

## Michigan 2011 Transparency Report

### Locations Exhibiting the Most Severe Safety Needs

Location	Jurisdiction	Potential Remedies	Estimated Costs	Implementation Impediments	Comments	Crash and Injury Data				Human Factors Involvement		
						SHSP Focus Area	Total Severe Crashes	A Injuries	Fatalities	Alcohol and/ or Drug*	NO Seatbelt and/ or Helmet Use**	Speed***
M-59 (E Highland Rd) & Hartland Woods Drive	MDOT Brighton TSC	Investigate converting existing passing flare to a center left turn lane. Check taper length. Possible tree removal.	\$1000 per tree removal. Pavement markings to convert to center left turn lane - \$3000.00. With widening and no ROW center left turn lane - \$375,000.	Public acceptance for removal of trees, If widening necessary - availability of funding or reorganization of safety projects to accomodate funding. Possible ROW required if widening necessary.		Intersection	4	8	0	0	1	0
Palmer Rd & Venoy Rd	Wayne County	Widen pavement. Provide center left turn lanes and upgrade signal.	\$350,000	Additional R.O.W. would be needed and would be difficult to acquire due to impact on existing businesses.		Intersection	5	7	1	1	0	0
US-24 (Telegraph) & Struin Rd	MDOT Taylor TSC	Installation of a continous left center turn lane.	~\$1,500,000	N/A	This work will be completed with JN46277 in 2012.	Intersection	4	6	2	2	0	0
M-21 & Airport Trail	MDOT Lansing TSC	Left turn phasing. Reconstruct private approach to signal as a road approach rather than a large M opening with gutter. Move service drive farther away from M-21.	\$100,000 to \$500,000	This is a private driveway approach, and is not eligible for MDOT funding. Similarly, the service drive is on private property and is not eligible for state funding. The need to move buildings or redesign parking makes moving the service drive an unattractive option for the property owner.	Signal is being evaluated for protected left turn phasing.	Intersection	4	8	0	0	0	0
M-97 (Groesbeck) & 10 Mile Rd	MDOT Macomb TSC	Install left-turn phasing on M-97.	\$150,000	A 2009 request to install left turn phasing on M-97 was not recommended because the operational changes did not meet signal warrant.		Intersection	4	5	1	1	0	1
M-1 (Woodward Ave) & Manchester St	MDOT Detroit TSC	Pedestrian push buttons. Left turn phase.	\$100,000 to upgrade signal	Planned Light Rail may eliminate left turns at this intersection.	Will coordinate with Light Rail project planned for the M-1 cooridor.	Intersection	4	7	0	0	0	1
Zimmer Rd & Linn Rd	Ingham County	Installation of additional STOP AHEAD and STOP signs on the left side of the two Linn Road approaches to the intersection. Installation of additional "cross traffic does not stop" signs mounted on the back of the STOP sign posts for opposing traffic (across the road from the conventional STOP sign, left side). Installation of stop bar pavement markings on each approach. Installation of rumble strips on each approach. Installation of a flashing beacon.	\$50,000	Maintenance issues related to installation of transverse rumble strips. Availability of power for a flashing beacon. All unique installations require unique or additional infrastructure maintenance efforts from a bare-bones staff.	An intersection analysis was completed in 2008 due to an increase in crash numbers. The analysis did not warrant installation of an all-way stop situation. As a result, we did install 36" STOP signs, yellow "cross traffic does not stop" signs under the STOPS, and reflective post inserts. Linn Road from the Williamston Road interchange with I-96, west to Meridian Road to Jolly Road was an "alternate route" around the I-96 construction during the summer of 2010.	Intersection	4	7	0	0	1	0
13 Mile Rd & Dequindre Rd	Macomb County	Protected left during off peak.	\$1,000		Alignment shift E/W.	Intersection	6	6	0	0	0	0

M-3 (Gratiot Ave) & Mt Elliot	MDOT Detroit TSC	Enforcement and education. Provide headed-up lefts on Mt. Elliot and left-turn phasing, No Turn On Red signing, close driveways, provide a box spansignal configuration, pedestrian count-down signals.	\$100,000 to upgrade signal	Availability of enforcment; Signal may not meet warrants; utility issues with box span; political issues with closing existing drives for existing businesses. Mt. Elliot is under local jurisdiction.		Intersection	5	4	2	1	0	0
M-21 (Chicago Dr) & 72nd Ave	MDOT Grand Rapids TSC	Add indirect left turn lanes. Close through movement of 72nd Ave due to crash type.	\$600,000	N/A	The construction of indirect left turn lanes and the closure of the through movement of 72nd Ave will be completed in 2011.	Intersection	5	5	1	0	0	0
Schoenherr Rd & 21 Mile Rd	Macomb County	Access Management, NW corner.	\$250,000	No existing joint land use		Intersection	5	6	0	0	2	0
US-31 & Morgan Run Drive	MDOT Traverse City TSC	None	N/A	N/A	Crashes were segment related. Rumble Strips were installed in 2010. No additional crashes have occurred since installation. All four of the crashes occurred during adverse weather conditions. Surface conditions listed as ICY.	Intersection	4	3	3	0	0	4
Schaefer Hwy & W Chicago St	City of Detroit	Provide box span signal display, left-turn phase for E-W direction, pavement markings, intersection lighting and check signal timing (Clearance Intervals and offsets).	\$250, 000	Right of way restrictions, utility coordination.		Intersection	4	6	0	0	0	0
SB US-131 - Cherry St to south of Franklin St	MDOT Grand Rapids TSC	Enforcement and increase delineation.	N/A	Availability of enforcement	High percentage of the serious injuries were alcohol related crashes. Constructed recessed modified urethane pavement markings through this section in 2010.	Lane Departure	11	13	0	5	0	5
WB I-94 - E of Scotten St to 1/4 mile W of 30th St	MDOT Detroit TSC	Cushion wall; drainage improvements; enforcement.	Unknown for "new drainage" and cushion wall.	Utility issues with "new drainage"; funding/personnel issues with enforcement.	Crashes relate to issues present along the corridor and should be addressed along I-94, not limited this location.	Lane Departure	6	7	2	2	1	4
SB US-131 - North of 10 Mile Rd interchange to south of 10 Mile Rd interchange	MDOT Grand Rapids TSC		N/A	N/A	Six of the serious injuries were from one crash where a vehicle lost control and overturned due to a tire that blew.	Lane Departure	5	11	0	0	6	2
WB I-96 - Beech Daly to Inkster Rd	MDOT Taylor TSC	Improve Superelevation, improve drainange, improve surface friction	\$1,000,000	None	This work will be incorporated into JN 89095 in 2013.	Lane Departure	8	9	0	1	0	5
EB I-94 - near Kalmbach Road	MDOT Brighton TSC	Add additional speed plaques to curve warning signs, provide additional chevron signs along curve, check if additional guardrail is necessary just after overpass, trim vegetation around curve and add delineators on guardrail.	Additional signing - \$1500, guardrail - \$9500, trim vegetation - \$1000, (\$1000 per tree if removal necessary), Delineators - \$500.	Public acceptance for removal of trees, if necessary.	Additonal curve warning with speed advisory signs, Chevrons, sign post reflector panels, were added in early 2009. A safety project has been submitted for installation of an automatic de-icing system for 2014.	Lane Departure	5	6	3	0	7	5
WB I-94 - north of 8 Mile Rd to Lochmoor Dr (crossover bridge)	MDOT Detroit TSC	Enforcement	Unknown	Availability of enforcment.		Lane Departure	7	5	2	1	2	3
US-41 - Railroad bridge east of Midway Dr to Brebner Road	MDOT Ishpeming TSC	Double-sided guardrail in middle of paved median.	\$40,000	Would need attenuation at each end; maintenance and plowing will be more difficult in this area; maintenance of attenuators after hits; increase of fixed object crashes.	The area does include a railroad overpass with median abutment which does already have attenuation, this would remove need for attenuation at this location and instead have attenuation away from the structure, at the terminals of the guardrail.	Lane Departure	5	8	0	2	3	4

Exit 204B - Ramp from EB I-94 to NB M-39	MDOT Taylor TSC	Improve Superelevation, improve drainage, improve surface friction, remove slope paving, install crash cushion, improve advance warning speed advisory signs.	~\$460,000	None	This work will be completed with JN 110558 in 2012.	Lane Departure	4	7	0	0	0	4
SB US-31 - north and south of Laketon Road interchange	MDOT Muskegon TSC	Increase delineation around loop ramp, lengthen off ramp.	\$2,500,000	None	Added additional flexible delinator posts around loop ramp in 2009; Weave merge lane to be constructed in 2011 which will increase the deceleration lane of existing off ramp; cable median barrier installed in 2010.	Lane Departure	5	5	1	0	0	3
WB I-94 - east of Seargent Road to Ann Arbor Road	MDOT Jackson TSC	Lengthen on-ramp from Sargent Rd.	\$500,000		Crashes have multiple, unrelated factors associated with them.	Lane Departure	4	5	1	0	0	2
M-28 - west branch Sage River (west of Co Rd 393) to County Rd 397	MDOT Newberry TSC	Shoulder Rumble Strips; Break-a-way Delineators	~\$15,000, \$10,000	Paved Shoulder is only 3 feet wide which does not meet standards for placing shoulder rumble strips.; Large snow totals in this area would put the snowbanks towards the top of the reflector as well as multiple break-a-way pins being broken with the amount of plowing on M-28.	M-28 through this loctions is a straight stretch of highway. Centerline rumble strips are provided throughout the area.	Lane Departure	4	5	1	1	2	2
US-41 - Bayou Street to Prison Road	MDOT Ishpeming TSC	Reconstruct Road w/ grade lift, proper cross slope, remove barrier curb and gutter, provide 8' paved shoulders.	\$5,000,000	N/A	Job Number 80147 and 106661 will be constructed in 2012 to accomplish these remedies. Job will extend beyond prison road to north to the Carp River.	Lane Departure	4	5	1	3	2	2
SB US-31 - south of Holton Rd to crossover south of Cedar Creek	MDOT Muskegon TSC	Ensure consistent paved shoulder width throughout section of roadway; removing identified trees if in clear zone.	\$2,000,000	If existing total width of shoulder is less than 11 feet, impacts to existing drainage, wetlands and slopes may result with shoulder widening.	Address as projects are constructed along this section with current standards.	Lane Departure	4	6	0	0	2	1
Sprinkle Road - North of Michigan Ave to north of Main St	Kalamazoo County	Centerline and shoulder rumble strips. Possible superelevation modification.	\$450,000	Acceptance for future local safety project.	Possible future local safety project.	Lane Departure	6	8	0	1	0	2
Capac Road - Pratt Rd to Hough Rd	Macomb County	Center and shoulder rumble strips.	\$50,000		Partially in St Clair County.	Lane Departure	5	3	3	3	2	4
Sheridan Road - Evanston Ave to Vine Ave	Muskegon County	No geometric remedies are proposed. Road to receive surface treatment chip seal in 2011.	N/A	None	This segment contains two closely spaced intersections each with high volume four-way stop control. There are also three residential area road intersections. Crashes within the segment are related to the effects of the intersections. The intersections will be reviewed separately.	Lane Departure	4	8	1	1	0	1
Fruit Ridge Ave NW - 1/2 M south of 7 Mile Rd to 1/4 M north of 7 Mile Rd	Kent County	Provide a clear zone within the Right-of-Way. Improve the friction factor of the road surface.	\$95,000	Property owner objection to tree removal.	A Federal Local Safety project grant was awarded for (FY2012)	Lane Departure	4	4	2	1	2	1
44th Street - east of 8th Ave to I-196 southbound off-ramp	Ottawa County	Chevron installation east of Regal Dr.	\$500	None	As per MDOT Local Safety Initiative suggestion.	Lane Departure	4	6	0	3	0	2
Greenfield Road - Ellis Rd to Wadsworth Rd	Wayne County	Eliminate on street parking and remark pavement to include center left turn lane.	\$150,000.00	Elimination of on street parking will be difficult due to most businesses do not have off street parking.		Lane Departure	4	6	0	1	2	2
Cooley Lake Rd - Hiller Rd to Lake Vista Rd	Oakland County	Review signs and upgrade where needed to flourescent yellow sheeting. Replace raised pavement markers (RPMs) as needed. Flatten Curve.	About \$2500 for signing and RPMs, \$1,000,000 for geometric improvements.	Environmental issues with lake. Significant ROW issues.	Will replace signs this year. Will try to replace RPMs this year, but may need wait until next year. May also have strong opposition from locals.	Lane Departure	5	5	1	1	2	2
Dequindre Rd - Common Rd to Whitcomb Rd	Macomb County	Rumble strips.	\$50,000	Pavement quality may not support rumble strips.		Lane Departure	4	4	1	0	0	0

Grafton Road - US-24 to Newport Road	Monroe County	Signing upgrade (last one completed 2007), speed enforcement, improve curve areas where crashes are focused (N Stony Creek Road intersection).	\$97,000	Design paperwork and awaiting funding availability.	2012 Safety Funds Granted to Fix Curve at N Stony Creek Road	Lane Departure	4	4	1	2	0	0
Whittier Rd - Wayburn St to Kelly Rd	City of Detroit	Edgeline and other pavement marking updates, chevron signs, guardrail and geometric improvements to eliminate/minimize lane departures.	\$300,000	Right of way restrictions, utility coordination.		Lane Departure	4	5	0	1	2	3
Carpenter Road - Pat St to Stark Ln	Washtenaw County	Construct paved shoulders, install centerline and shoulder rumble strips, improve ditch slopes and remove any roadside obstructions within the road right-of-way.	> \$500,000		The Washtenaw County Road Commission is planning to apply for 2012 Safety Funds to assist with improving this segment of roadway.	Lane Departure	3	4	2	1	0	2
7 Mile Road - Pinehurst St to Woodingham Dr	Wayne County	Eliminate on street parking and remark pavement to include center left turn lane.	\$100,000	Elimination of on-street parking will be difficult due to most businesses do not have off street parking.		Lane Departure	3	5	1	0	0	1
Erie Road - west of Jackson/Calhoun County line to east of Finley Road	Jackson County & Calhoun County	1) Cut trees & widen shoulders 2) Option #1, plus wedge & recessed pavement markings	1) \$40,000 2) \$103,000	Sight distance, driver correction area, ride quality, poor visibility of pavement markings.	Improve visibility for motorists, correct road crown & new, enhanced pavement markings.	Lane Departure	3	5	1	2	3	1
Hyne Rd - E/W of Old US-23.	Livingston County				Moved planned signing changes forward.	Lane Departure	3	6	0	2	2	1

<b>Additional Notes:</b>	*Alcohol/Drug involvement is reported on a per crash basis when reported on the crash report. Not per driver or injured party.
	**All fatal and incapacitating injured drivers and/or passengers were reported when not wearing a seatbelt or helmet (motorcycle crashes). Use for remaining drivers and passengers could be listed as yes, unknown or not applicable.
	***Speed related crashes involve vehicles whose hazardous action was listed at "Speed too fast" or when the crash report narrative indicated a driver was speeding.