related to traffic operations.

High-Impact Incident Activity

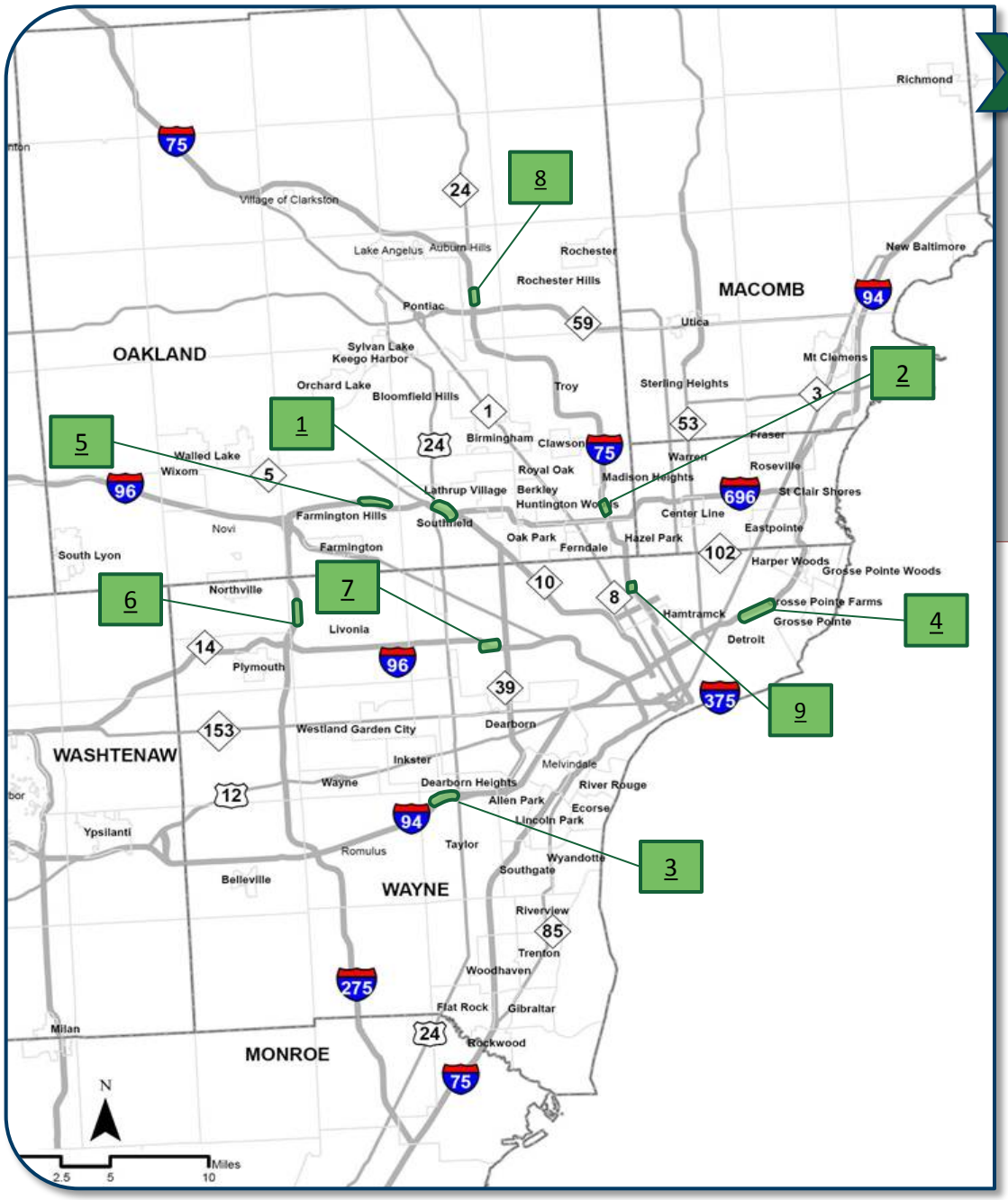
	March 2013	Feb. 2013	March 2012
Freeway Closures All Lanes Closed in One Direction	18	19	17
Lane Closures Only One Lane Open	67	73	59
Ramp Closures Freeway-to-Freeway	12	6	10
Total	98	98	86

Top Duration Incidents

Location	Date/Duration	Details
NB I-75 @ South Boulevard	3/2/2013 / 689 min	Crash
WB M-5 Ramp @ Grand River	3/7/2013 / 567 min	Crash
NB I-275 Ramp @ Westbound I-96	3/13/2013 / 479 min	Crah
EB I-94 @ Gratiot (Roseville)	3/11/2013 / 255 min	Crash
WB I-94 @ Little Mack	3/11/2013 / 251 min	Crash

The top duration **Incident** occurred along **I-75** and lasted **689** minutes, compared to the average incident duration along **M-59** of **143** minutes.

Freeway Incident Hot Spots



The top **Event** locations for the month are identified on this map. Each month the locations and **Event** types may change. Hot spot **Events** may include accidents, debris or weather-related events. Details for each location depicted on the map can be found in the "Hot Spot Activity" table below.

The hot spots depicted on the map are described in this table. The number of hot spot **Event** locations may vary each month depending on the threshold used for categorizing the location as a "top" hot spot. The threshold is chosen after analyzing the data and identifying the logical gap where the "top" and "normal" activity levels fall. This month, a threshold of **19 Events** was used.

Hot Spot Activity

Location Number	Event Type	Location	Number of Incidents	Percent of Incident Total
1	Accident	NB M-10 between I-696 and Telegraph	34	6%
2	Accident	NB I-75 between Woodward Heights and 11 Mile	28	5%
3	Accident	WB I-94 between Monroe and Beech Daly	27	5%
4	Accident	EB I-94 between French and Conner	24	4%
5	Accident	WB I-696 between Middlebelt and Farmington	23	4%
6	Accident	NB I-275 between 5 Mile and 7 Mile	22	4%
7	Accident	EB I-96 between Evergreen and M-39/Southfield	21	4%
8	Accident	NB I-75 between Auburn and Chrysler Drive	20	3%
9	Accident	NB I-75 between McNichols/6 Mile and 8 Mile	19	3%