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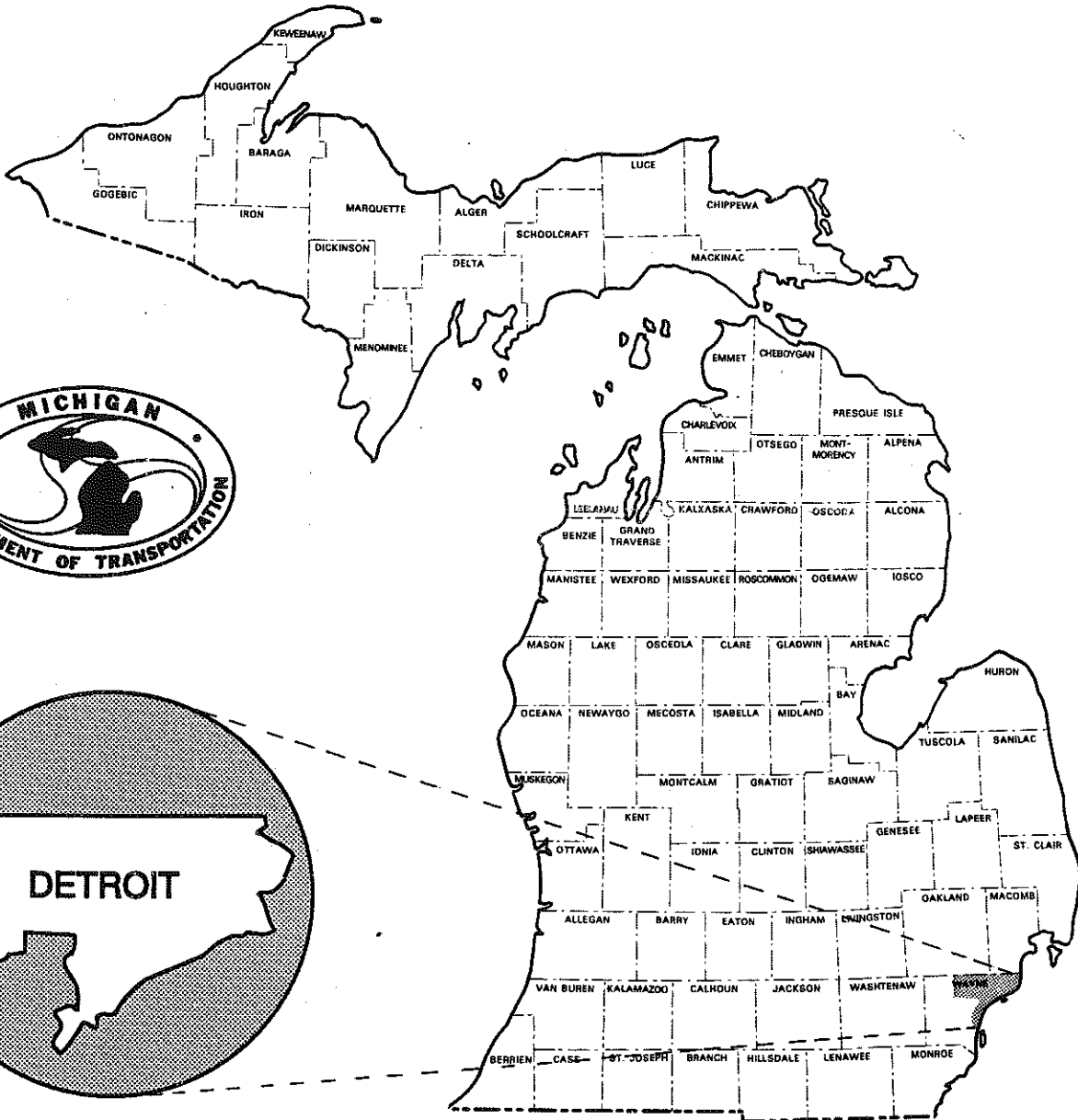
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TRAFFIC AND SAFETY DIVISION

STATE TRUNKLINE ACCIDENT

SURVEILLANCE PROGRAM

MARCH 1990



CITY OF DETROIT

**MICHIGAN DEPARTMENT
OF
TRANSPORTATION**

State Trunkline Accident Surveillance Program

City of Detroit

TSD 585-90

by

**B. D. Agrawal, Transportation Engineer
and
Fuad Kassouf, Traffic Technician
Safety Programs Unit
Traffic and Safety Division**

**William T. Lebel
Unit Supervising Engineer**

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March 1990

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INTRODUCTION

Study Purpose

This study is the product of the Safety Programs Unit, located within the Traffic and Safety Division, of the Michigan Department of Transportation. The unit's goal is to reduce accidents, injuries, and fatalities on the state highway system to the maximum extent possible within the framework of available resources. In pursuing this goal, the unit analyzes accident data in a prioritized manner and develops traffic safety measures to reduce specific concentrations of accidents and accident types. These are documented in individual district wide reports. Metro District is divided further into reports for each county.

Location

This report documents our review of the City of Detroit as indicated on the cover. Accident data from 1979 thru 1987 was reviewed for intersection and midblock locations using the methods identified below. Accident data for 1988 was also reviewed for each location.

Study Methods

MALI (Michigan Accident Location Index) and MIDAS (Michigan Dimensional Accident Surveillance) computer programs were used to identify and analyze the study locations.

Locations selected included:

1. Intersection locations with right angle, head-on left turn and rear end accident patterns (using intersection accidents only) above predefined thresholds for 1985-1987. (See thresholds page 2.)
2. Midblock locations in half mile segments with accident patterns (using intersection and midblock accidents) above predefined thresholds for 1983-1987. (See thresholds page 2.)
3. Intersection and midblock locations with three or more fatal accidents for 1979-1987 in a half mile segment.

After identification, all locations were reviewed by the author in conjunction with the district traffic and safety engineer and other appropriate Traffic and Safety Division personnel. The review included a discussion of the significant accident patterns and potential accident countermeasures which are summarized in this report. Locations at which no countermeasures were recommended, for various reasons, are also included with minimum discussion.

Implementation

Implementation of the recommended countermeasures is an essential element of this traffic safety improvement program. Every effort was made to ensure that all recommendations were deemed appropriate, desirable, feasible, and cost-effective by the review team and/or by those responsible for initiating implementation. The review team for this report was Joseph E. Bassil, Metro District, Mark Grennell, Electronic Systems Unit and B. D. Agrawal and Fuad Kassouf, Safety Programs Unit.

SAFETY PROGRAMS UNIT THRESHOLDS

Intersections

Three Years 1985-1987

0.5 Standard Deviation Above Mean

Accident Type	Minimum ADT < 10,000	Threshold 10,000 < ADT < 20,000	ADT > 20,000
Right Angle	10	15	20
Head-On Left-Turn	10	15	20
Rear-End	20	25	30

0.5 Segments (including Intersections)

Five Years 1983-1987

Accident Type	ADT < 10,000	Minimum Threshold 10,000 < ADT < 20,000	ADT > 20,000	Minimum % of Total
Wet	20	30	40	40
Icy	20	30	40	30
Dark	20	30	40	50
O-Turn/F.Obj	15	20	25	
Train	2	3	4	
Parking/Parked Veh.	20	30	40	
Animal	25	25	25	
Hd-On/SS-Mt	6	8	10	
SS-Pass	4	6	8	
Backing	10	15	20	
Ped/Bike	6	8	10	

-Fixed object accident type excludes guardrail accidents.

-All freeway interchange accidents are excluded.

-All intersection type accidents (Right Angle, Head-on Left-Turn, Rear-End) are excluded.

0.5 Segments (including Intersections)

Nine Years 1979-1987

Any 0.5 mile segment (including intersections) with a minimum of three fatal accidents in nine years.

*Because of excluded accident types mentioned above, threshold summaries may not match computer summaries used for analysis of each location.

SUMMARY OF RECOMMENDED ACTIONS

<u>Location</u>	<u>Recommended Action</u>	<u>Implementing Agency</u>
1. M-3 (Fort St.) at 12th (Rosa Parks Blvd.) City of Detroit, C.S. 82071, M.P. 3.82	Extend yellow intervals and study for possible left-turn phasing.	ESU
2. M-3 (Gratiot) at Russell, Detroit C.S. 82072, M.P. 01.13	The signal timing and progression will be reviewed to determine its adequacy.	ESU
3. M-3 (Gratiot) at M-53 (Van Dyke), Detroit, C.S. 82072, M.P. 3.86	Revise the "splits" to allow more green time on Gratiot.	ESU
4. M-3 (Gratiot) at McClellan, Detroit C.S. 82072, M.P. 04.73	Study for possible pedestrian push button signal.	ESU
5. M-3 (Gratiot) at Harper Ave., Detroit C.S. 82072, M.P. 4.93.	Modernize the signal equipment depending on the availability of funds.	ESU
6. M-3 (Gratiot) at French Rd., Detroit C.S. 82072, M.P. 05.50	Review the "splits" for adjustment to allow more green time on Gratiot.	ESU
7. M-3 (Gratiot) at Conner Rd., Detroit C.S. 82072, M.P. 05.86	Modernize the signal equipment depending on the availability of funds.	ESU
8. M-3 (Gratiot) at McNichols (6 Mile Rd.), Detroit, C.S. 82072, M.P. 07.56	Review the positioning of the signal "heads" and determine if prohibiting parking on Gratiot near the intersection can be attained.	ESU & SPU
9. M-3 (Gratiot) at 7 Mile, Detroit, C.S. 82072, M.P. 08.19	Review to determine if better signal "head" visibility can be attained.	ESU
10. M-1 (Woodward) at Larned, Detroit, C.S. 82131, M.P. 08.66	The signal equipment will be modernized as part of a closed loop system along Larned.	ESU & Detroit
11. M-3 Connector, Randolph at Larned, City of Detroit, C.S. 82132, M.P. 0.14	The signal equipment will be modernized as part of a closed loop system along Larned.	ESU Detroit

	<u>Location</u>	<u>Recommended Action</u>	<u>Implementing Agency</u>
12.	M-102 (Eight Mile Rd.) at Ryan Ave., Cities of Warren/Detroit, C.S. 82143 M.P. 3.13	Replace signal heads facing Ryan Ave. on WB M-102 with 12-inches oversized.	ESU
13.	M-102 (Eight Mile Rd.) at Hayes St., Cities of East Detroit/Detroit C.S. 82144, M.P. 0.08	Post a "No Turn On Red" sign for the Hayes St. traffic	Metro District
14.	M-53 (Van Dyke) at Harper, City of Detroit, C.S. 82151, M.P. 0.86	Provide a left-turn phase for the SB M-53 and prohibit left turns from the NB M-53.	ESU
15.	M-53 (Van Dyke) at 7 Mile Rd., City of Detroit, C.S. 82151, M.P. 3.92	1. Extend the 7 Mile Rd. yellow interval from the existing 4.2 to 4.8 seconds. 2. Study for a possible left-turn phase for the M-53 traffic. 3. Replace the 7 Mile Rd. signals with 12 inches oversized.	ESU ESU ESU
16.	M-97 (Hoover-Gunston) at 6 Mile Rd., City of Detroit, C.S. 82171, M.P. 0.90	Study feasibility of headed-up left turn lanes.	GCU & ESU
17.	M-97 (Hoover) at 7 Mile Rd., City of Detroit, C.S. 82171, M.P. 1.91	Study feasibility of headed-up left turn lanes.	GCU & ESU
18.	M-85 (Fort) at Visger Rd., City of Detroit, C.S. 82211, M.P. 14.43.	Extend the stop-and-go operation to 2 a.m.	ESU
19.	M-85 (Fort) at Schaefer Hwy., City of Detroit, C.S. 82211, M.P. 15.05	Modernize the existing signal layout to provide additional traffic and pedestrian signal heads and to increase their size to 12 inches oversized.	ESU
20.	M-5 (Grand River Avenue) at Livernois, City of Detroit, C.S. 82821, M.P. 2.29	Study for a possible left-turn phase for the Livernois traffic.	ESU
21.	M-5 (Grand River Ave.) at W. Grand Blvd., City of Detroit, C.S. 82821, M.P. 4.01	1. Install two additional signal heads on the eastbound M-5 farside. 2. Install one additional signal head on the westbound M-5 farside.	ESU ESU
22.	M-1 (Woodward), City of Detroit, C.S. 82131, M.P. 7.00 - 7.50	Add pedestrian signals at Forest St./M-1 (M.P. 7.01) at Canfield/M-1 (M.P. 7.23) intersections.	ESU

<u>Location</u>	<u>Recommended Action</u>	<u>Implementing Agency</u>
23. M-102 (Eight Mile Rd.), City of Detroit, C.S. 82143, M.P. 1.50-2.00	Request pavement friction tests for the EB M-102.	SPU
24. M-102 (Eight Mile Rd.), City of Detroit, C.S. 82143, M.P. 7.00-7.50	Add pedestrian signals at M-102/Schoenherr Rd. Intersection (M.P. 7.11).	ESU
25. M-39 (Southfield Fwy.), City of Detroit, C.S. 82193, M.P. 1.00-3.50	Request pavement friction tests.	SPU
26. I-75 (Chrysler Fwy.), City of Detroit, C.S. 82252, M.P. 3.00-4.00	District Maintenance to review the salting operations.	Metro District

"ACTION" LOCATIONS

1. M-3 (Fort Street) at 12th (Rosa Parks Boulevard), City of Detroit
C.S. 82071, M.P. 3.82

Geometric and Operational Characteristics

M-3 (Fort Street) is a seven-lane, two-way roadway with a center lane for left turns. Rosa Parks Boulevard is four lanes, two-way with a raised median. This intersection is controlled by traffic signals operating on a 70-second cycle during peak hours with a 65/35 split. Average daily traffic on M-3 in 1987 was 13,800.

Accident Summary

A total of 49 accidents with 28 injuries occurred at this intersection during the three-year period (1985-1987). Opposing left-turn accidents accounted for 16 (33 percent) of the total accident history during the study period. The left turn "failed-to-yield" violations occurred in the following directions: eight southbound, six northbound, and two eastbound.

Recommendations

1. The Electronic Systems Unit will order traffic counts and will study for possible left-turn phasing.
2. Extend both yellow intervals to at least 4.2 seconds. The present yellow interval of 3.5 seconds does not meet the standard on the "Yellow Interval Chart."

Q/430/74

MICHIGAN DEPARTMENT OF TRANSPORTATION
SUMMARY OF ACCIDENT CHARACTERISTICS

DATE RANGE: 1/01/85 - 12/31/87

LOCATION: M-3(FORT) AT 12TH, DETROIT

82071 03.790-03.850

TYPE OF ACCIDENT	1985		1986		1987		TOTAL	
	NO.	%	NO.	%	NO.	%	NO.	%
LEFT TURN - SAME DIRECTION	1	9	1	6	1	5	3	6
OPPOSING LEFT TURN	2	18	4	25	10	45	16	33
REAR-END	5	45	4	25	4	18	13	27
ANGLE	1	9	2	13	3	14	6	12
SIDESWIPE	0	0	1	6	1	5	2	4
PEDESTRIAN	0	0	0	0	0	0	0	0
HEAD-ON	0	0	1	6	0	0	1	2
DRIVEWAY-RELATED	0	0	0	0	0	0	0	0
FIXED OBJECT	0	0	0	0	1	5	1	2
OTHERS	2	18	3	19	2	9	7	14
PAVEMENT CONDITION								
WET	1	9	3	19	7	32	11	22
DRY	9	82	12	75	14	64	35	71
SNOWY-ICY	1	9	1	6	1	5	3	6
LIGHT CONDITION								
DAY	5	45	13	81	18	82	36	73
DAWN OR DUSK	0	0	0	0	0	0	0	0
NIGHT	6	55	3	19	4	18	13	27
ACCIDENT SEVERITY								
FATAL ACCIDENTS (NO. OF PERSONS)	0	0	0	0	0	0	0	0
INJURY ACCIDENTS (NO. OF PERSONS)	5	45	1	6	5	23	11	22
PROPERTY DAMAGE ONLY	6	55	15	94	17	77	38	78
TOTAL ACCIDENTS	11		16		22		49	
TOTAL INJURIES	19		1		8		28	

2. M-3 (Gratiot) at Russell, City of Detroit
C.S. 82072, M.P. 01.13

Geometric and Operational Characteristics

M-3 (Gratiot) is a northeast-southwest, nine-lane, two-way roadway with a center lane for left turns and Russell Street is a two-way road two lanes wide.

This intersection is controlled by a 24-hour stop-and-go traffic signal operating on a 90-second cycle, with a 65/35 split favoring M-3 (Gratiot). There is a two percent "All Red" interval following the Russell Street green phase. Average daily traffic on M-3 was 19,600 in 1987.

Accident Summary

This intersection experienced 58 total accidents during the study period (1985-1987) with 26 injuries. This intersection appeared on the "High Accident Listing" because of 25 rear-end accidents. A review of the MIDAS accident printout revealed there were actually 31 rear-ends counting right turn rear-ends. Thus, rear-ends accounted for 53 percent of the total of 58 accidents at this intersection. Six of the rear-ends occurred on Russell, 7 on northeast Gratiot, and 18 on southwest bound Gratiot. During 1988 to October 31, 1988, 14 rear-end accidents occurred.

Recommendation

The time-space diagrams have been reviewed and appear to be adequate, however, the timing will be field checked against the permit to determine its accuracy.

MICHIGAN DEPARTMENT OF TRANSPORTATION
SUMMARY OF ACCIDENT CHARACTERISTICS

Q/430/74

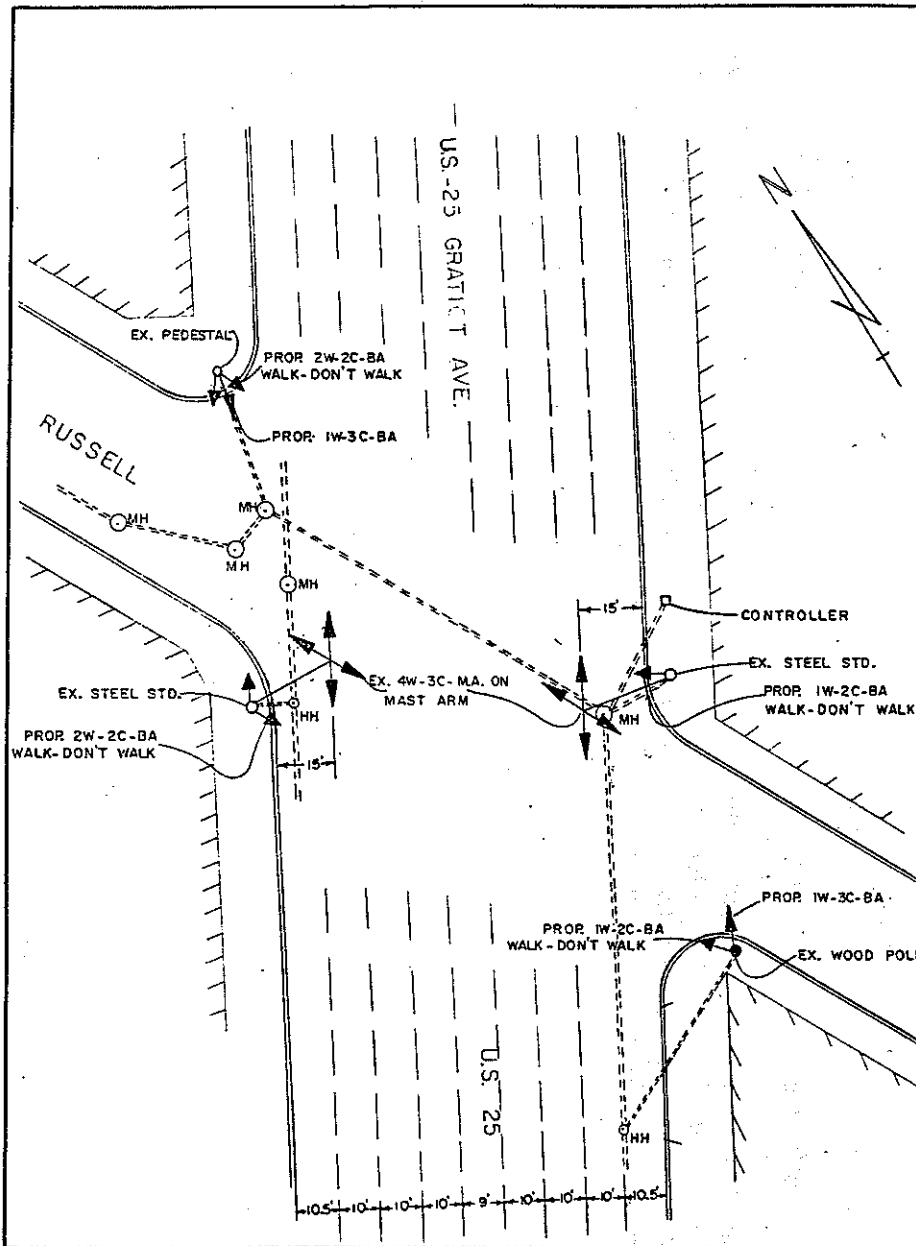
DATE RANGE: 1/01/85 - 12/31/87

LOCATION: M-3 (GRATIOT) AT RUSSELL

82072 01.070-01.190

TYPE OF ACCIDENT	1985		1986		1987		TOTAL	
	NO.	%	NO.	%	NO.	%	NO.	%
LEFT TURN - SAME DIRECTION	0	0	1	7	2	8	3	5
OPPOSING LEFT TURN	1	5	1	7	2	8	4	7
REAR-END	9	45	5	36	11	46	25	43
ANGLE	1	5	2	14	3	13	6	10
SIDESWIPE	1	5	0	0	0	0	1	2
PEDESTRIAN	2	10	1	7	0	0	3	5
HEAD-ON	0	0	1	7	0	0	1	2
DRIVEWAY-RELATED	0	0	0	0	0	0	0	0
FIXED OBJECT	1	5	0	0	1	4	2	3
OTHERS	5	25	3	21	5	21	13	22
PAVEMENT CONDITION								
WET	4	20	3	21	9	38	16	28
DRY	15	75	10	71	15	63	40	69
SNOWY-ICY	1	5	1	7	0	0	2	3
LIGHT CONDITION								
DAY	18	90	11	79	20	83	49	84
DAWN OR DUSK	0	0	0	0	1	4	1	2
NIGHT	2	10	3	21	3	13	8	14
ACCIDENT SEVERITY								
FATAL ACCIDENTS (NO. OF PERSONS)	0	0	0	0	0	0	0	0
INJURY ACCIDENTS (NO. OF PERSONS)	5	25	4	29	6	25	15	26
PROPERTY DAMAGE ONLY	15	75	10	71	18	75	43	74
TOTAL ACCIDENTS	20		14		24		58	
TOTAL INJURIES	7		7		12		26	

LEGEND



MICHIGAN
STATE HIGHWAY DEPARTMENT
TRAFFIC DIVISION

TRAFFIC SIGNAL INSTALLATION
GRATIOT AVE. (U.S. 25)

AT RUSSELL

CITY OF DETROIT WAYNE CO.

MAINTAINING AGENCY CITY OF DETROIT

PARTICIPATION	
STATE	50%
COUNTY OF	%
TOWNSHIP	%
CITY OR VILLAGE	%
CITY OF DETROIT	50%

POWER PUBLIC LIGHTING COMMISSION
COMPANY
ENGINEER L. AKEY.

67 w 5m 2s	WATTS
POWER 2396	2520 - CYCLIC
CONSUMPTION	STEADY ST. LIGHTING

SUPPORTING STRUCTURES
PROPERTY OF P.L.C.

COMPLETED DATE
INSPECTED DATE
SIGNATURE

ENGINEER C. BAPPERT	DRAWN M. ST. G
DATE 4-4-66	SCALE 1" = 30'
AUTH. NO. 06130	SHEET OF
PLAN 82072-01-011	

3. M-3 (Gratiot) at M-53 (Van Dyke) C.S. 82072, M.P. 3.86

Geometric and Operational Characteristics

M-3 (Gratiot) is a northeast-southwest, nine-lane, two-way roadway with a center lane for left turns although left turns are not allowed at the intersection. M-53 (Van Dyke) is a four-lane, two-way roadway near M-3 (Gratiot) then widens to a seven-lane, two-way roadway about a half-mile from M-3.

This intersection is controlled by a traffic signal operating on a 90-second cycle during peak hours with almost a 50/50 split for both Gratiot and VanDyke. There is a 1.5 second all red. The flasher schedule is 1 a.m. to 5:30 a.m. daily. No left turns are allowed from Gratiot to Van Dyke. The 1987 ADT on Gratiot is 37,600 and on Van Dyke 16,600 with a posted speed limit of 35 mph on Gratiot.

Accident Summary

A total of 132 accidents with 85 injuries and one fatality occurred at this intersection between 1985-1987. Right-angle accidents accounted for 36 (27 percent) and rear-end accidents accounted for 50 (38 percent) of the total accidents. Violators causing right-angle accidents were approximately equal between both directions on Gratiot and also Van Dyke north of Gratiot. Rear-end accidents were equally divided between both directions on Gratiot with a few on Van Dyke. Very few angles occurred during the flasher schedule.

Recommendation

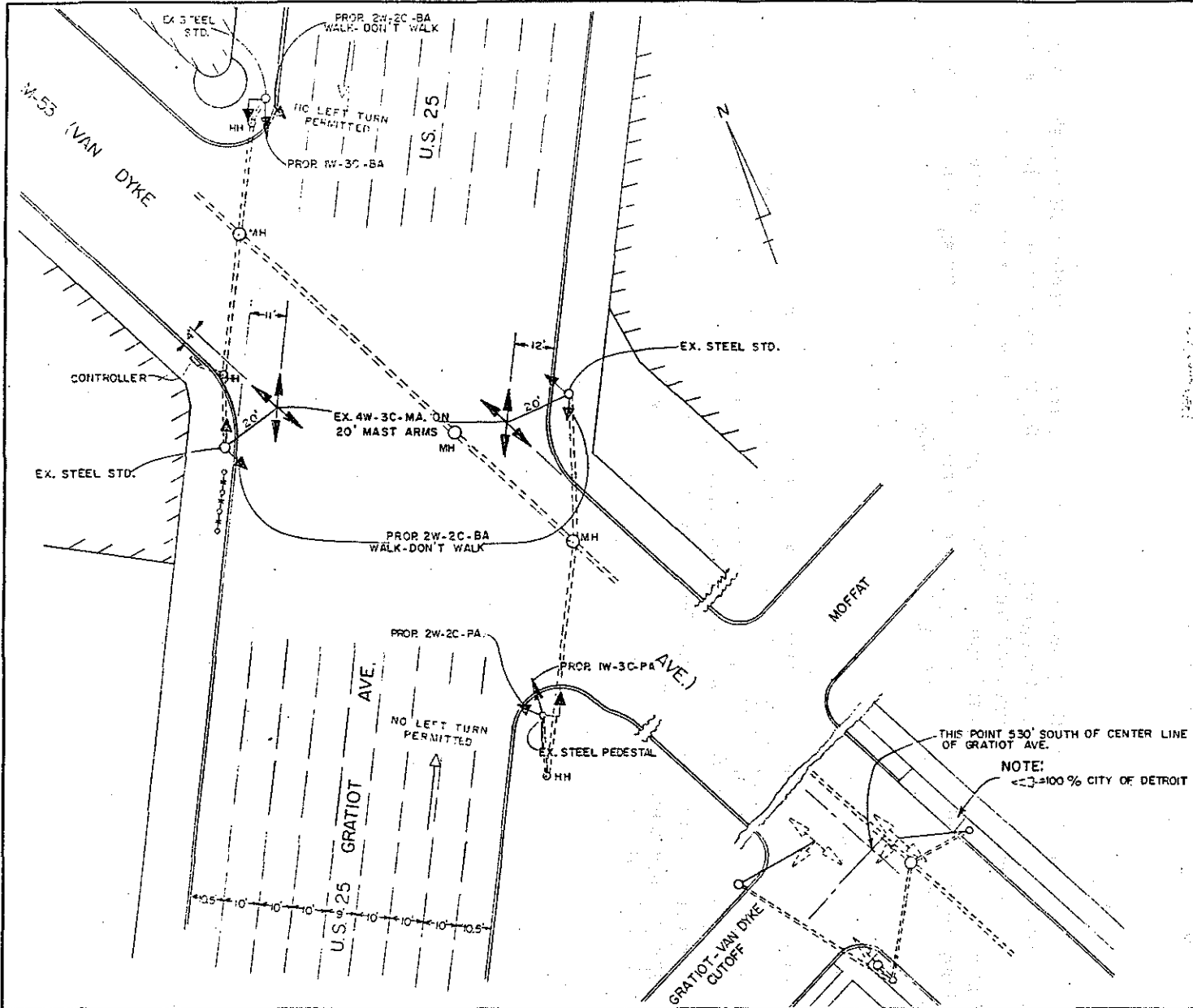
The traffic signal timing permit indicates almost an even split of 40 seconds green time on Gratiot and 39 seconds on Van Dyke. A capacity analysis revealed about 300 vehicles per lane (900 vehicles) on Gratiot during the peak hour (4 to 5 p.m.) and 150 vehicles (300 vehicles) per lane on Van Dyke. After a field check of the timing for this signal, Electronic Systems Unit has agreed to allow more green time on Gratiot since it has the highest ADT. This should increase the capacity on Gratiot and help reduce accidents.

Q/430/74

MICHIGAN DEPARTMENT OF TRANSPORTATION
SUMMARY OF ACCIDENT CHARACTERISTICS

LOCATION: M-3 (GRATIOT) AT M-53 (VAN DYKE)
82072 03.820-03.890,82151 00.000-00.020

TYPE OF ACCIDENT	1985		1986		1987		NO.	%	TOTAL	
	NO.	%	NO.	%	NO.	%			NO.	%
LEFT TURN - SAME DIRECTION	1	2	1	2	1	3			3	2
OPPOSING LEFT TURN	3	6	7	14	4	12			14	11
REAR-END	22	44	16	33	12	36			50	38
ANGLE	12	24	12	24	12	36			36	27
SIDESWIPE	6	12	1	2	0	0			7	5
PEDESTRIAN	2	4	5	10	1	3			8	6
HEAD-ON	0	0	2	4	0	0			2	2
DRIVEWAY-RELATED	0	0	0	0	0	0			0	0
FIXED OBJECT	0	0	2	4	2	6			4	3
OTHERS	4	8	3	6	1	3			8	6
PAVEMENT CONDITION										
WET	12	24	13	27	9	27			34	26
DRY	33	66	33	67	23	70			89	67
SNOWY-ICY	4	8	1	2	1	3			6	5
LIGHT CONDITION										
DAY	33	66	38	78	21	64			92	70
DAWN OR DUSK	3	6	1	2	1	3			5	4
NIGHT	13	26	9	18	11	33			33	25
ACCIDENT SEVERITY										
FATAL ACCIDENTS (NO. OF PERSONS)	1	2	0	0	0	0			1	1
	1		0		0				1	
INJURY ACCIDENTS (NO. OF PERSONS)	20	40	20	41	14	42			54	41
	34		27		22				83	
PROPERTY DAMAGE ONLY	29	58	29	59	19	58			77	58
TOTAL ACCIDENTS	50		49		33				132	
TOTAL INJURIES	36		27		22				85	



LEGEND

MICHIGAN STATE HIGHWAY DEPARTMENT	
TRAFFIC DIVISION	
TRAFFIC SIGNAL INSTALLATION	
GRATIOT AVE. (U.S. 25)	
AT M-53(VAN DYKE AVE.)	
CITY OF DETROIT	WAYNE CO.
MAINTAINING CITY OF DETROIT AGENCY	
PARTICIPATION	
STATE	75%
COUNTY OF	%
TOWNSHIP	%
CITY OR VILLAGE	%
CITY OF DETROIT	25%
POWER COMPANY	P. L. C. ENGINEER L. AKEY
POWER CONSUMPTION	WATTS 2760 - CYCLIC ST. LIGHTING
SUPPORTING STRUCTURES PROPERTY OF P. L. C.	
COMPLETED <input type="checkbox"/>	INSPECTED <input type="checkbox"/> DATE
SIGNATURE	
ENGINEER C. BAERT	DRAWN HLR
DATE 4-4-66	SCALE 1" = 30'
AUTH. NO. 66107	SHEET 1 OF 1
PLAN 82072-01-023	

82072-01-023

4. M-3 (Gratiot) at McClellan C.S. 82072, M.P. 04.73

Geometric and Operational Characteristics

M-3 (Gratiot) is a northeast-southwest nine-lane, two-way roadway with a center lane for left turns. McClellan is a two-lane, two-way local road that intersects Gratiot at a skewed angle. This intersection is controlled by traffic and pedestrian signals operating on a 90-second cycle during peak hours with approximately a 70/30 split. The flasher schedule operates from 1 a.m. to 5:30 a.m. daily.

Accident Summary

A total of 82 accidents with 52 injuries occurred at this intersection during the three-year period 1985 to 1987. Rear-end accidents accounted for 39 (48 percent) of the total accidents. Northeastbound Gratiot accounted for about 22 rear-ends and southwest Gratiot accounted for about 12 rear-ends. Southbound McClellan had one rear-end. A review of some of the accident reports indicated that one of the rear-ends occurred at the signal at the I-94 service drive about 200 feet north of McClellan and two coded as rear-ends were not actually rear-ends.

Recommendations

The existing traffic signal equipment was modernized in 1983, including solid state controller and a time base coordinator for interconnect. Because Gratiot is 88 feet wide the pedestrian signals control the timing. "Flash Don't Walk" indication on McClellan is given 22.9 seconds to clear Gratiot for pedestrians. During the peak hour (4:15 to 5:15 p.m.), Gratiot handles 3,188 vehicles northbound in three lanes and McClellan handles 152 vehicles in two lanes. The split is approximately 70/30. A pedestrian count will be conducted to determine if it is feasible to install a pedestrian push button in order to allot more green time to Gratiot from the McClellan green interval.

Q/430/74

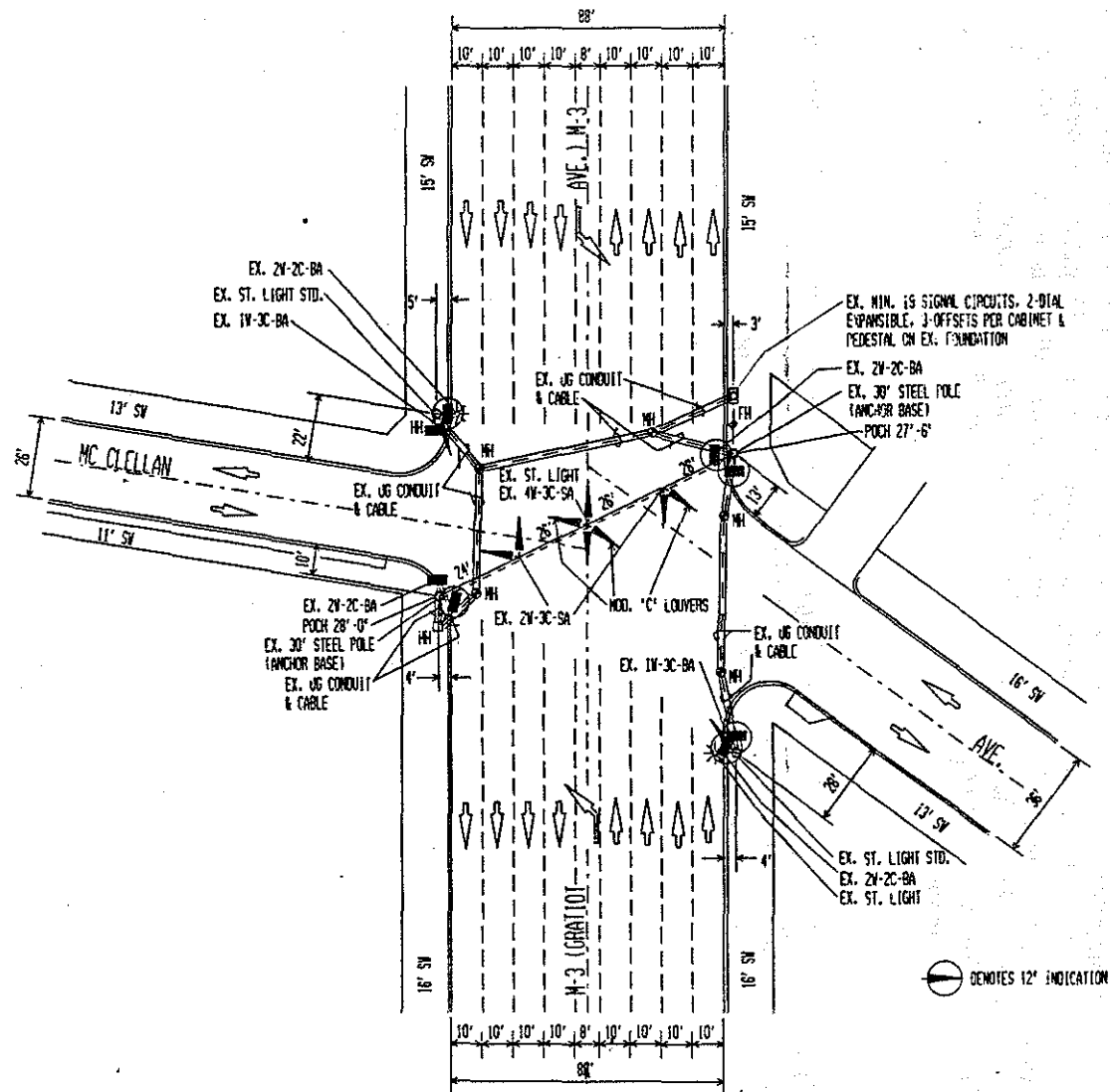
MICHIGAN DEPARTMENT OF TRANSPORTATION
SUMMARY OF ACCIDENT CHARACTERISTICS

DATE RANGE: 1/01/85 - 12/31/87

LOCATION: M-3 (GRATIOT) AT MCCLELLAN

82072 04.700-04.750

TYPE OF ACCIDENT	1985		1986		1987		NO.	%	TOTAL	
	NO.	%	NO.	%	NO.	%			NO.	%
LEFT TURN - SAME DIRECTION	0	0	0	0	0	0			0	0
OPPOSING LEFT TURN	2	13	3	9	6	18			11	13
REAR-END	7	44	17	50	16	48			40	48
ANGLE	1	6	10	29	6	18			17	20
SIDESWIPE	1	6	0	0	0	0			1	1
PEDESTRIAN	0	0	1	3	1	3			2	2
HEAD-ON	1	6	1	3	1	3			3	4
DRIVEWAY-RELATED	0	0	0	0	1	3			1	1
FIXED OBJECT	1	6	0	0	0	0			1	1
OTHERS	3	19	2	6	2	6			7	8
PAVEMENT CONDITION										
WET	2	13	10	29	11	33			23	28
DRY	11	69	23	68	20	61			54	65
SNOWY-ICY	3	19	1	3	1	3			5	6
LIGHT CONDITION										
DAY	13	81	21	62	21	64			55	66
DAWN OR DUSK	0	0	1	3	0	0			1	1
NIGHT	3	19	12	35	12	36			27	33
ACCIDENT SEVERITY										
FATAL ACCIDENTS (NO. OF PERSONS)	0	0	0	0	0	0			0	0
INJURY ACCIDENTS (NO. OF PERSONS)	7	44	10	29	11	33			28	34
PROPERTY DAMAGE ONLY	13		19		20				52	
TOTAL ACCIDENTS	9	56	24	71	22	67			55	66
TOTAL INJURIES	16		34		33				83	
TOTAL INJURIES	13		19		20				52	



STATE OF MICHIGAN DEPARTMENT OF STATE HIGHWAYS TRAFFIC AND SAFETY DIVISION	
TRAFFIC SIGNAL INSTALLATION M-3 (GRATIOT AVE.) & MC CLELLAN AVE.	
CITY OF DETROIT	WAYNE CO.
INSTALLATION PARTICIPATION	
STATE	50 %
COUNTY OF	%
TOWNSHIP OF	%
CITY OF DETROIT	50 %
POWER COMPANY	PUBLIC LIGHTING COMM.
ENGINEER	
POWER CONSUMPTION	
CYCLIC WATTS	64 x 150w 2alls 3240 - 9146
STEADY WATTS	
NO. OF ST. LIGHTS	
COMPLETED	
INSPECTED	
SIGNATURE	
ENGINEER OR TECHNICIAN H. SCHROEPKE	DRAWN MDL
DATE 6-24-78	SCALE 1"=40'
AUTH. NO.	SHEET OF
PLAN 82072-01-026	

5. M-3 (Gratiot) at Harper Avenue, Detroit
C.S. 82072, M.P. 4.93

Geometric and Operational Characteristics

M-3 (Gratiot) is a northeast-southwest seven-lane, two-way roadway with a center lane for left turns, though no left turns are allowed at the intersection from Gratiot. The outside lanes are 22 feet wide southbound and 20 feet northbound (see drawing). This intersection is controlled by traffic and pedestrian signals operating on a 90-second cycle with a 68/32 split for 24 hours daily. In the northbound direction back to back yellow clearance time exists for the near and far signals.

Accident Summary

A total of 149 accidents with 70 injuries occurred at this intersection during the three-year period 1985 to 1987. Rear-end accidents accounted for 64 (43 percent), head-on left-turn - 16 (11 percent) and angle - 34 (23 percent). Rear-end collisions were evenly split between the Gratiot approaches. Head-on left-turn accidents mainly occurred from vehicles turning from Harper. The accident reports indicate right-of-way violations causing the angle accidents were on both approaches of Gratiot.

Recommendation

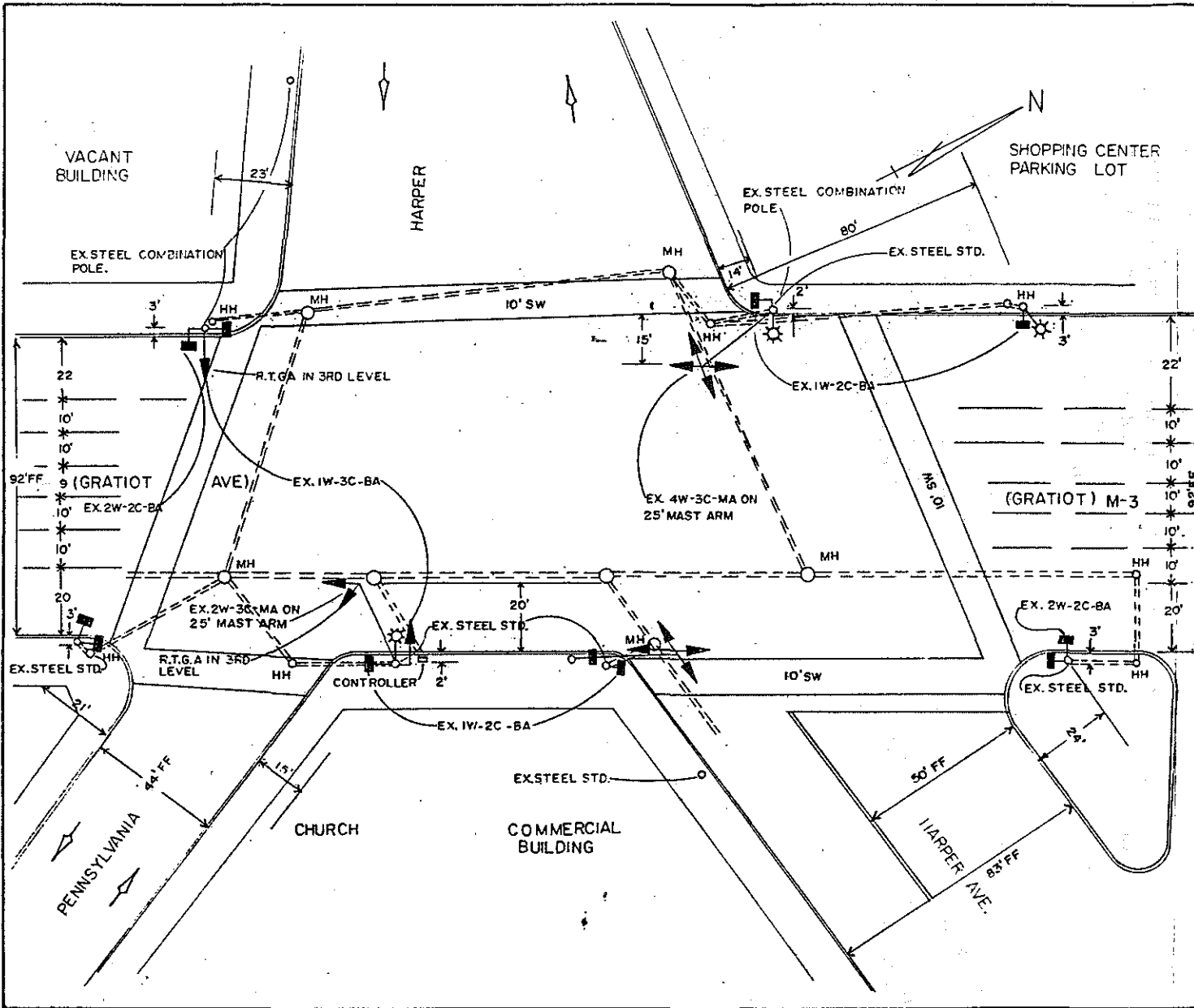
The Electronic Systems Unit has agreed to study this intersection for a complete modernization project (dependent on availability of funds) including the addition of an additional signal head and the repositioning of the signal heads.

MICHIGAN DEPARTMENT OF TRANSPORTATION
SUMMARY OF ACCIDENT CHARACTERISTICS

LOCATION: M-3 AT HARPER
82072 04.890-04.930

TYPE OF ACCIDENT	1985		1986		1987		NO.	%	TOTAL	
	NO.	%	NO.	%	NO.	%			NO.	%
LEFT TURN - SAME DIRECTION	1	2	2	4	2	5			5	3
OPPOSING LEFT TURN	8	14	5	10	3	7			16	11
REAR-END	24	43	21	40	19	46			64	43
ANGLE	13	23	11	21	10	24			34	23
SIDESWIPE	3	5	1	2	1	2			5	3
PEDESTRIAN	0	0	2	4	1	2			3	2
HEAD-ON	0	0	1	2	0	0			1	1
DRIVEWAY-RELATED	1	2	4	8	1	2			6	4
FIXED OBJECT	1	2	1	2	0	0			2	1
OTHERS	5	9	4	8	4	10			13	9
PAVEMENT CONDITION										
WET	15	27	14	27	14	34			43	29
DRY	35	63	38	73	24	59			97	65
SNOWY-ICY	6	11	0	0	3	7			9	6
LIGHT CONDITION										
DAY	41	73	36	69	28	68			105	70
DAWN OR DUSK	4	7	0	0	1	2			5	3
NIGHT	11	20	16	31	12	29			39	26
ACCIDENT SEVERITY										
FATAL ACCIDENTS (NO. OF PERSONS)	0	0	0	0	0	0			0	0
INJURY ACCIDENTS (NO. OF PERSONS)	23	41	15	29	12	29			50	34
PROPERTY DAMAGE ONLY	30		19		21				70	
TOTAL ACCIDENTS	56		52		41				149	
TOTAL INJURIES	30		19		21				70	

REVISIONS



AS BUILT 3-2-83	
STATE OF MICHIGAN DEPARTMENT OF STATE HIGHWAYS AND TRANSPORTATION	
TRAFFIC SIGNAL INSTALLATION M-3 (GRATIOT AVE.) AT HARPER AVE. CITY OF DETROIT WAYNE CO.	
INSTALLATION PARTICIPATION	
STATE	40%
COUNTY OF	%
TOWNSHIP	%
CITY OF DETROIT	60%
POWER - PUBLIC LIGHTING COMM. COMPANY ENGINEER	
POWER CONSUMPTION	
CYCLIC WATTS	3864
STEADY WATTS	
NO. OF ST. LIGHTS	
COMPLETED	<input type="checkbox"/> DATE
INSPECTED	<input type="checkbox"/> DATE
SIGNATURE	
ENGINEER J. KILEN	DRAWN ICC
DATE 3-2-83	SCALE 1" = 30'
AUTH. NO.	SHEET OF
PLAN 82072-01-027	

6. M-3 (Gratiot) at French Road C.S. 82072, M.P. 05.50

Geometric and Operational Characteristics

M-3 (Gratiot) is a north-south, seven-lane, two-way roadway with a center lane for left turns, although no left turns are allowed at the intersection. The signing indicating no left turns allowed is mounted on poles on the sidewalk. French Road is a two-lane, two-way roadway on the east approach and a three-lane road on the west approach with two lanes eastbound and one lane westbound. This intersection is controlled by traffic and pedestrian signals operating on a 90-second cycle full time. This two-phase signal with a 66/34 split has an "all red" phase following the French Road green phase.

Accident Summary

A total of 94 accidents with 47 injuries occurred at this intersection during the three-year period 1985 to 1987. Rear-end accidents accounted for 55 (59 percent). Thirty-five occurred on southbound Gratiot and 20 on northbound Gratiot. There were also three or four accidents on French Road coded as "other." The percentage of rear-end accidents occurring during wet pavement conditions were under the district average.

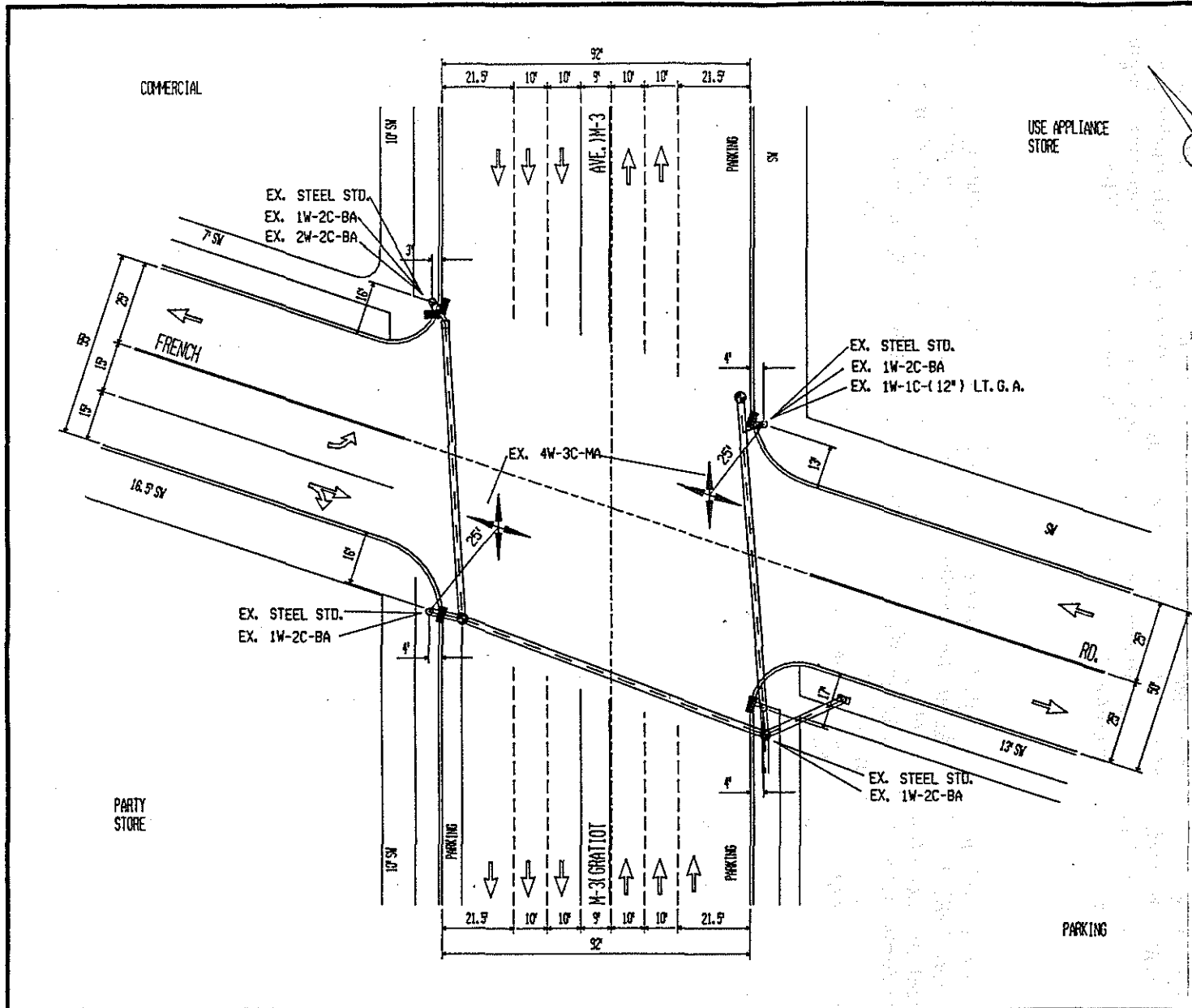
Recommendation

Since the split is controlled by the "Flash Don't Walk" pedestrian indication for crossing Gratiot, Electronic Systems Unit has agreed to study the timing to see if more green time can be allocated to Gratiot because the ADT (32,400) is much higher than the ADT on French Road and also to check the signal progression timing. If it is possible to adjust the timing this should help reduce the rear-end accidents.

MICHIGAN DEPARTMENT OF TRANSPORTATION
SUMMARY OF ACCIDENT CHARACTERISTICS

LOCATION: M-3 FRENCH RD.
82072 05.490-05.670

TYPE OF ACCIDENT	1985		1986		1987		NO.	%	TOTAL	
	NO.	%	NO.	%	NO.	%			NO.	%
LEFT TURN - SAME DIRECTION	0	0	0	0	0	0			0	0
OPPOSING LEFT TURN	0	0	2	6	1	4			3	3
REAR-END	18	53	20	63	17	61			55	59
ANGLE	5	15	4	13	6	21			15	16
SIDESWIPE	1	3	2	6	0	0			3	3
PEDESTRIAN	0	0	0	0	0	0			0	0
HEAD-ON	3	9	0	0	0	0			3	3
DRIVEWAY-RELATED	1	3	0	0	1	4			2	2
FIXED OBJECT	2	6	0	0	1	4			3	3
OTHERS	4	12	4	13	2	7			10	11
PAVEMENT CONDITION										
WET	6	18	7	22	10	36			23	24
DRY	23	68	25	78	16	57			64	68
SNOWY-ICY	5	15	0	0	2	7			7	7
LIGHT CONDITION										
DAY	24	71	23	72	18	64			65	69
DAWN OR DUSK	3	9	2	6	0	0			5	5
NIGHT	7	21	7	22	10	36			24	26
ACCIDENT SEVERITY										
FATAL ACCIDENTS (NO. OF PERSONS)	0	0	0	0	0	0			0	0
INJURY ACCIDENTS (NO. OF PERSONS)	10	29	13	41	8	29			31	33
PROPERTY DAMAGE ONLY	24	71	19	59	20	71			63	67
TOTAL ACCIDENTS	34		32		28				94	
TOTAL INJURIES	21		16		10				47	



DEPARTMENT OF TRANSPORTATION	
TRAFFIC SIGNAL INSTALLATION	
M-3 GRATIOT AVE. AT FRENCH RD. DETROIT WAYNE Co.	
INSTALLATION PARTICIPATION	
STATE	50%
COUNTY OF	X
CITY OF DETROIT	50%
F. H. W. A.	X
POWER	
COMPANY P.L.C.	
ENGINEER L. AKEY	
POWER CONSUMPTION	
CYCLIC WATTS	2910
STEADY WATTS	
NO. OF ST. LIGHTS	
COMPLETED	
INSPECTED	
SIGNATURE	
ENGINEER OR TECHNICIAN M. F. ANDERSON	DRAWN LW
DATE 03-31-85	SCALE 1"=30'
AUTH. NO.	SHEET OF
PLAN	
82072-01-028	

7. M-3 (Gratiot) at Conner Road
C.S. 82072, M.P. 5.86

Geometric and Operational Characteristics

M-3 (Gratiot) is a northeast-southwest, seven-lane, two-way roadway with a center lane for left turns, although no left turns are allowed at the intersection. The northeastbound center lane is signed for a reversible lane usage between 3 p.m. to 6 p.m. which will be removed. Conner Road is a six-lane, two-way roadway with no left turns allowed. This intersection is controlled by traffic and pedestrian signals operating on a 90-second cycle during peak hours and a 60-second cycle during off-peak hours. This signal is basically a two-phase signal with clearance time for Promenade Street which is near the intersection. There is an "all red" phase following the Conner Road green phase.

Accident Summary

A total of 147 accidents with 57 injuries occurred at this intersection during the three-year period 1985 to 1987. Angle type collisions accounted for 36 (23 percent) and rear-end accidents accounted for 68 (44 percent) of the total. Violators involved in right-angle accidents included 17 on Conner Road and 19 on Gratiot. Conner Road experienced 11 rear-end and Gratiot 57 rear-end accidents. During 1988 to November 30 there occurred 33 rear-end accidents. The percentage of rear-end accidents occurring during wet pavement conditions was comparable to the district-wide average.

Recommendation

The Electronic Systems Unit has agreed to review this intersection for possible future modernization.

Q/430/74

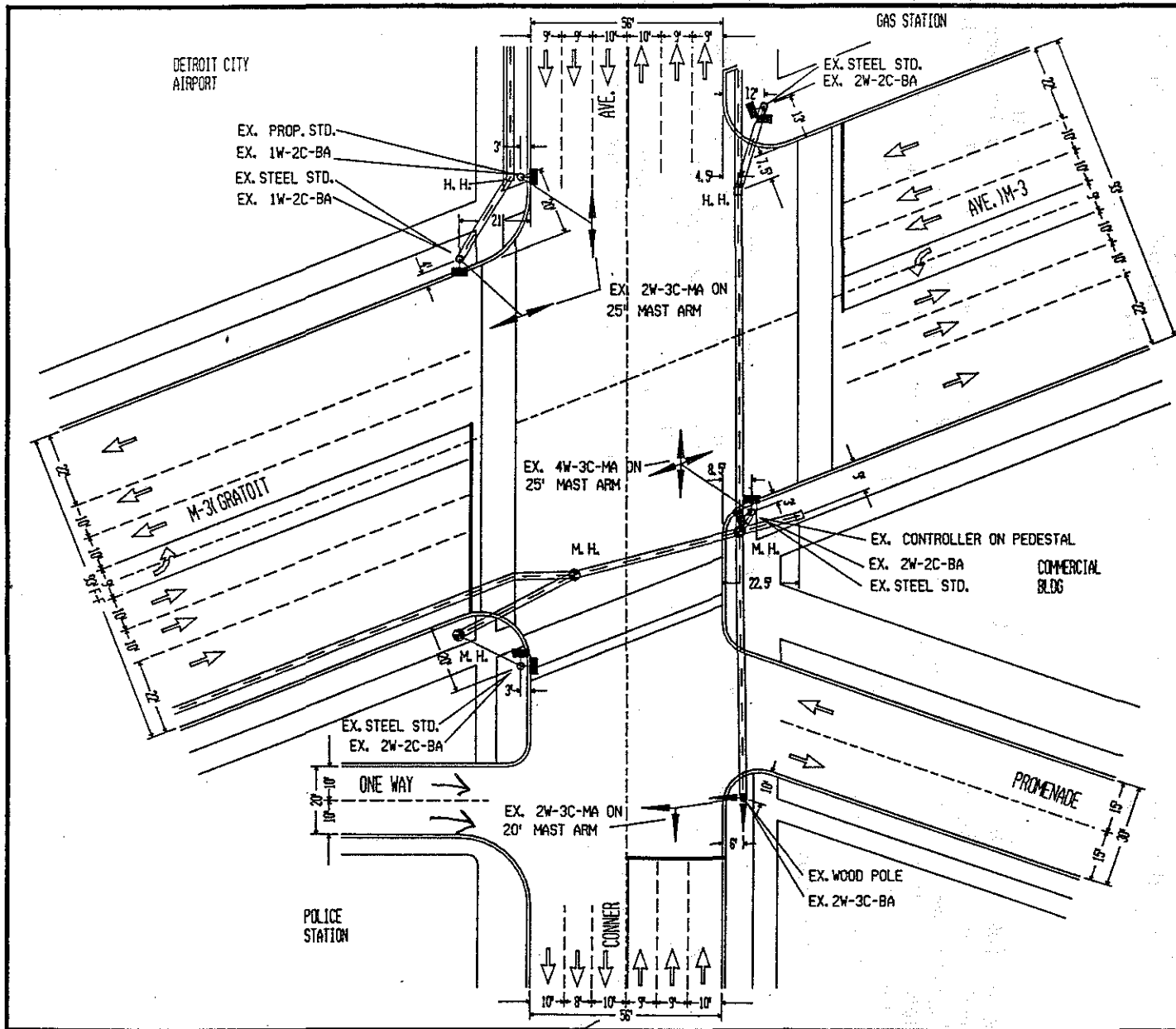
MICHIGAN DEPARTMENT OF TRANSPORTATION
SUMMARY OF ACCIDENT CHARACTERISTICS

DATE RANGE: 1/01/85 - 12/31/87

LOCATION: M-3 (GRATIOT) AT CONNER

82072 05.850-05.920

TYPE OF ACCIDENT	1985		1986		1987		NO.	%	TOTAL	
	NO.	%	NO.	%	NO.	%			NO.	%
LEFT TURN - SAME DIRECTION	0	0	3	5	0	0			3	2
OPPOSING LEFT TURN	1	2	2	3	2	4			5	3
REAR-END	20	44	25	42	23	46			68	44
ANGLE	10	22	12	20	14	28			36	23
SIDESWIPE	6	13	2	3	2	4			10	6
PEDESTRIAN	2	4	2	3	2	4			6	4
HEAD-ON	2	4	1	2	0	0			3	2
DRIVEWAY-RELATED	0	0	1	2	1	2			2	1
FIXED OBJECT	0	0	3	5	2	4			5	3
OTHERS	4	9	8	14	4	8			16	10
PAVEMENT CONDITION										
WET	13	29	15	25	15	30			43	28
DRY	28	62	43	73	34	68			105	68
SNOWY-ICY	4	9	1	2	1	2			6	4
LIGHT CONDITION										
DAY	26	58	38	64	30	60			94	61
DAWN OR DUSK	1	2	2	3	2	4			5	3
NIGHT	18	40	19	32	18	36			55	36
ACCIDENT SEVERITY										
FATAL ACCIDENTS (NO. OF PERSONS)	0	0	0	0	0	0			0	0
INJURY ACCIDENTS (NO. OF PERSONS)	12	27	16	27	18	36			46	30
PROPERTY DAMAGE ONLY	33	73	43	73	32	64			108	70
TOTAL ACCIDENTS	45		59		50				154	
TOTAL INJURIES	17		17		25				59	



DEPARTMENT OF TRANSPORTATION	
TRAFFIC SIGNAL INSTALLATION M-3 GRATIOT AVE. AT CONNER AVE. DETROIT WAYNE	
INSTALLATION PARTICIPATION	
STATE	50 %
COUNTY OF	%
CITY OF DETROIT	50 %
F. H. W. A.	%
POWER COMPANY PUBLIC LIGHTING CO. INC. ENGINEER L. LAKEY	
POWER CONSUMPTION	
CYCLIC WATTS	3036
STEADY WATTS	
NO. OF ST. LIGHTS	
COMPLETED	
INSPECTED	
SIGNATURE _____	
ENGINEER OR TECHNICIAN H. F. ANDERSON	DRAWN LW
DATE 4-7-85	SCALE 01" = 30'
AUTH. NO.	SHEET OF
PLAN 82072-01-029	

8. M-3 (Gratiot) at McNichols (6 Mile Road) and Seymour
C.S. 82072, M.P. 07.56

Geometric and Operational Characteristics

M-3 (Gratiot) is a northeast-southwest, seven-lane, two-way roadway with a center lane for left turns. McNichols (6 Mile Road) is a five-lane roadway with an eastbound center lane for left turns only. Seymour is a four-lane, two-way local street which is offset from McNichols and no left turns are allowed from Seymour between 3 to 6 p.m. This intersection is controlled by traffic and pedestrian signals operating on a 90-second cycle during peak hours and a 60-second cycle during off-peak hours. There is an eastbound McNichols left-turn green arrow that operates between 3 to 6:45 p.m., Monday through Friday. The ADT is 28,800 on Gratiot and approximately 13,000 on McNichols and Seymour.

Accident Summary

A total of 129 accidents with 56 injuries occurred at this intersection during the three-year period 1985 to 1987. Angle type collisions accounted for 35 (29 percent) and opposing left-turn's accounted for 20 (16 percent) of the total. Two angle accidents were driveway related. Violators involved in right-angle accidents included 13 from Seymour Street, four from McNichols, 11 from southbound Gratiot, and seven from northbound Gratiot. The majority of head-on left-turn violators appeared to be vehicles turning left from Seymour. Out of 12, three occurred during the left-turn prohibition.

Recommendation

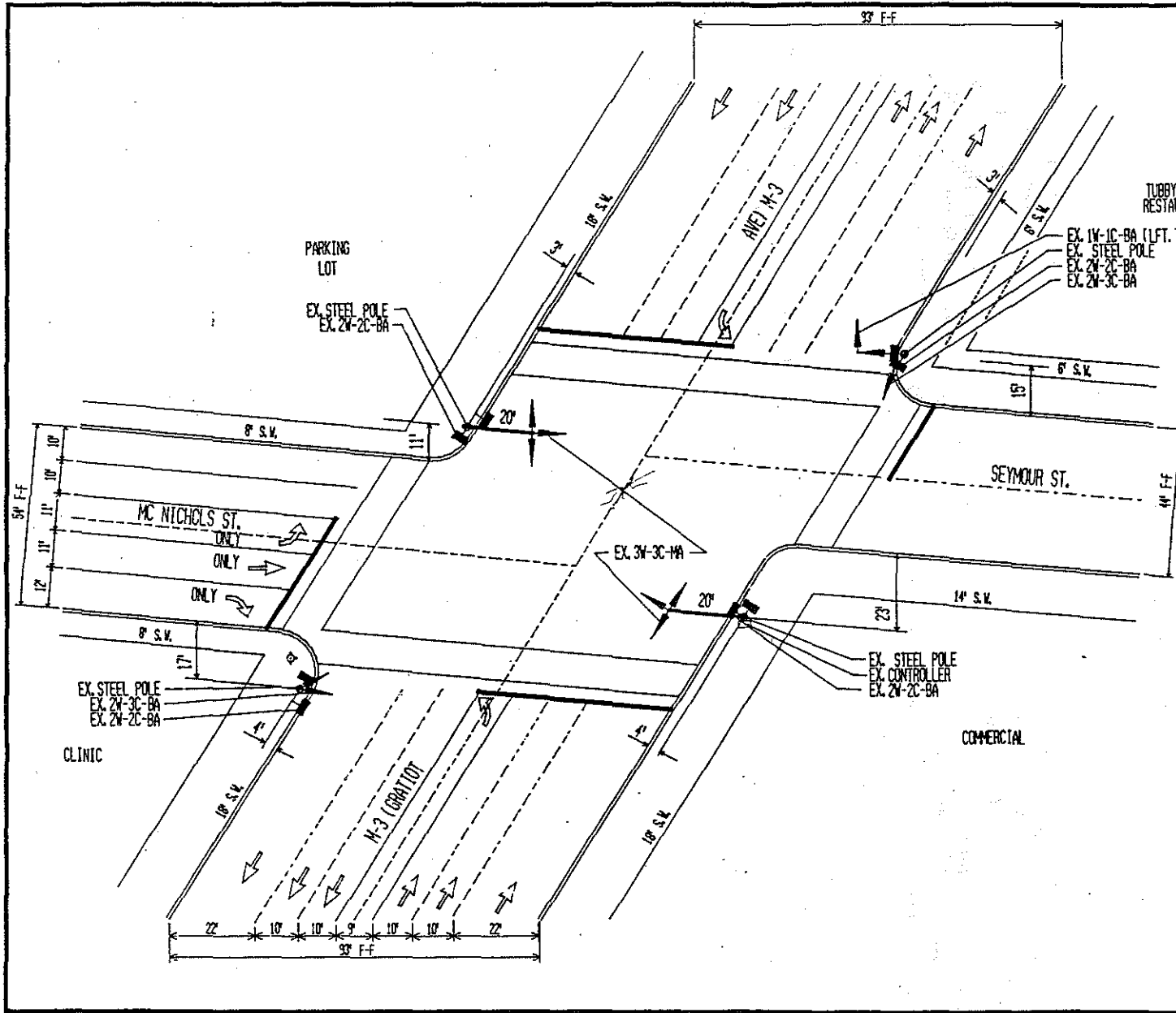
The Electronic Systems Unit has reviewed the timing permit and found it is adequate considering the "FLASH DON'T WALK" pedestrian indication controls the split. The positioning of the signals will be reviewed to see if better signal head visibility can be attained. In addition, since the majority of the violators causing angle and "Head On Left Turn" accidents enter the intersection from Seymour a field review will be conducted to determine if better sight distance can be attained by prohibiting parking on Gratiot approaching Seymour or some other means.

Q/430/74

MICHIGAN DEPARTMENT OF TRANSPORTATION
SUMMARY OF ACCIDENT CHARACTERISTICS

DATE RANGE: 1/01/85 - 12/31/87
LOCATION: M-3 (GRATIOT) AT 6 MILE RD.
82072 07.540-07.590

TYPE OF ACCIDENT	1985		1986		1987		NO.	%	TOTAL	
	NO.	%	NO.	%	NO.	%			NO.	%
LEFT TURN - SAME DIRECTION	1	2	2	5	0	0			3	2
OPPOSING LEFT TURN	5	11	7	17	8	20			20	16
REAR-END	9	19	16	38	13	33			38	29
ANGLE	15	32	9	21	13	33			37	29
SIDESWIPE	2	4	0	0	1	3			3	2
PEDESTRIAN	2	4	3	7	0	0			5	4
HEAD-ON	0	0	0	0	0	0			0	0
DRIVEWAY-RELATED	1	2	0	0	0	0			1	1
FIXED OBJECT	1	2	1	2	1	3			3	2
OTHERS	11	23	4	10	4	10			19	15
PAVEMENT CONDITION										
WET	11	23	8	19	14	35			33	26
DRY	30	64	33	79	25	63			88	68
SNOWY-ICY	5	11	1	2	1	3			7	5
LIGHT CONDITION										
DAY	29	62	26	62	27	68			82	64
DAWN OR DUSK	1	2	1	2	0	0			2	2
NIGHT	16	34	15	36	13	33			44	34
ACCIDENT SEVERITY										
FATAL ACCIDENTS (NO. OF PERSONS)	0	0	0	0	0	0			0	0
INJURY ACCIDENTS (NO. OF PERSONS)	14	30	12	29	13	33			39	30
PROPERTY DAMAGE ONLY	18		20		18				56	
TOTAL ACCIDENTS	47		42		40				129	
TOTAL INJURIES	18		20		18				56	



AS BUILT	
STATE OF MICHIGAN DEPARTMENT OF TRANSPORTATION TRAFFIC AND SAFETY DIVISION	
TRAFFIC SIGNAL INSTALLATION M-3 (GRATIOT AVE) @ MCNICHOLS & SEYMOUR STS. CITY OF DETROIT WAYNE COUNTY	
INSTALLATION PARTICIPATION	
STATE	50 %
COUNTY OF	%
CITY OF DETROIT	50 %
F. H. W. A.	%
POWER COMPANY	PUBLIC LIGHTING COMM. ENGINEER
POWER CONSUMPTION	
CYCLIC WATTS	3324
STEADY WATTS	
NO. OF ST. LIGHTS	
COMPLETED	
INSPECTED	
SIGNATURE	
ENGINEER OR TECHNICIAN M. F. ANDERSON	DRAWN MTS
DATE 2-22-83	SCALE 1"=30'
AUTH. NO.	SHEET OF
PLAN 82072-01-034	

9. M-3 (Gratiot) at 7 Mile Road
C.S. 82072, M.P. 08.19

Geometric and Operational Characteristics

M-3 (Gratiot) is a northeast-southwest, seven-lane, two-way roadway with a center lane for left turns although this intersection is signed for no left turns from Gratiot. Seven Mile Road on the east approach is a four-lane, two-way roadway and the west approach is a two-way, two-lane roadway. This intersection is controlled by traffic and pedestrian signals operating on a 90-second cycle 24 hours daily with a 67/33 split and includes a two percent "all red" phase after the Seven Mile Road clearance interval.

Accident Summary

A total of 124 accidents with 58 injuries occurred at this intersection during the three-year period 1985 to 1987. Angle type collisions accounted for 42 (34 percent) although five were driveway related. Rear-end accidents accounted for 48 (39 percent) of the total. Violators involved in right-angle accidents included nine on northbound Gratiot, eight on southbound Gratiot, 10 on eastbound Seven Mile Road, and 15 from westbound Seven Mile Road. Rear-end accidents included 13 on northbound Gratiot, 17 on southbound Gratiot, and the rest on Seven Mile Road.

Recommendation

The Electronic Systems Unit will review this location to determine if better signal head position can be attained and also study the feasibility of installing 12-inch signal lenses.

Q/430/74

MICHIGAN DEPARTMENT OF TRANSPORTATION
SUMMARY OF ACCIDENT CHARACTERISTICS

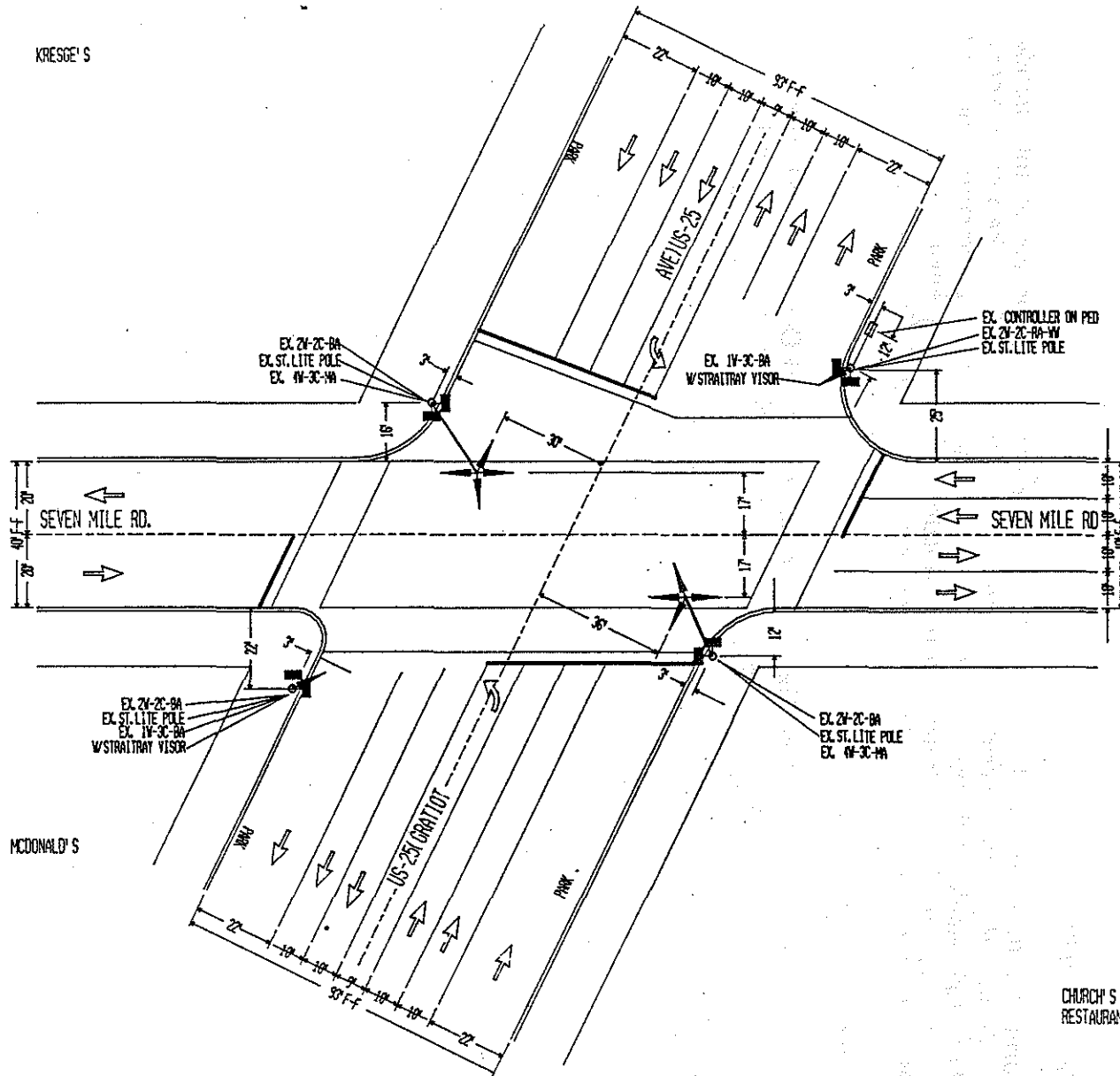
DATE RANGE: 1/01/85 - 12/31/87

LOCATION: M-3 (GRATIOT) AT 7 MILE RD.

82072 08.160-08.230

TYPE OF ACCIDENT	1985		1986		1987		NO.	%	TOTAL	
	NO.	%	NO.	%	NO.	%			NO.	%
LEFT TURN - SAME DIRECTION	1	2	0	0	1	4			2	2
OPPOSING LEFT TURN	0	0	1	2	4	15			5	4
REAR-END	19	40	20	40	9	33			48	39
ANGLE	16	34	19	38	7	26			42	34
SIDESWIPE	0	0	1	2	0	0			1	1
PEDESTRIAN	3	6	2	4	0	0			5	4
HEAD-ON	1	2	0	0	0	0			1	1
DRIVEWAY-RELATED	1	2	2	4	0	0			3	2
FIXED OBJECT	0	0	1	2	2	7			3	2
OTHERS	6	13	4	8	4	15			14	11
PAVEMENT CONDITION										
WET	11	23	13	26	9	33			33	27
DRY	30	64	37	74	17	63			84	68
SNOWY-ICY	6	13	0	0	1	4			7	6
LIGHT CONDITION										
DAY	22	47	32	64	18	67			72	58
DAWN OR DUSK	1	2	1	2	0	0			2	2
NIGHT	24	51	17	34	9	33			50	40
ACCIDENT SEVERITY										
FATAL ACCIDENTS (NO. OF PERSONS)	0	0	0	0	0	0			0	0
INJURY ACCIDENTS (NO. OF PERSONS)	17	36	17	34	4	15			38	31
PROPERTY DAMAGE ONLY	28		22		8				58	
TOTAL ACCIDENTS	47		50		27				124	
TOTAL INJURIES	28		22		8				58	

KRESGE'S



MEN'S STORE

DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION

M-31 GRATIOT AVE. I

ST SEVEN MILE RD.

CITY OF DETROIT WAYNE CO

INSTALLATION PARTICIPATION

STATE	50%
COUNTY OF WAYNE	25%
CITY OF DETROIT	25%
F. H. W. A.	%

POWER COMPANY PUBLIC LIGHTING COMMISSION
ENGINEER

POWER CONSUMPTION

CYCLIC WATTS 3174

STEADY WATTS

NO. OF ST. LIGHTS

COMPLETED

INSPECTED

SIGNATURE

ENGINEER OR TECHNICIAN
M.F. ANDERSON

DRAWN LW

DATE

SCALE 1"=30'

AUTH. NO.

SHEET 1 OF 1

PLAN

82072-01-035

CHURCH'S RESTAURANT

10. M-1 (Woodward) at Larned
C.S. 82131, M.P. 08.66

Geometric and Operational Characteristics

M-1 (Woodward) is a four-lane, two-way divided roadway except for the northbound Woodward approach to Larned which is two lanes. Larned is a four-lane, one-way eastbound roadway which becomes two lanes east of Woodward. This intersection is controlled by traffic and pedestrian signals operating during "peak" hours on a 70-second cycle. There is no "all red" interval however, there is a left-turn green arrow for southbound Woodward to eastbound Larned.

Accident Summary

During the three-year study (1985-1987), this intersection experienced 59 total accidents with 30 injuries. Right-angle accidents accounted for 49 percent (29) of the total accident history. These right-angle collisions included 23 southbound Woodward violators, one northbound Woodward, and five eastbound Larned violators. The yearly angle accident breakdown is 1985 - 12, 1986, two, 1987 - 15, and there were 16 during 1988.

Recommendation

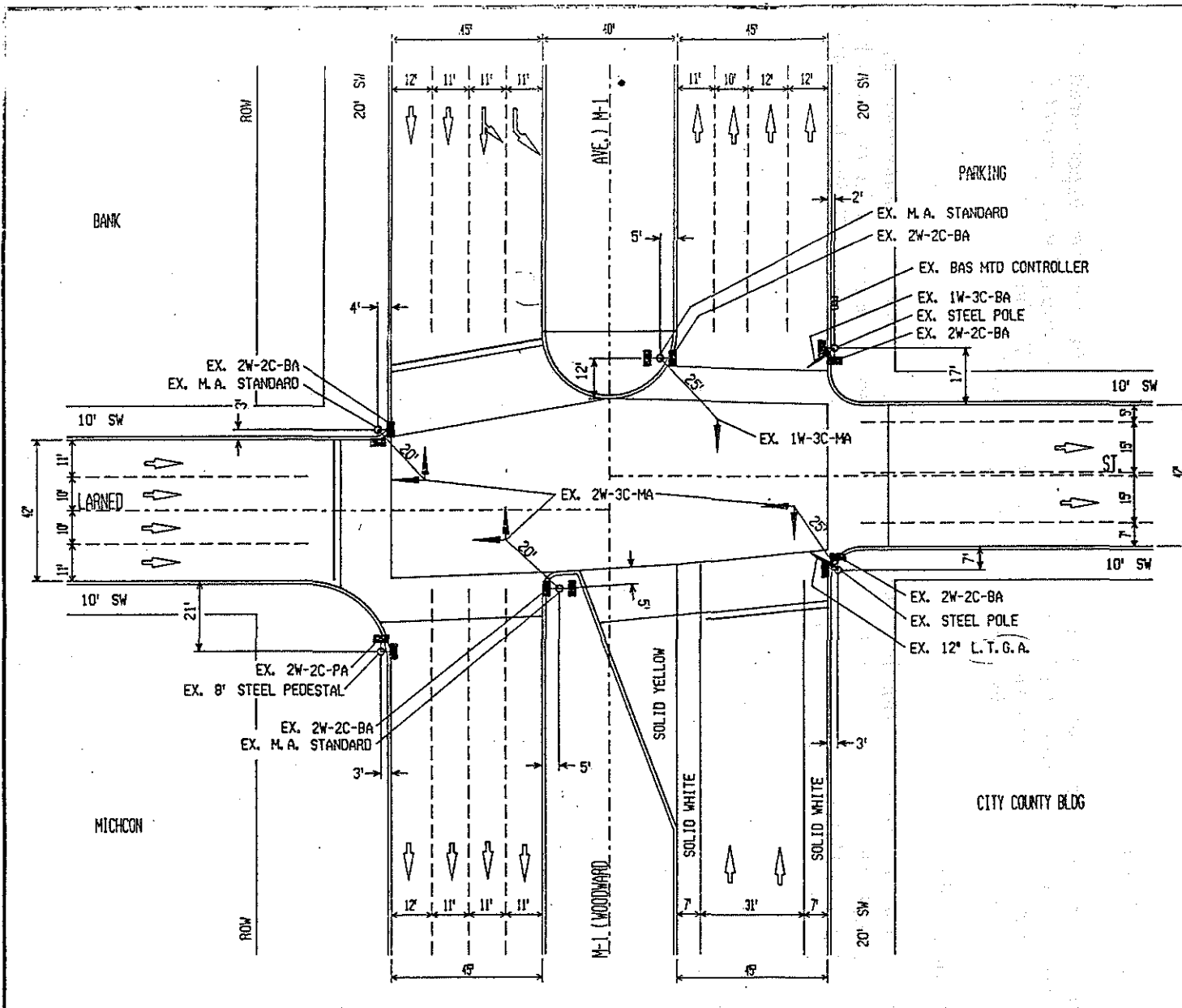
Due to the expansion of Cobo Hall over Larned the city of Detroit is modernizing this signal and several others along Larned to provide a closed loop system to prevent traffic back ups on Larned under the Cobo Hall Expansion. The signal modernization will also include new signal head controllers, etc.

Q/430/74

MICHIGAN DEPARTMENT OF TRANSPORTATION
SUMMARY OF ACCIDENT CHARACTERISTICS

LOCATION: M-1(WOODWARD) AT LARNED
82131 08.630-08.690

TYPE OF ACCIDENT	1985		1986		1987		NO.	%	TOTAL	
	NO.	%	NO.	%	NO.	%			NO.	%
LEFT TURN - SAME DIRECTION	3	13	4	36	5	21			12	20
OPPOSING LEFT TURN	0	0	0	0	0	0			0	0
REAR-END	5	21	3	27	1	4			9	15
ANGLE	12	50	2	18	15	63			29	49
SIDESWIPE	0	0	0	0	0	0			0	0
PEDESTRIAN	1	4	1	9	0	0			2	3
HEAD-ON	0	0	0	0	0	0			0	0
DRIVEWAY-RELATED	0	0	0	0	0	0			0	0
FIXED OBJECT	0	0	0	0	0	0			0	0
OTHERS	3	13	1	9	3	13			7	12
PAVEMENT CONDITION										
WET	6	25	1	9	8	33			15	25
DRY	14	58	9	82	15	63			38	64
SNOWY-ICY	4	17	0	0	1	4			5	8
LIGHT CONDITION										
DAY	13	54	9	82	12	50			34	58
DAWN OR DUSK	0	0	0	0	0	0			0	0
NIGHT	11	46	2	18	12	50			25	42
ACCIDENT SEVERITY										
FATAL ACCIDENTS (NO. OF PERSONS)	0	0	0	0	0	0			0	0
INJURY ACCIDENTS (NO. OF PERSONS)	10	42	2	18	7	29			19	32
PROPERTY DAMAGE ONLY	14	58	9	82	17	71			40	68
TOTAL ACCIDENTS	24		11		24				59	
TOTAL INJURIES	18		3		9				30	



AS BUILT	
STATE OF MICHIGAN DEPARTMENT OF TRANSPORTATION TRAFFIC AND SAFETY DIVISION	
TRAFFIC SIGNAL INSTALLATION M-1 (WOODWARD AVE) @ LARNED ST	
CITY OF DETROIT	WAYNE CO.
INSTALLATION PARTICIPATION	
STATE	50 %
COUNTY OF	%
CITY OF DETROIT	50 %
F. H. W. A.	%
POWER COMPANY	DETROIT PUBLIC LIGHTING COMM. ENGINEER
POWER CONSUMPTION	
CYCLIC WATTS	3519
STEADY WATTS	
NO. OF ST. LIGHTS	
COMPLETED	
INSPECTED	
SIGNATURE	
ENGINEER OR TECHNICIAN P. HENLEY	DRAWN MDL
DATE 12-20-82	SCALE 1"=30'
AUTH. NO.	SHEET OF
PLAN	
82131-01-051	

11. M-3 Connector (Randolph) at Larned, City of Detroit
C.S. 82132, M.P. 0.14

Geometric and Operational Characteristics

M-3 connector (Randolph) is a four-lane, two-way eastbound roadway. Larned is a two-lane, one-way eastbound roadway. There is a right-turn lane only to southbound Randolph from eastbound Larned. The intersection is controlled by traffic and pedestrian signals operating during "peak" hours on a 80-second cycle with a 48/52 split, and includes a two percent "all red" phase.

Accident Summary

During the three-year study period (1985-1987), this intersection experienced 91 total accidents with 39 injuries. Right-angle type accidents accounted for 55 percent (50) of the total accident history. These right-angle collisions included 29 southbound Randolph violators, 12 eastbound Larned and nine northbound Randolph violators.

Recommendation

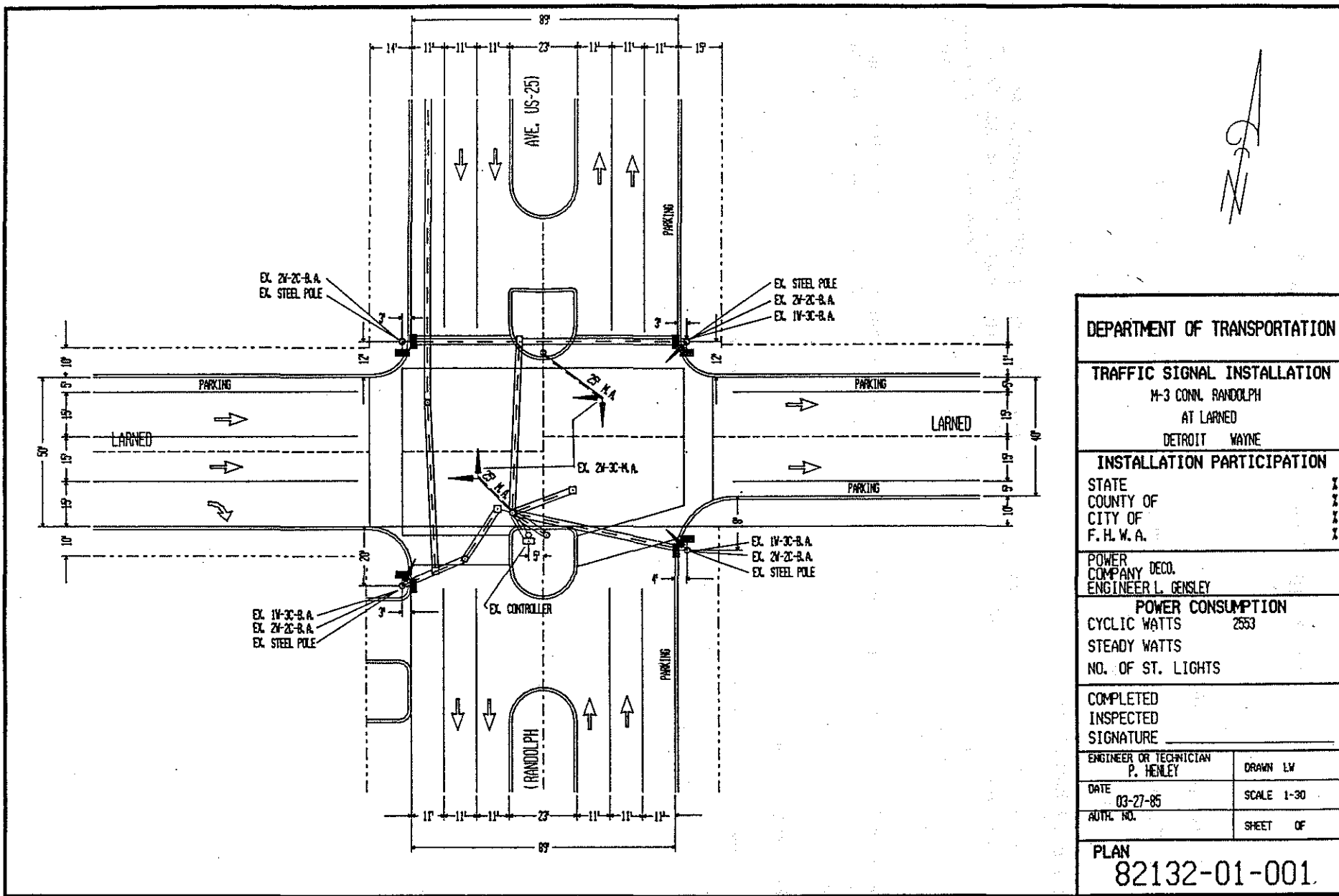
Due to the expansion of Cobo Hall near Larned the city of Detroit is modernizing this signal and several others along Larned to provide a closed loop system so traffic does not back up on Larned under Cobo Hall expansion. The signal equipment will also be modernized including new signal heads, controllers, etc.

Q/430/74

MICHIGAN DEPARTMENT OF TRANSPORTATION
SUMMARY OF ACCIDENT CHARACTERISTICS

LOCATION: M-3 CONN. AT LARNED ST.
82132 00.100-00.170

TYPE OF ACCIDENT	1985		1986		1987		NO.	%	TOTAL	
	NO.	%	NO.	%	NO.	%			NO.	%
LEFT TURN - SAME DIRECTION	1	4	2	6	1	3			4	4
OPPOSING LEFT TURN	1	4	2	6	3	9			6	7
REAR-END	7	30	4	11	4	13			15	16
ANGLE	9	39	22	61	19	59			50	55
SIDESWIPE	1	4	1	3	0	0			2	2
PEDESTRIAN	0	0	1	3	0	0			1	1
HEAD-ON	0	0	0	0	0	0			0	0
DRIVEWAY-RELATED	0	0	1	3	0	0			1	1
FIXED OBJECT	1	4	0	0	0	0			1	1
OTHERS	3	13	3	8	5	16			11	12
PAVEMENT CONDITION										
WET	8	35	7	19	2	6			17	19
DRY	15	65	28	78	28	88			71	78
SNOWY-ICY	0	0	1	3	2	6			3	3
LIGHT CONDITION										
DAY	12	52	22	61	18	56			52	57
DAWN OR DUSK	1	4	0	0	1	3			2	2
NIGHT	10	43	14	39	13	41			37	41
ACCIDENT SEVERITY										
FATAL ACCIDENTS (NO. OF PERSONS)	0	0	0	0	0	0			0	0
INJURY ACCIDENTS (NO. OF PERSONS)	6	26	8	22	7	22			21	23
PROPERTY DAMAGE ONLY	14		14		11				39	
TOTAL ACCIDENTS	23		36		32				91	
TOTAL INJURIES	14		14		11				39	



DEPARTMENT OF TRANSPORTATION	
TRAFFIC SIGNAL INSTALLATION M-3 CONN. RANDOLPH AT LARNED DETROIT WAYNE	
INSTALLATION PARTICIPATION	
STATE	X
COUNTY OF	X
CITY OF	X
F. H. W. A.	X
POWER COMPANY DECO. ENGINEER L. GENSLEY	
POWER CONSUMPTION	
CYCLIC WATTS	2553
STEADY WATTS	
NO. OF ST. LIGHTS	
COMPLETED	
INSPECTED	
SIGNATURE	
ENGINEER OR TECHNICIAN P. HENLEY	DRAWN LW
DATE 03-27-85	SCALE 1-30
AUTH. NO.	SHEET OF
PLAN 82132-01-001	

12. M-102 (Eight Mile Road) at Ryan Ave.,
Cities of Warren/Detroit, Wayne County, C.S. 82143, M.P. 3.13

Geometric and Operational Characteristics

M-102 (Eight Mile Road) runs east-west and is an eight-lane divided facility. The intersection is signalized, and the area is urbanized (signal no. 82143-6). Average daily traffic is about 105,700 and the speed limit along M-102 is 40 mph.

Accident Characteristics

This intersection appeared on the threshold review list due to 28 right-angle and 59 rear-end accidents during the study period (1985-1987). Distribution of angle accident was 16 eastbound, five westbound, three southbound, four northbound. Rear-end accidents were 41 eastbound, 14 westbound, four northbound, and no accidents on the southbound approach during the three years.

The attached "Summary of Accident Characteristics" shows yearly distribution of accidents. Accordingly, total, angle, and rear-end accidents have a downward trend for the last four years.

Recommendation

Field review revealed that all signal heads at this intersection are 12-inch size, except those for the Ryan Avenue on westbound M-102, which are eight-inch only. It is recommended to install 12-inch signal heads facing Ryan Avenue on westbound M-102.

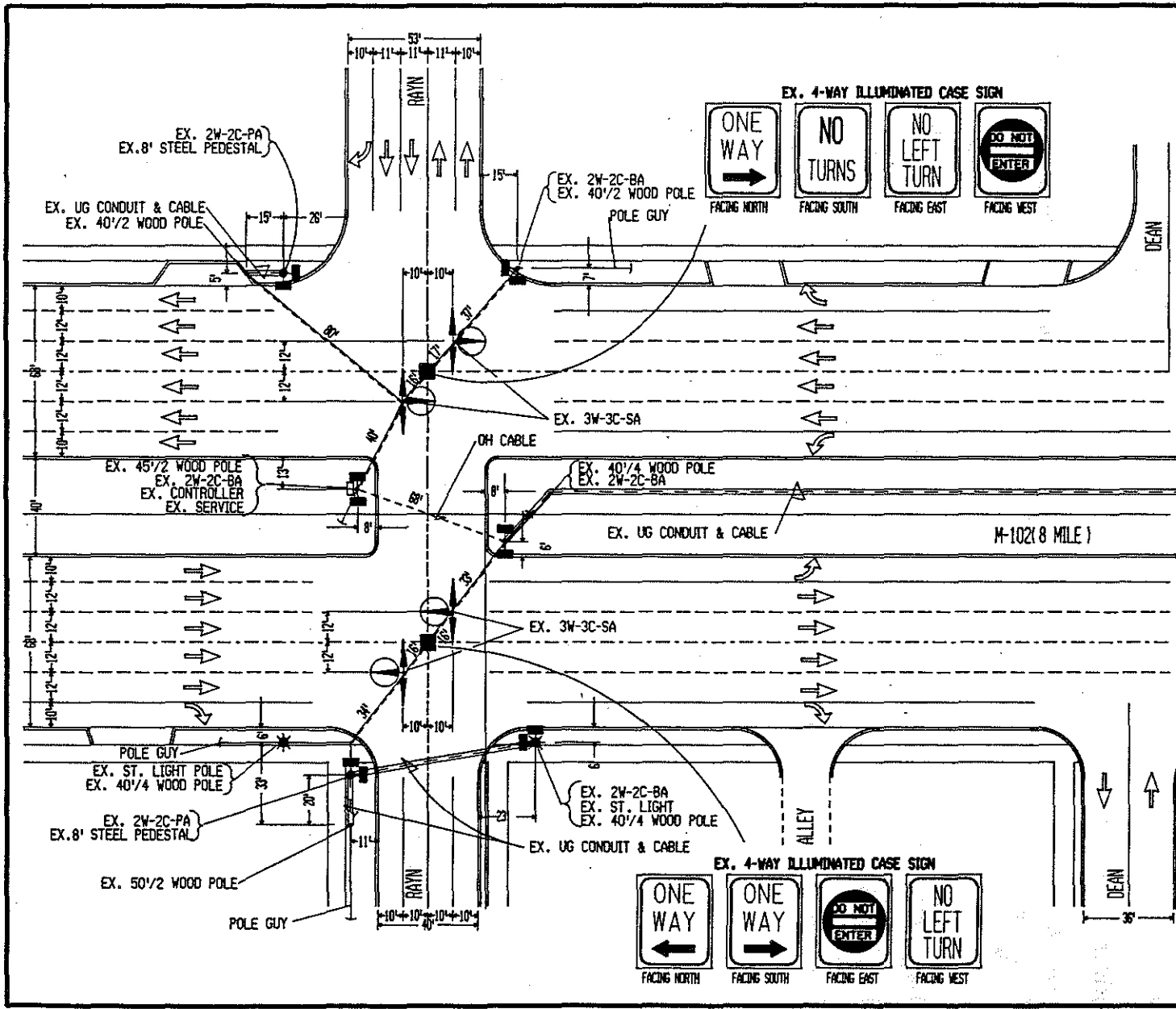
Q/430/74

MICHIGAN DEPARTMENT OF TRANSPORTATION
SUMMARY OF ACCIDENT CHARACTERISTICS

DATE RANGE: 1/01/85 - 12/31/87

LOCATION: M-102 at RYAN AVE., Warren-Detroit
82143 03.110-03.160

TYPE OF ACCIDENT	1985		1986		1987		NO.	%	TOTAL	
	NO.	%	NO.	%	NO.	%			NO.	%
LEFT TURN - SAME DIRECTION	0	0	0	0	1	4			1	1
OPPOSING LEFT TURN	1	3	0	0	0	0			1	1
REAR-END	25	63	20	69	14	52			59	61
ANGLE	12	30	9	31	7	26			28	29
SIDESWIPE	0	0	0	0	0	0			0	0
PEDESTRIAN	0	0	0	0	0	0			0	0
HEAD-ON	0	0	0	0	0	0			0	0
DRIVEWAY-RELATED	0	0	0	0	1	4			1	1
FIXED OBJECT	1	3	0	0	0	0			1	1
OTHERS	1	3	0	0	4	15			5	5
PAVEMENT CONDITION										
WET	10	25	9	31	6	22			25	26
DRY	27	68	15	52	18	67			60	63
SNOWY-ICY	2	5	5	17	3	11			10	10
LIGHT CONDITION										
DAY	16	40	17	59	16	59			49	51
DAWN OR DUSK	4	10	0	0	1	4			5	5
NIGHT	19	48	12	41	10	37			41	43
ACCIDENT SEVERITY										
FATAL ACCIDENTS (NO. OF PERSONS)	0	0	0	0	0	0			0	0
INJURY ACCIDENTS (NO. OF PERSONS)	18	45	11	38	7	26			36	38
PROPERTY DAMAGE ONLY	22	55	18	62	20	74			60	63
TOTAL ACCIDENTS	40		29		27				96	
TOTAL INJURIES	28		18		10				56	



STATE OF MICHIGAN DEPARTMENT OF TRANSPORTATION TRAFFIC & SAFETY DIVISION	
TRAFFIC SIGNAL INSTALLATION M-102 (8 MILE RD.) AT RYAN RD.	
CITY OF DETROIT & WARREN WAYNE CO.	
INSTALLATION PARTICIPATION	
STATE	Z
COUNTY OF WAYNE	Z
CITY OF WARREN	100 Z
F.H.W.A.	Z
POWER COMPANY DETROIT EDISON CO. ENGINEER L. GENSLEY	
POWER CONSUMPTION	
CYCLIC WATTS	5016
STEADY WATTS	720
NO. OF ST. LIGHTS	
COMPLETED	
INSPECTED	
SIGNATURE	
ENGINEER OR TECHNICIAN J. KROONE	DRAWN L.V.
DATE 6-30-86	SCALE 1"=40'
AUTH. NO.	SHEET OF
PLAN 82143-01-006	



13. M-102 (Eight Mile Rd) at Hayes Street
Cities of East Detroit/Detroit, Wayne County, C.S. 82144, M.P. 0.08

Geometric and Operational Characteristics

M-102 (Eight Mile Road) is an eight-lane divided facility running east-west. the intersection is signalized and the area is urbanized. Average daily traffic on M-102 is 70,700 and the speed limit is 40 mph. This is a T intersection with a mandatory right turn for northbound Hayes.

Accident Characteristics

Twenty-four right-angle accidents exceeded the threshold limit during the study period (1985-1987). Angle accidents occurred: seven eastbound, two westbound, and 10 northbound. Five angle accidents were coded under "other" direction.

A review of accident reports indicated that nine of the 10 angle accidents on northbound Hayes Street were a result of turning right on red.

Recommendation

Post a "NO TURN ON RED" sign for the Hayes Street traffic.

Q/430/74

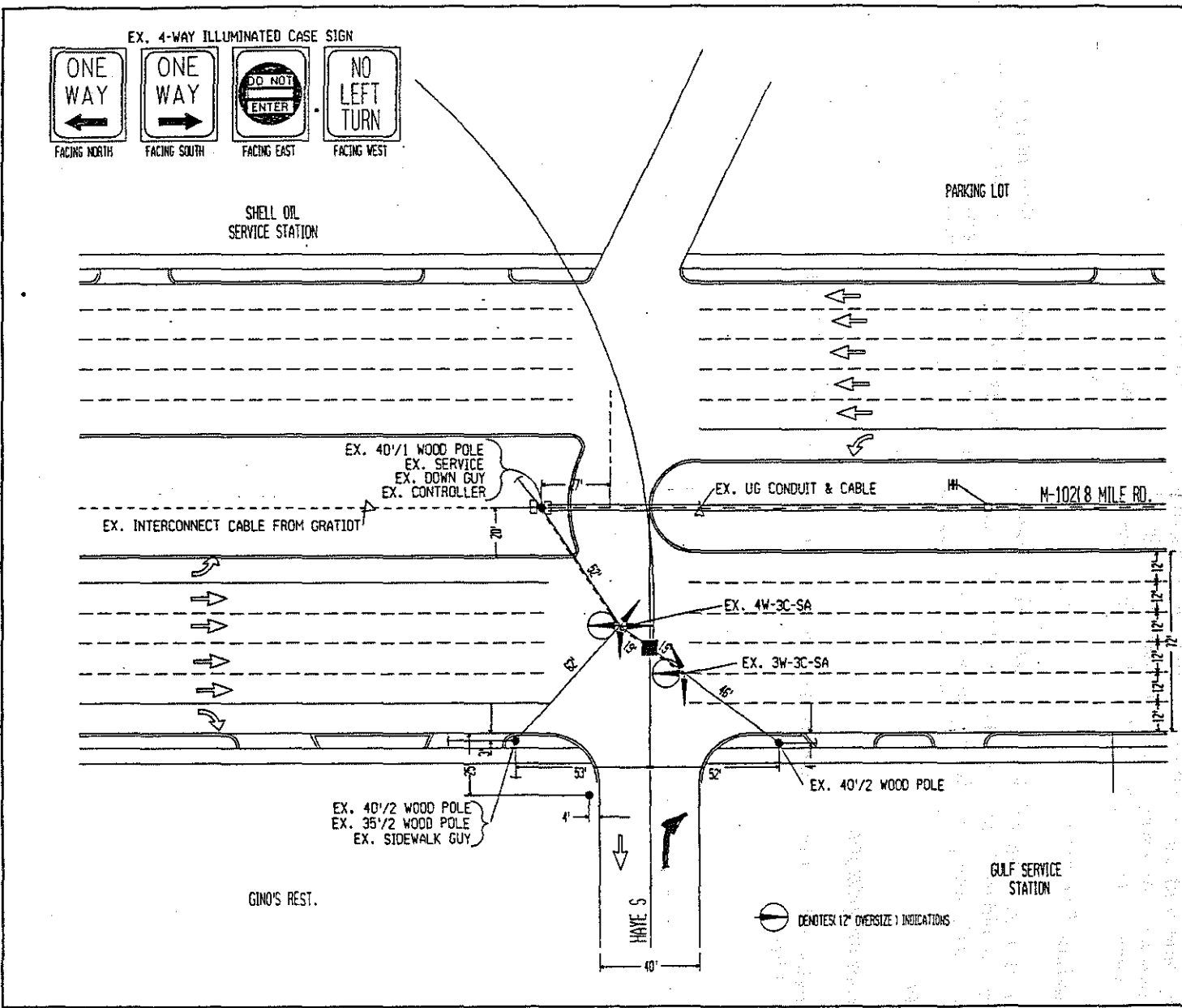
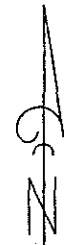
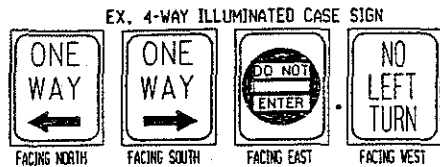
MICHIGAN DEPARTMENT OF TRANSPORTATION
SUMMARY OF ACCIDENT CHARACTERISTICS

DATE RANGE: 1/01/85 - 12/31/87

LOCATION: M-102 at HAYES ST., East Detroit-Detroit

82144 00.050-00.120

TYPE OF ACCIDENT	1985		1986		1987		NO.	%	TOTAL	
	NO.	%	NO.	%	NO.	%			NO.	%
LEFT TURN - SAME DIRECTION	2	14	2	8	1	5			5	9
OPPOSING LEFT TURN	0	0	1	4	4	20			5	9
REAR-END	4	29	4	17	5	25			13	22
ANGLE	8	57	11	46	5	25			24	41
SIDESWIPE	0	0	0	0	0	0			0	0
PEDESTRIAN	0	0	0	0	0	0			0	0
HEAD-ON	0	0	0	0	1	5			1	2
DRIVEWAY-RELATED	0	0	1	4	1	5			2	3
FIXED OBJECT	0	0	0	0	1	5			1	2
OTHERS	0	0	5	21	2	10			7	12
PAVEMENT CONDITION										
WET	4	29	2	8	2	10			8	14
DRY	10	71	22	92	17	85			49	84
SNOWY-ICY	0	0	0	0	1	5			1	2
LIGHT CONDITION										
DAY	11	79	16	67	12	60			39	67
DAWN OR DUSK	0	0	2	8	1	5			3	5
NIGHT	3	21	6	25	7	35			16	28
ACCIDENT SEVERITY										
FATAL ACCIDENTS (NO. OF PERSONS)	0	0	0	0	0	0			0	0
INJURY ACCIDENTS (NO. OF PERSONS)	5	36	4	17	4	20			13	22
PROPERTY DAMAGE ONLY	9	64	20	83	16	80			45	78
TOTAL ACCIDENTS	14		24		20				58	
TOTAL INJURIES	6		5		5				16	



STATE OF MICHIGAN DEPARTMENT OF TRANSPORTATION TRAFFIC & SAFETY DIVISION	
TRAFFIC SIGNAL INSTALLATION M-102 (8 MILE RD.) AT HAYES	
CITY OF DETROIT	WAYNE CO.
INSTALLATION PARTICIPATION	
STATE	93.75%
COUNTY OF	Z
CITY OF DETROIT	6.25%
F.H.W.A.	Z
POWER COMPANY DETROIT EDISON CO. ENGINEER L. CENSLEY	
POWER CONSUMPTION	
CYCLIC WATTS	1925
STEADY WATTS	360
NO. OF ST. LIGHTS	
COMPLETED	
INSPECTED	
SIGNATURE	
ENGINEER OR TECHNICIAN L. TIBBITS	DRAWN L V
DATE 7-18-86	SCALE 1"=40'
AUTH. NO.	SHEET 1 OF 1
PLAN 82144-01-002	

14. M-53 (Van Dyke) at Harper
City of Detroit, Wayne County, C.S. 82151, M.P. 0.86

Geometric and Operational Characteristics

M-53 (Van Dyke) is a six-lane, two-way facility. Southeastbound VanDyke has a center left-turn lane and the northwestbound has a median island but no center left-turn lane. Harper is two-lane, two-way. The intersection is signalized and is located in an urbanized area with an average daily traffic of 70,700. The speed limit along M-53 is 30 mph.

Accident Summary

The intersection recorded 34 left-turn accidents which exceeded the threshold limit. Left-turn accidents are broken down as 12 northwestbound, 16 southeastbound, two northeastbound, and four southwestbound. Electronic Systems Unit studied this intersection for left turn accidents and conveyed their recommendations to the district on December 26, 1989.

Recommendation:

Provide a left-turn phase for the southbound M-53 and prohibit left-turn movements from the northbound M-53.

Q/430/74

MICHIGAN DEPARTMENT OF TRANSPORTATION
SUMMARY OF ACCIDENT CHARACTERISTICS

DATE RANGE: 1/01/85 - 12/31/87

LOCATION: M-53 at HARPER, Detroit

82151 00.830-00.910

TYPE OF ACCIDENT	1985		1986		1987		NO.	%	TOTAL	
	NO.	%	NO.	%	NO.	%			NO.	%
LEFT TURN - SAME DIRECTION	1	3	2	6	0	0			3	3
OPPOSING LEFT TURN	10	32	12	34	9	22			31	29
REAR-END	9	29	8	23	16	39			33	31
ANGLE	2	6	4	11	9	22			15	14
SIDESWIPE	2	6	1	3	0	0			3	3
PEDESTRIAN	3	10	0	0	1	2			4	4
HEAD-ON	0	0	0	0	0	0			0	0
DRIVEWAY-RELATED	0	0	1	3	1	2			2	2
FIXED OBJECT	2	6	0	0	3	7			5	5
OTHERS	2	6	7	20	2	5			11	10
PAVEMENT CONDITION										
WET	9	29	5	14	7	17			21	20
DRY	17	55	28	80	31	76			76	71
SNOWY-ICY	5	16	1	3	1	2			7	7
LIGHT CONDITION										
DAY	18	58	20	57	31	76			69	64
DAWN OR DUSK	1	3	1	3	3	7			5	5
NIGHT	12	39	14	40	6	15			32	30
ACCIDENT SEVERITY										
FATAL ACCIDENTS	1	3	0	0	0	0			1	1
(NO. OF PERSONS)	1		0		0				1	
INJURY ACCIDENTS	13	42	12	34	16	39			41	38
(NO. OF PERSONS)	19		24		28				71	
PROPERTY DAMAGE ONLY	17	55	23	66	25	61			65	61
TOTAL ACCIDENTS	31		35		41				107	
TOTAL INJURIES	19		24		28				71	

15. M-53 (Van Dyke) at 7 Mile Road
City of Detroit, Wayne County, C.S. 82151, M.P. 3.92

Geometric and Operational Characteristics

M-53 (Van Dyke) is a seven-lane, two-way facility with center left-turn lanes. Seven Mile Road is two-lanes with two-way traffic. The intersection is signalized, average daily traffic is 33,200 and the posted speed limit is 35 mph along Van Dyke.

Accident Summary

During the study period, 51 right-angle, 29 left-turn, and 44 rear-end accidents exceeded respective thresholds. Total accidents in 1988 almost doubled those of the previous year; the greatest increase being in the rear-end types, from nine in 1987 to 43 in the following year.

Angle accidents were a result of the 7 Mile Road traffic failing to yield to the M-53 traffic. Most head-on accidents involved the northbound M-53 traffic turning left.

Recommendations:

1. The Electronic Systems Unit recommends to extend the 7 Mile Road yellow interval from the existing 4.2 to 4.8 seconds.
2. Electronic Systems Unit will study this intersection for a possible left-turn phase for the M-53 traffic.
3. Replace the 7 Mile Road signals with 12 inch oversized lenses.

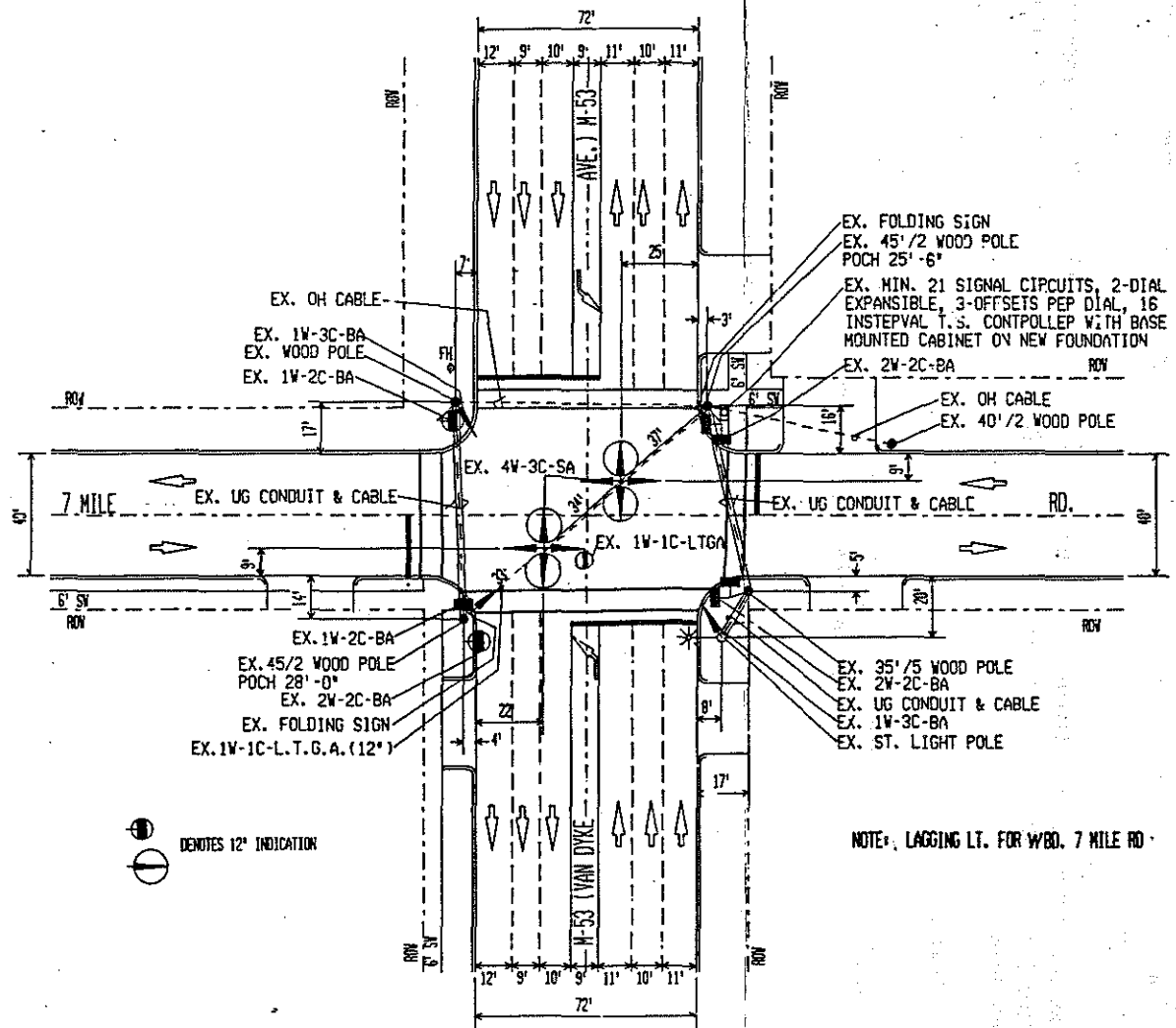
Q/430/74

MICHIGAN DEPARTMENT OF TRANSPORTATION
SUMMARY OF ACCIDENT CHARACTERISTICS

DATE RANGE: 1/01/85 - 12/31/87

LOCATION: M-53 at 7 MILE RD, Detroit
82151 03.880-03.950

TYPE OF ACCIDENT	1985		1986		1987		TOTAL	
	NO.	%	NO.	%	NO.	%	NO.	%
LEFT TURN - SAME DIRECTION	1	2	1	2	0	0	2	1
OPPOSING LEFT TURN	9	15	12	20	6	13	27	16
REAR-END	12	20	23	39	9	19	44	26
ANGLE	23	38	10	17	18	38	51	30
SIDESWIPE	2	3	1	2	1	2	4	2
PEDESTRIAN	2	3	2	3	6	13	10	6
HEAD-ON	1	2	3	5	1	2	5	3
DRIVEWAY-RELATED	2	3	1	2	2	4	5	3
FIXED OBJECT	1	2	0	0	1	2	2	1
OTHERS	8	13	6	10	4	8	18	11
PAVEMENT CONDITION								
WET	11	18	12	20	8	17	31	18
DRY	42	69	37	63	37	77	116	69
SNOWY-ICY	8	13	8	14	3	6	19	11
LIGHT CONDITION								
DAY	40	66	28	47	34	71	102	61
DAWN OR DUSK	3	5	1	2	1	2	5	3
NIGHT	18	30	29	49	13	27	60	36
ACCIDENT SEVERITY								
FATAL ACCIDENTS (NO. OF PERSONS)	0	0	0	0	2	4	2	1
	0		0		2		2	
INJURY ACCIDENTS (NO. OF PERSONS)	20	33	16	27	18	38	54	32
	38		29		22		89	
PROPERTY DAMAGE ONLY	41	67	43	73	29	60	113	67
TOTAL ACCIDENTS	61		59		48		168	
TOTAL INJURIES	38		29		23		90	



DENOTES 12" INDICATION

NOTE: LAGGING LT. FOR WBD. 7 MILE RD.

AS BUILT 10-22-82 P.E.H	
STATE OF MICHIGAN DEPARTMENT OF STATE HIGHWAYS TRAFFIC AND SAFETY DIVISION	
TRAFFIC SIGNAL INSTALLATION M-53 (VAN DYKE AVE.) @ 7 MILE RD. CITY OF DETROIT WAYNE COUNTY	
INSTALLATION PARTICIPATION	
STATE	50 %
COUNTY OF	%
TOWNSHIP OF	%
CITY OF DETROIT	50 %
POWER COMPANY PUBLIC LIGHTING COMMISSION ENGINEER	
POWER CONSUMPTION	
CYCLIC WATTS	5163
STEADY WATTS	
NO. OF ST. LIGHTS	
COMPLETED	
INSPECTED	
SIGNATURE	
ENGINEER OR TECHNICIAN H. SCHÖPKE	DRAWN NDL
DATE 1-11-79	SCALE 1"=40'
AUTH. NO.	SHEET OF
PLAN 82151-01-008	

16. M-97 (Hoover-Gunston) at Six Mile Road
City of Detroit, Wayne County, C.S. 82171, M.P. 0.90

Geometric and Operational Characteristics

M-97 is a two-lane, two-way road, with an average daily traffic of 23,920, and has a speed limit of 30 mph. Six Mile Road is a four-lane, two-way road. The intersection is signalized and the area is urban.

Accident Summary

Twenty right-angle and 38 rear-end accidents exceeded threshold levels. The attached "Summary of Accident Characteristics" shows a declining trend in all types of accidents for the last two years.

To address the problem of left-turn and angle accidents, MDOT in 1983 proposed widening M-97 to five lanes to head-up opposing left turns. It has not been implemented due to right-of-way problems.

Recommendation:

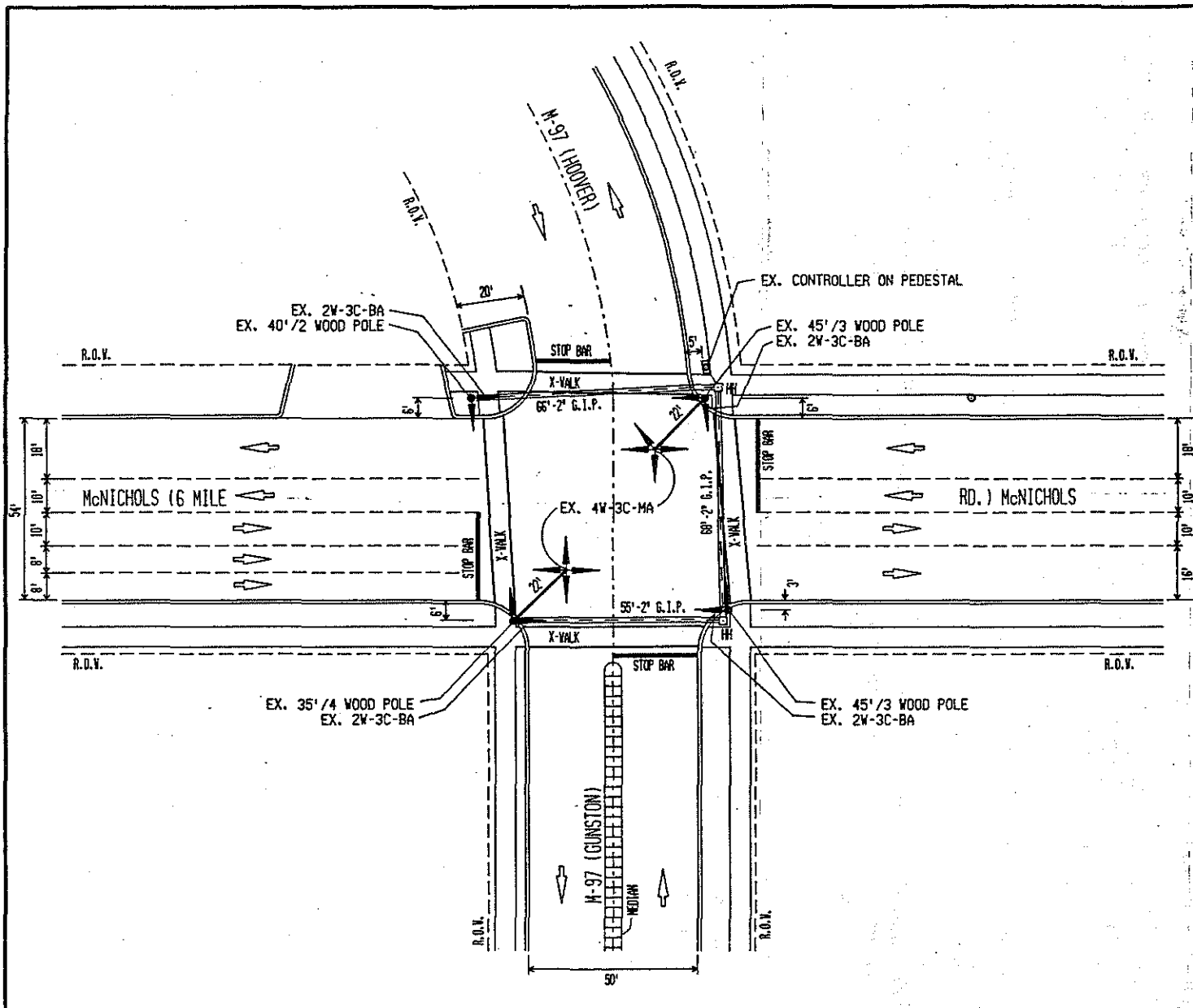
Electronic Systems and Geometric Coordination Units will explore feasibility of designing headed-up left-turn lanes within the existing right-of-way.

Q/430/74

MICHIGAN DEPARTMENT OF TRANSPORTATION
SUMMARY OF ACCIDENT CHARACTERISTICS

DATE RANGE: 1/01/85 - 12/31/87
LOCATION: M-97 at 6 MILE RD, Detroit
82171 00.870-00.970

TYPE OF ACCIDENT	1985		1986		1987		NO.	%	TOTAL	
	NO.	%	NO.	%	NO.	%			NO.	%
LEFT TURN - SAME DIRECTION	0	0	0	0	3	12			3	3
OPPOSING LEFT TURN	8	24	4	14	1	4			13	15
REAR-END	13	38	14	48	7	28			34	39
ANGLE	5	15	6	21	7	28			18	20
SIDESWIPE	2	6	0	0	0	0			2	2
PEDESTRIAN	0	0	0	0	1	4			1	1
HEAD-ON	1	3	1	3	0	0			2	2
DRIVEWAY-RELATED	1	3	1	3	1	4			3	3
FIXED OBJECT	1	3	2	7	2	8			5	6
OTHERS	3	9	1	3	3	12			7	8
PAVEMENT CONDITION										
WET	7	21	5	17	6	24			18	20
DRY	22	65	23	79	18	72			63	72
SNOWY-ICY	5	15	0	0	1	4			6	7
LIGHT CONDITION										
DAY	26	76	23	79	19	76			68	77
DAWN OR DUSK	1	3	1	3	1	4			3	3
NIGHT	7	21	5	17	5	20			17	19
ACCIDENT SEVERITY										
FATAL ACCIDENTS (NO. OF PERSONS)	0	0	0	0	0	0			0	0
INJURY ACCIDENTS (NO. OF PERSONS)	6	18	13	45	6	24			25	28
PROPERTY DAMAGE ONLY	28	82	16	55	19	76			63	72
TOTAL ACCIDENTS	34		29		25				88	
TOTAL INJURIES	8		16		7				31	



AS BUILT	
STATE OF MICHIGAN DEPARTMENT OF TRANSPORTATION TRAFFIC AND SAFETY DIVISION	
TRAFFIC SIGNAL INSTALLATION H-97 (HOOVER-GUNSTON) AT McNICHOLS (6 MILE RD.) CITY OF DETROIT WAYNE COUNTY	
INSTALLATION PARTICIPATION	
STATE	50 %
COUNTY OF	50 %
CITY OF DETROIT	50 %
F.H.V.A.	50 %
POWER COMPANY PUBLIC LIGHTING COMM. ENGINEER	
POWER CONSUMPTION	
CYCLIC WATTS	3312
STEADY WATTS	
NO. OF ST. LIGHTS	
COMPLETED	
INSPECTED	
SIGNATURE	
ENGINEER OR TECHNICIAN P. HENLEY	DRAWN DFK
DATE 10-19-82	SCALE 1"=30'
AUTH. NO	SHEET OF
PLAN 82171-01-001	

17. M-97 (Hoover Rd.) at Seven Mile Rd
City of Detroit, Wayne County, C.S. 82171, M.P. 1.91

Geometric and Operational Characteristics

M-97 (Hoover Rd.) is a four-lane, two-way road with 26,060 ADT and a 30 mph speed limit. The intersection at Seven Mile Road has center left-turn lanes on all approaches except on southbound M-97.

Accident Summary

Thirty-one right-angle, 41 head-on left-turn, and 60 rear-end accidents exceeded threshold levels. The attached "Summary of Accident Characteristics" shows that during the last two years, angle accidents increased, left-turn accidents decreased, and rear-ends remained the same.

Electronic Systems Unit reviewed this intersection in October 1988, and proposed an "all red" interval following the Seven Mile through phase. This action should address the angle accidents.

Directional distribution of left-turn accidents shows a disproportionate increase in the left-turn accidents on the southbound approach (eight northbound, 17 southbound, five eastbound, seven westbound). A headed-up left-turn lane was proposed in October, 1988, which should reduce left-turn accidents when implemented.

Recommendation

Electronic Systems and Geometric Coordination Units will explore feasibility of designing headed-up left turn lanes within the existing right-of-way.

17. M-97 (Hoover Rd.) at Seven Mile Rd
City of Detroit, Wayne County, C.S. 82171, M.P. 1.91

Geometric and Operational Characteristics

M-97 (Hoover Rd.) is a four-lane, two-way road with 26,060 ADT and a 30 mph speed limit. The intersection at Seven Mile Road has center left-turn lanes on Seven Mile Road only.

Accident Summary

Thirty-one right-angle, 41 head-on left-turn, and 60 rear-end accidents exceeded threshold levels. The attached "Summary of Accident Characteristics" shows that during the last two years, angle accidents increased, left-turn accidents decreased, and rear-ends remained the same.

Electronic Systems Unit reviewed this intersection in October 1988, and proposed an "all red" interval following the Seven Mile through phase. This action should address the angle accidents.

Directional distribution of left-turn accidents shows a disproportionate increase in the left-turn accidents on the southbound approach (eight northbound, 17 southbound, five eastbound, seven westbound). A headed-up left-turn lane was proposed in October, 1988, which should reduce left-turn accidents when implemented.

Recommendation

Electronic Systems and Geometric Coordination Units explore feasibility and design of headed-up left turn lanes within the existing right-of-way.

Q/430/74

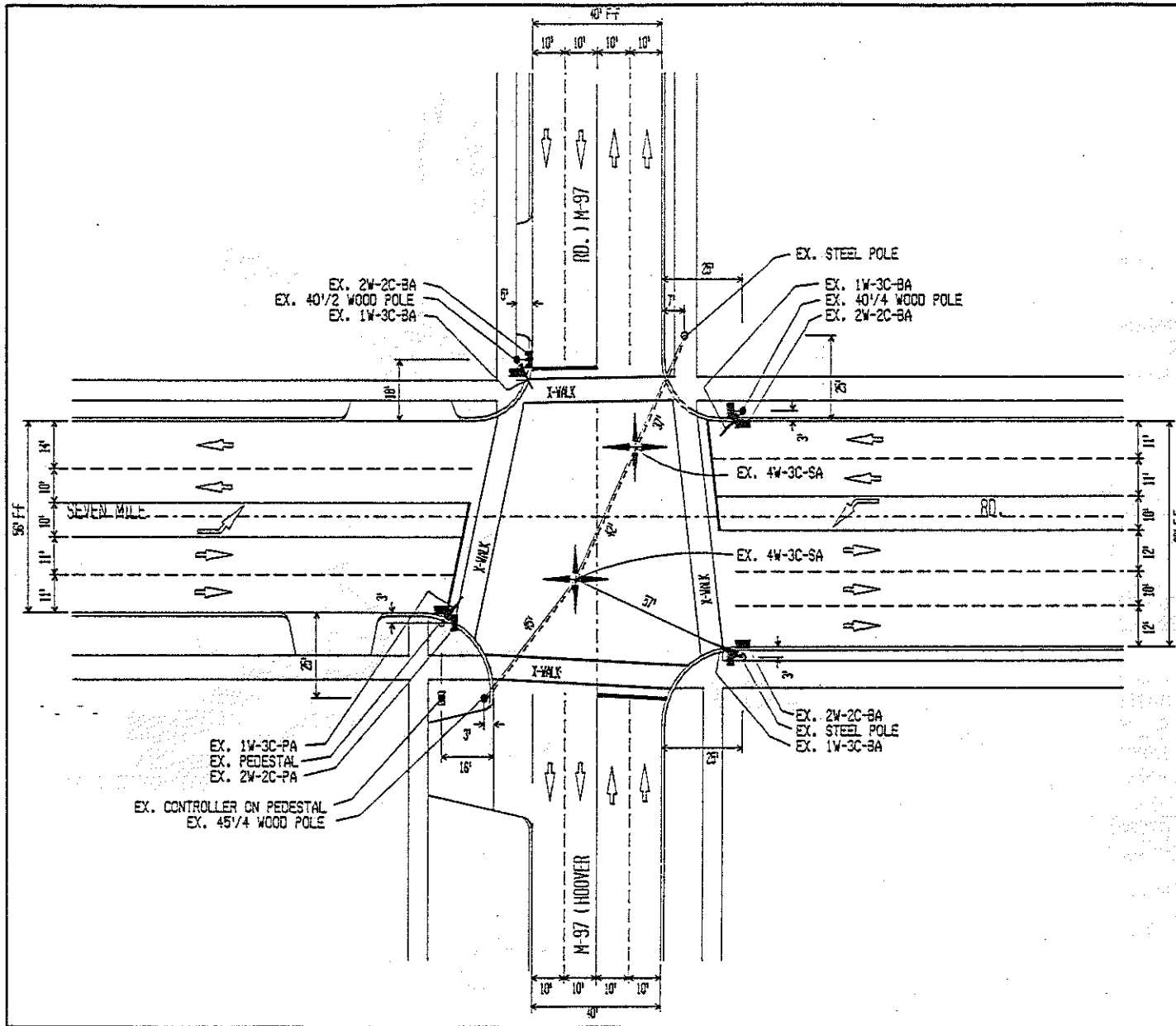
MICHIGAN DEPARTMENT OF TRANSPORTATION
SUMMARY OF ACCIDENT CHARACTERISTICS

DATE RANGE: 1/01/85 - 12/31/87

LOCATION: M-97 at 7 MILE RD, Detroit

82171 01.850-01.980

TYPE OF ACCIDENT	1985		1986		1987		TOTAL	NO.	%
	NO.	%	NO.	%	NO.	%			
LEFT TURN - SAME DIRECTION	0	0	4	9	1	3	5	4	
OPPOSING LEFT TURN	15	42	10	21	7	20	32	27	
REAR-END	14	39	16	34	14	40	44	37	
ANGLE	4	11	7	15	6	17	17	14	
SIDESWIPE	0	0	0	0	0	0	0	0	
PEDESTRIAN	0	0	1	2	4	11	5	4	
HEAD-ON	1	3	1	2	0	0	2	2	
DRIVEWAY-RELATED	0	0	2	4	2	6	4	3	
FIXED OBJECT	0	0	1	2	0	0	1	1	
OTHERS	2	6	5	11	1	3	8	7	
PAVEMENT CONDITION									
WET	12	33	12	26	8	23	32	27	
DRY	21	58	30	64	25	71	76	64	
SNOWY-ICY	2	6	5	11	2	6	9	8	
LIGHT CONDITION									
DAY	26	72	34	72	32	91	92	78	
DAWN OR DUSK	2	6	0	0	0	0	2	2	
NIGHT	7	19	13	28	3	9	23	19	
ACCIDENT SEVERITY									
FATAL ACCIDENTS (NO. OF PERSONS)	0	0	0	0	0	0	0	0	
INJURY ACCIDENTS (NO. OF PERSONS)	12	33	15	32	11	31	38	32	
PROPERTY DAMAGE ONLY	24	67	32	68	24	69	80	68	
TOTAL ACCIDENTS	36		47		35		118		
TOTAL INJURIES	17		18		19		54		



OPERATIONAL PLAN 1984 PHOTOLOG	
AS BUILT	
STATE OF MICHIGAN DEPARTMENT OF TRANSPORTATION TRAFFIC AND SAFETY DIVISION	
TRAFFIC SIGNAL INSTALLATION M-97 (HOOVER RD.) AT 7 MILE RD. CITY OF DETROIT WAYNE COUNTY	
INSTALLATION PARTICIPATION	
STATE	50 %
COUNTY OF	%
CITY OF DETROIT	50 %
F.H.W.A.	%
POWER COMPANY ENGINEER	PUBLIC LIGHTING COMM.
POWER CONSUMPTION	
CYCLIC WATTS	4884
STEADY WATTS	
NO. OF ST. LIGHTS	
COMPLETED	
INSPECTED	
SIGNATURE	
ENGINEER OR TECHNICIAN P. JEWLETT	DRAWN OFK
DATE 10-19-82	SCALE 1"=30'
AUTH. NO.	SHEET 1 OF 1
PLAN 82171-01-002	

18. M-85 (Fort) at Visger Rd.
City of Detroit, Wayne County, C.S. 82211, M.P. 14.43

Geometric and Operational Characteristics

M-85 (Fort) is a six-lane, divided facility with an ADT of 46,000, and a 35 mph speed limit. The intersection is signalized. The existing flasher schedule has been 11 p.m. to 6 a.m. daily since 1984. There is a "No Turn on Red 7 a.m. - 5 p.m. Monday through Friday" prohibition on all approaches.

Accident Summary

Twenty right-angle accidents exceeded the threshold level. Sixteen of the angle accidents occurred on Visger. Eleven occurred during the flashing hours, nine of them during 11 p.m. to 2 a.m. only.

Recommendation

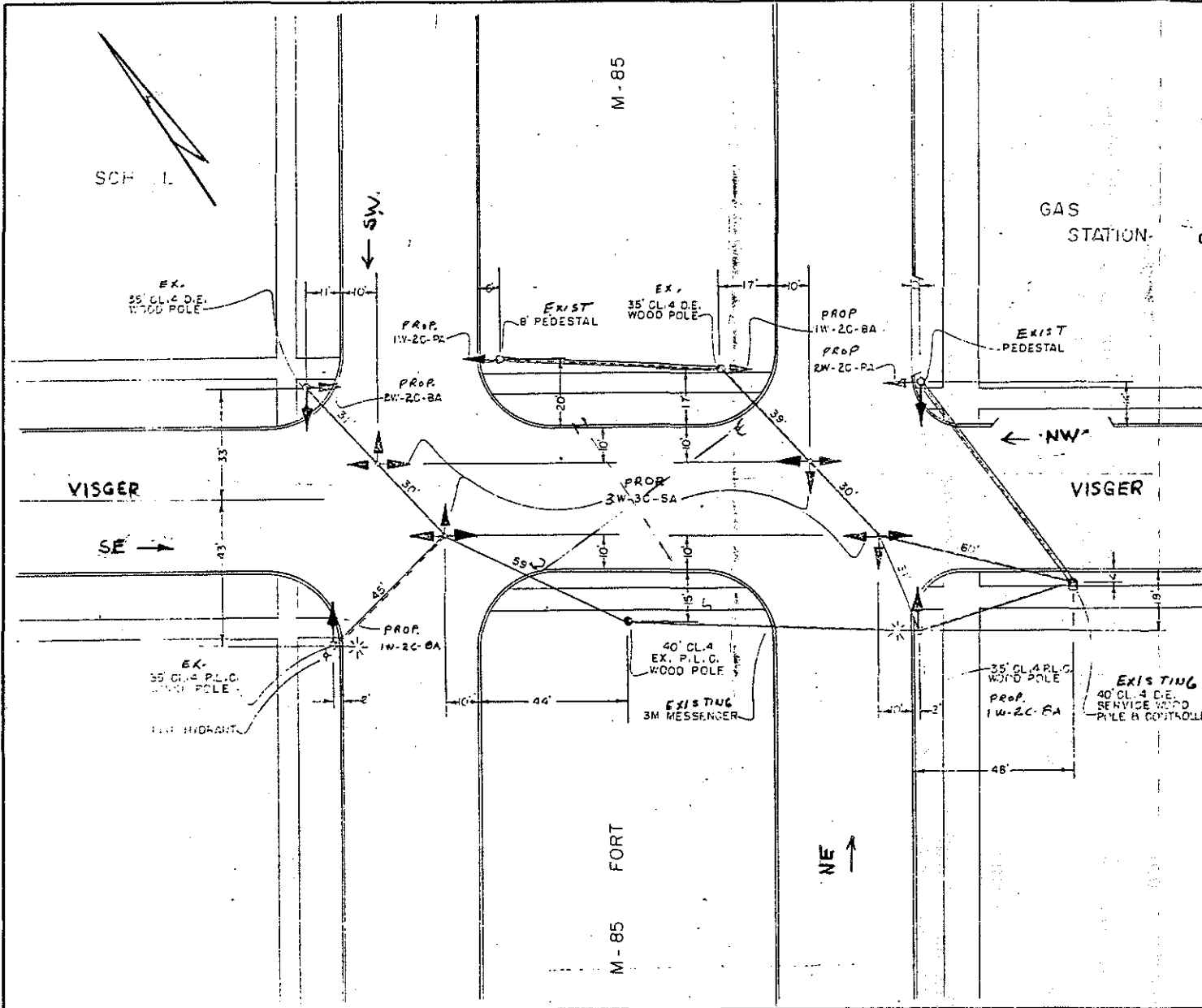
Extend the stop-and-go operation to 2 a.m.

Q/430/74

MICHIGAN DEPARTMENT OF TRANSPORTATION
SUMMARY OF ACCIDENT CHARACTERISTICS

DATE RANGE: 1/01/85 - 12/31/87
LOCATION: M-85 at VISGER RD, Detroit
82211 14.360-14.490

TYPE OF ACCIDENT	1985		1986		1987		TOTAL	
	NO.	%	NO.	%	NO.	%	NO.	%
LEFT TURN - SAME DIRECTION	0	0	1	5	0	0	1	2
OPPOSING LEFT TURN	0	0	1	5	2	11	3	6
REAR-END	5	50	11	58	2	11	18	38
ANGLE	4	40	5	26	11	61	20	43
SIDESWIPE	0	0	0	0	0	0	0	0
PEDESTRIAN	0	0	1	5	0	0	1	2
HEAD-ON	1	10	0	0	0	0	1	2
DRIVEWAY-RELATED	0	0	0	0	0	0	0	0
FIXED OBJECT	0	0	0	0	1	6	1	2
OTHERS	0	0	0	0	2	11	2	4
PAVEMENT CONDITION								
WET	2	20	4	21	3	17	9	19
DRY	7	70	13	68	15	83	35	74
SNOWY-ICY	1	10	2	11	0	0	3	6
LIGHT CONDITION								
DAY	5	50	11	58	9	50	25	53
DAWN OR DUSK	1	10	1	5	3	17	5	11
NIGHT	4	40	7	37	6	33	17	36
ACCIDENT SEVERITY								
FATAL ACCIDENTS (NO. OF PERSONS)	0	0	0	0	0	0	0	0
INJURY ACCIDENTS (NO. OF PERSONS)	6	60	6	32	9	50	21	45
PROPERTY DAMAGE ONLY	4	40	13	68	9	50	26	55
TOTAL ACCIDENTS	10		19		18		47	
TOTAL INJURIES	14		8		18		40	



LEGEND

PEDESTRIAN SIGNALS ^{A, B} ADDED TO DRAWING 10-30-60	
Change Participation 11/30/60 MP	
MICHIGAN STATE HIGHWAY DEPARTMENT JOHN C. MACKIE, COMMISSIONER TRAFFIC DIVISION	
TRAFFIC SIGNAL INSTALLATION M-85 (FORT) S VISGER	
Detroit	WAYNE COUNTY
MAINTAINING AGENCY Wayne Co. Rd. Comm.	
PARTICIPATION STATE 50 % COUNTY OF % TOWNSHIP % CITY OF CHALMERS % Detroit 50 %	
POWER COMPANY Detroit Edison Co. ENGINEER L. Gensley	
POWER CONSUMPTION WATTS 2984 CYCLIC STEADY TOTAL	
SUPPORTING STRUCTURES PROPERTY OF Detroit Edison Co.	
COMPLETED <input type="checkbox"/> DATE INSPECTED <input type="checkbox"/> DATE SIGNATURE	
ENGINEER <i>R. BLOST</i>	DRAWN R.D.S.
DATE 8-7-60	SCALE 1" = 30'
AUTH. NO. <i>S-5429</i>	SHEET OF
PLAN 82211-01-002	

**19. M-85 (Fort St.) at Schaefer Hwy.
City of Detroit, Wayne County, C.S. 82211, M.P. 15.05**

Geometric and Operational Characteristics

M-85 (Fort St.) is a six-lane divided road with an ADT of 41,360 and a speed limit of 35 mph. The intersection is signalized, and was upgraded in 1985 with a solid state controller and time based coordinator. An "all red" interval is also in place.

Accident Summary

Forty-two right-angle, 15 left-turn, and 59 rear-end accidents exceeded threshold levels. The attached "Summary of Accident Characteristics" shows that all of these types of accidents have stayed the same during the last three years.

Recommendation

The district traffic and safety engineer recommends modernizing the existing signal layout with additional 12-inch traffic and pedestrian signal heads.

Q/430/74

MICHIGAN DEPARTMENT OF TRANSPORTATION
SUMMARY OF ACCIDENT CHARACTERISTICS

DATE RANGE: 1/01/85 - 12/31/87

LOCATION: M-85 at SCHAEFER RD, Detroit

82211 15.030-15.070

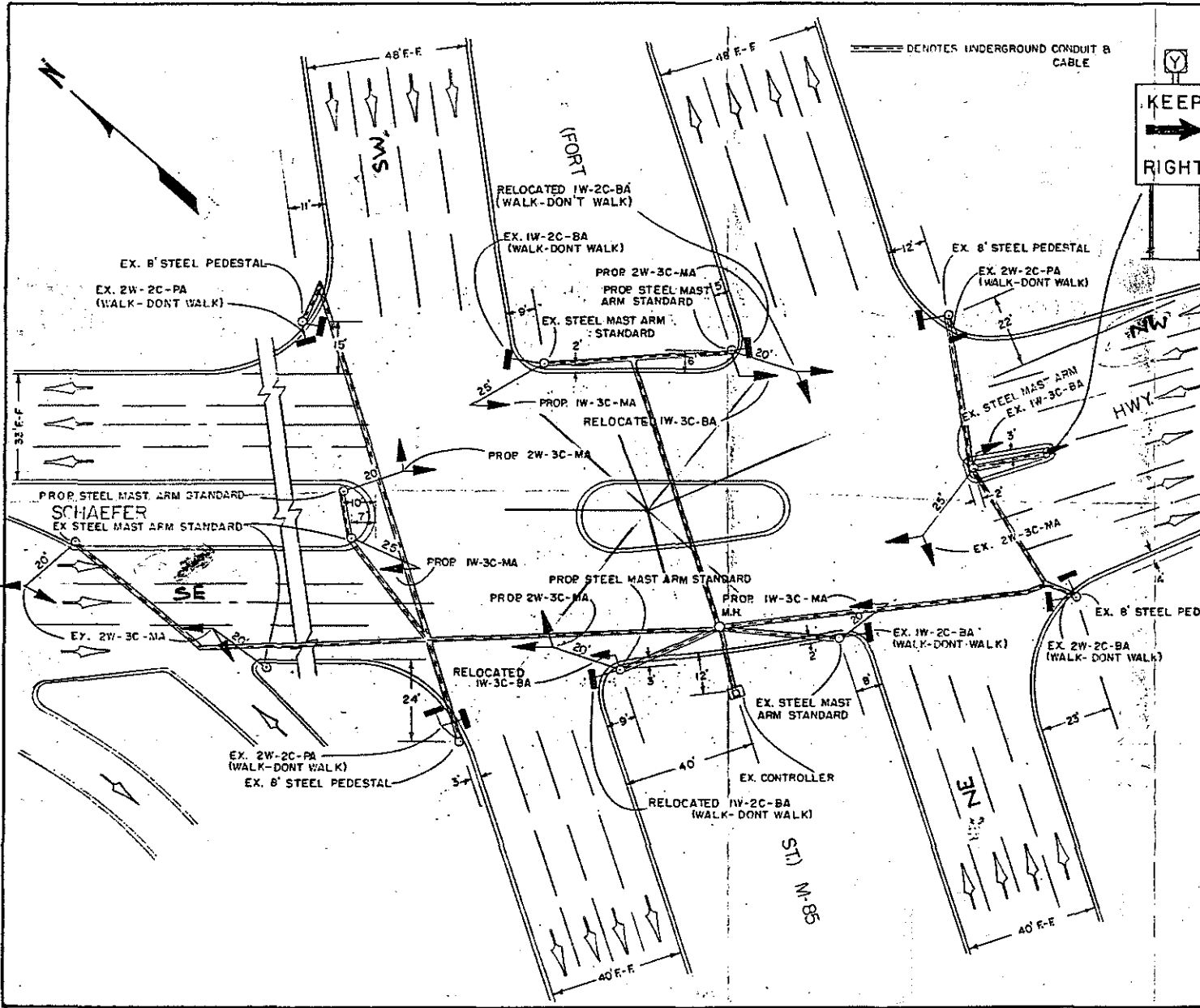
TYPE OF ACCIDENT	1985		1986		1987		NO.	%	TOTAL	
	NO.	%	NO.	%	NO.	%			NO.	%
LEFT TURN - SAME DIRECTION	4	10	5	9	4	9			13	9
OPPOSING LEFT TURN	0	0	0	0	2	4			2	1
REAR-END	18	44	22	38	19	40			59	40
ANGLE	11	27	17	29	14	30			42	29
SIDESWIPE	1	2	0	0	0	0			1	1
PEDESTRIAN	0	0	1	2	1	2			2	1
HEAD-ON	0	0	1	2	0	0			1	1
DRIVEWAY-RELATED	1	2	1	2	2	4			4	3
FIXED OBJECT	2	5	4	7	2	4			8	5
OTHERS	4	10	7	12	3	6			14	10
PAVEMENT CONDITION										
WET	9	22	10	17	5	11			24	16
DRY	25	61	46	79	42	89			113	77
SNOWY-ICY	7	17	2	3	0	0			9	6
LIGHT CONDITION										
DAY	29	71	43	74	36	77			108	74
DAWN OR DUSK	1	2	0	0	1	2			2	1
NIGHT	11	27	15	26	10	21			36	25
ACCIDENT SEVERITY										
FATAL ACCIDENTS (NO. OF PERSONS)	3	7	0	0	0	0			3	2
	3		0		0				3	
INJURY ACCIDENTS (NO. OF PERSONS)	13	32	15	26	12	26			40	27
	14		20		25				59	
PROPERTY DAMAGE ONLY	27	66	43	74	35	74			105	72
TOTAL ACCIDENTS	41		58		47				146	
TOTAL INJURIES	16		20		25				61	

REVISIONS



EX KEEP RIGHT SIGN
W/ FLASHER

--- DENOTES UNDERGROUND CONDUIT & CABLE



STATE OF MICHIGAN DEPARTMENT OF STATE HIGHWAYS TRAFFIC AND SAFETY DIVISION	
TRAFFIC SIGNAL INSTALLATION M-85 (FORT ST.) AT SCHAEFER HWY.	
CITY OF DETROIT	WAYNE CO.
INSTALLATION PARTICIPATION	
STATE	75 %
COUNTY OF WAYNE	25 %
TOWNSHIP	%
CITY	%
POWER PUBLIC LIGHTING COMMISSION	
COMPANY	ENGINEER DON WAY
POWER CONSUMPTION	
CYCLIC WATTS	5293
STEADY WATTS	
NO. OF ST. LIGHTS	
COMPLETED <input type="checkbox"/>	DATE
INSPECTED <input type="checkbox"/>	SIGNATURE
ENGINEER L.E. TIBBITTS	DRAWN PEH
DATE 1-13-72	SCALE 1" = 30'
AUTH. NO. 08498	SHEET OF
PLAN 82211-01-001	

20. M-5 (Grand River Ave.) at Livernois
City of Detroit, Wayne County, C.S. 82821, M.P. 2.29

Geometric and Operational Characteristics

M-5 (Grand River Ave.) is a seven-lane two-way facility with a 35 mph posted speed limit. All intersection approaches have center left-turn lanes. The intersection is signalized and an "all red" interval has been in place since 1982. Also M-5 is an "unsigned" trunkline proposed to be turnback.

Accident Summary

Twenty-three right-angle, 29 left-turn, and 55 rear-end accidents exceeded threshold levels. Angle accidents were evenly distributed among all the four approaches, but northbound Livernois experienced the most left-turn accidents. Of the 16 left-turn accidents on the northbound Livernois, 13 occurred during the evening hours 3 p.m. to 11 p.m. (Note that accident data for 1987 was taken from the revised milepoint 2.17.)

Recommendation

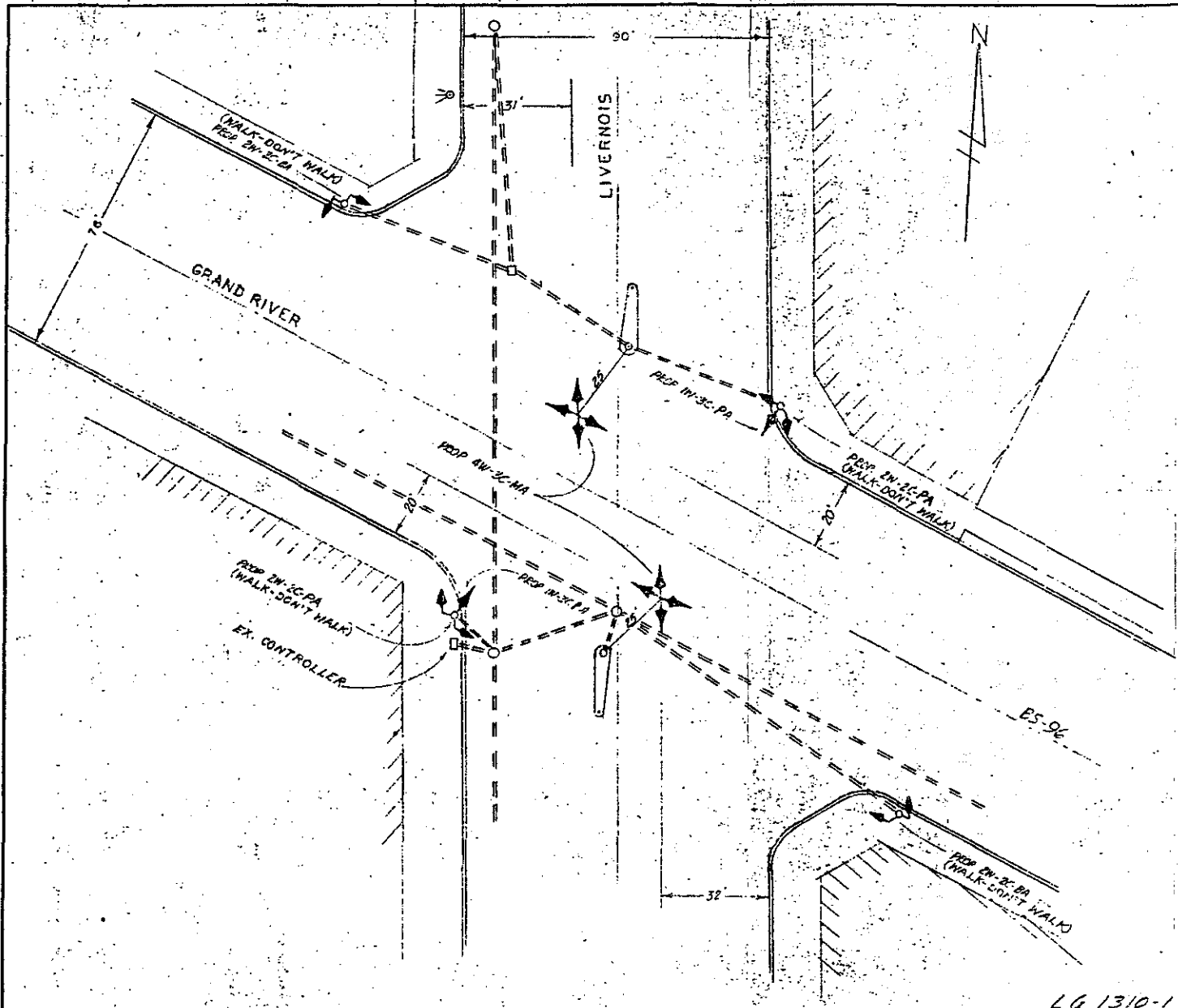
Electronic Systems Unit will study this intersection for a possible left-turn phase for the Livernois traffic.

Q/430/74

MICHIGAN DEPARTMENT OF TRANSPORTATION
SUMMARY OF ACCIDENT CHARACTERISTICS

DATE RANGE: 1/01/85 - 12/31/86
LOCATION: M-5 at LIVERNOIS, Detroit
82821 02.290-02.330

TYPE OF ACCIDENT	1985		1986		TOTAL	
	NO.	%	NO.	%	NO.	%
LEFT TURN - SAME DIRECTION	3	7	0	0	3	4
OPPOSING LEFT TURN	8	19	7	18	15	19
REAR-END	12	29	24	62	36	44
ANGLE	9	21	4	10	13	16
SIDESWIPE	3	7	1	3	4	5
PEDESTRIAN	1	2	1	3	2	2
HEAD-ON	0	0	0	0	0	0
DRIVEWAY-RELATED	3	7	0	0	3	4
FIXED OBJECT	1	2	0	0	1	1
OTHERS	2	5	2	5	4	5
PAVEMENT CONDITION						
WET	9	21	11	28	20	25
DRY	24	57	25	64	49	60
SNOWY-ICY	8	19	1	3	9	11
LIGHT CONDITION						
DAY	26	62	29	74	55	68
DAWN OR DUSK	1	2	0	0	1	1
NIGHT	14	33	10	26	24	30
ACCIDENT SEVERITY						
FATAL ACCIDENTS (NO. OF PERSONS)	0	0	0	0	0	0
INJURY ACCIDENTS (NO. OF PERSONS)	16	38	10	26	26	32
PROPERTY DAMAGE ONLY	26	62	29	74	55	68
TOTAL ACCIDENTS	42		39		81	
TOTAL INJURIES	32		17		49	



LEGEND

WD-05932/2-9-65/A

MICHIGAN STATE HIGHWAY DEPARTMENT JOHN C. MACKIE, COMMISSIONER TRAFFIC DIVISION	
TRAFFIC SIGNAL INSTALLATION <i>B5-96 (GRAND RIVER AVE) AT LIVERNOIS</i>	
CITY OF DETROIT	WAY 1 ST CO
MAINTAINING AGENCY	<i>City of Detroit</i>
PARTICIPATION	
STATE	50 %
COUNTY OF	%
TOWNSHIP	%
CITY OR VILLAGE	50 %
POWER <i>Public Lighting Comm</i>	
COMPANY	
ENGINEER	<i>DON WAY</i>
POWER CONSUMPTION	
WATTS	2,760
CYCLIC	
STEADY	
ST. LIGHTING	
SUPPORTING STRUCTURES <i>PLC</i>	
PROPERTY OF	
COMPLETED <input type="checkbox"/> DATE	
INSPECTED <input type="checkbox"/> SIGNATURE	
ENGINEER <i>R. Bloss</i>	DRAWN
DATE <i>10-26-64</i>	SCALE <i>1" = 20'</i>
AUTH. NO. <i>0-5932</i>	SHEET OF
PLAN <i>B2121-01 016</i>	

LG 1310-1

21. M-5 (Grand River Ave.) at W. Grand Blvd.d
City of Detroit, Wayne County, C.S. 82821, M.P. 4.01

Geometric and Operational Characteristics

M-5 (Grand River Ave.) is an "unsigned" trunkline proposed for turnback. It is a seven-lane, two-way road with a posted speed limit of 35 mph. The intersection is signalized with a "NO TURN ON RED 7 a.m. - 7 p.m." prohibition.

Accident Summary

Twenty-seven right-angle accidents exceeded the threshold. Yearly distribution showed the same number of nine angle accidents every year. The directional distribution showed 12 eastbound, six westbound, six southbound, and three northbound.

Police reports indicated that seven out of nine angle accidents on the eastbound M-5 during the "NO TURN ON RED 7 A.M. - 7 P.M." restriction were a result of running the red light. None were related to turning right on red. The field review concluded the probable cause of angle accidents was due to the lack of enough signal heads and confusion created by the green light at the nearby Dexter Blvd. intersection. (Note that accident data for 1987 were taken from the revised milepoint 3.87.)

Recommendation

District recommends installing two additional signal heads on the eastbound M-5 farside, and one additional signal head on the westbound M-5 farside.

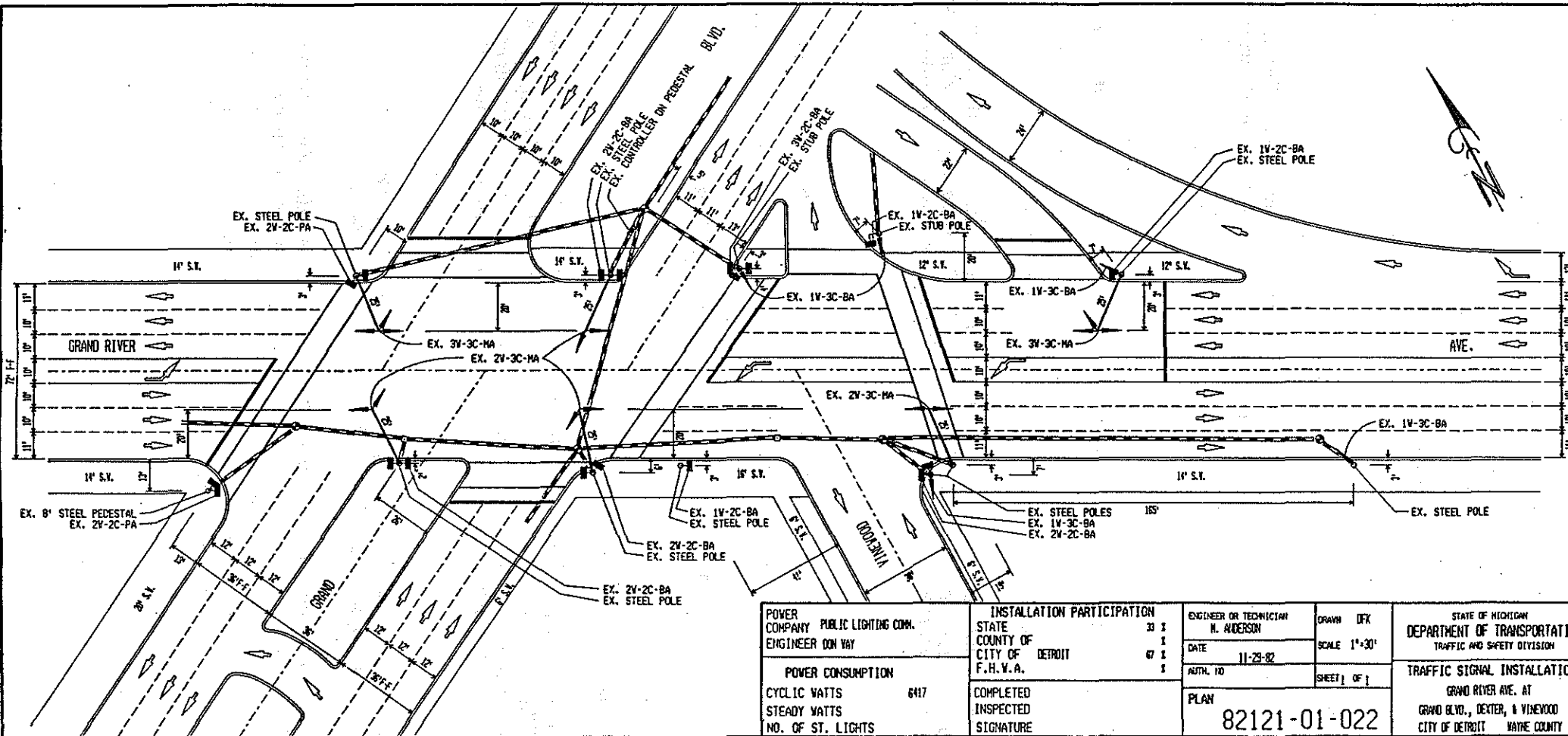
Q/430/74

MICHIGAN DEPARTMENT OF TRANSPORTATION
SUMMARY OF ACCIDENT CHARACTERISTICS

DATE RANGE: 1/01/85 - 12/31/86

LOCATION: M-5 at W. GRAND BLVD, Detroit
82821 04.000-04.020

TYPE OF ACCIDENT	1985		1986		TOTAL	
	NO.	%	NO.	%	NO.	%
LEFT TURN - SAME DIRECTION	0	0	3	12	3	7
OPPOSING LEFT TURN	0	0	0	0	0	0
REAR-END	4	24	9	35	13	30
ANGLE	9	53	9	35	18	42
SIDESWIPE	0	0	0	0	0	0
PEDESTRIAN	2	12	2	8	4	9
HEAD-ON	1	6	0	0	1	2
DRIVEWAY-RELATED	0	0	0	0	0	0
FIXED OBJECT	0	0	0	0	0	0
OTHERS	1	6	3	12	4	9
PAVEMENT CONDITION						
WET	2	12	7	27	9	21
DRY	13	76	16	62	29	67
SNOWY-ICY	2	12	2	8	4	9
LIGHT CONDITION						
DAY	16	94	16	62	32	74
DAWN OR DUSK	0	0	1	4	1	2
NIGHT	1	6	8	31	9	21
ACCIDENT SEVERITY						
FATAL ACCIDENTS (NO. OF PERSONS)	0	0	0	0	0	0
INJURY ACCIDENTS (NO. OF PERSONS)	7	41	7	27	14	33
PROPERTY DAMAGE ONLY	10	59	19	73	29	67
TOTAL ACCIDENTS	17		26		43	
TOTAL INJURIES	10		13		23	



POWER COMPANY PUBLIC LIGHTING COMM. ENGINEER DON VAY	INSTALLATION PARTICIPATION STATE 33 COUNTY OF 1 CITY OF DETROIT 67 F.H.V.A. 1	ENGINEER OR TECHNICIAN H. ANDERSON	DRAWN DFK	STATE OF MICHIGAN DEPARTMENT OF TRANSPORTATION TRAFFIC AND SAFETY DIVISION
POWER CONSUMPTION CYCLIC WATTS 6417 STEADY WATTS NO. OF ST. LIGHTS	COMPLETED INSPECTED SIGNATURE	DATE 11-29-92	SCALE 1"=30'	TRAFFIC SIGNAL INSTALLATION GRAND RIVER AVE. AT GRAND BLVD., DEXTER, & VINEWOOD CITY OF DETROIT WAYNE COUNTY
		AUTL. NO.	SHEET 1 OF 1	
		PLAN 82121-01-022		

22. M-1 (Woodward Ave.), City of Detroit
C.S. 82131, M.P. 7.00 - 7.50

Geometric and Operational Characteristics

M-1 (Woodward Ave.) is a six-lane facility with a center left-turn lane. Parallel parking is allowed on both sides. Intersections are signal controlled. Average daily traffic is 26,000 and the speed limit is 30 mph. This half-mile long study section runs from Hancock St. to Selden Ave.

Accident Characteristics

Twenty pedestrian/bicycle accidents during five years (1983-87) caused this half-mile long section to appear on the threshold review list.

Pedestrian/Bike accidents by year: '83-5, '84-4, '85-3, '86-2, '87-6.

Eleven pedestrian accidents occurred at or near the Forest St. (mp 7.07) intersection; five pedestrian accidents at or near the Canfield Ave. (mp 7.23) intersection. Forest St. appears on the intersection review list (No Action). Both the intersections are signalized but do not have pedestrian signals.

Recommendation

Add pedestrian signals at the Forest St./M-1 and Canfield Ave./M-1 intersections.

23. M-102 (Eight Mile Rd.), City of Detroit
C.S. 82143, M.P. 1.50 - 2.00

Geometric and Operational Characteristics

M-102 (Eight Mile Rd.) is a divided facility, varying from 6 to 8 lanes in the half-mile area under study. The study segment runs from Chrysler ramp 50C to Merrill St., and includes I-75 interchange ramps. There are directional crossovers, but no traffic signals within this segment of M-102. Speed limit is 40 mph and average daily traffic is about 80,500.

Accident Characteristics

Over-turn/Fixed-Object accidents by year: '83-14, '84-12, '85-9, '86-15, '87-14.
Sideswipe-Pass accidents by year: '83-1, '84-4, '85-10, '86-2, '87-1.

Fixed-object accidents occurred throughout this section of M-102 which consists of the I-75 interchange influence and service drives. Over half of them occurred during nighttime, wet/icy conditions. East M-102 Service Drive (mp 1.80) is on the intersection review list to be studied under the Interchange Improvement Program. Objects hit were 19 power poles, 5 highway signs, and 10 curbs. Pavement friction tests conducted in 1983 show a friction

number of 29 for the eastbound outside lane.

All sideswipe-pass accidents were reported within about 400 feet east of the northbound I-75 ramp (mp 1.51-1.58). One-third of these accidents involved lane-changing. More than half of the sideswipe accidents occurred in 1985 only; and they occurred under normal weather and surface conditions. No correctable sideswipe-pass pattern was found.

Recommendation

Safety Programs Unit will request pavement friction tests for the eastbound M-102.

24. M-102 (Eight Mile Rd), City of Detroit C.S. 82143, M.P. 7.00 - 7.50

Geometric and Operational Characteristics

M-102 (Eight Mile Rd) is an 8-lane divided facility with directional crossovers in the half-mile long segment under study which runs from Pelkey St. to Montrose Ave. The area is urbanized with business activity on both sides of the road. Its intersection with Schoenherr Rd. is signalized. Average daily traffic is about 60,800 and the speed limit is 40 mph along M-102.

Accident Characteristics

Pedestrian/Bike accidents by year: '83-3, '84-2, '85-2, '86-3, '87-0.

Sideswipe-Pass accidents by year: '83-0, '84-2, '85-7, '86-3, '87-0.

Six of the ten pedestrian accidents occurred at or near Schoenherr Rd (mp 7.11-7.12); four of which involved vehicles turning right from NB Schoenherr. (One fatal pedestrian accident occurred at an isolated location at mp 7.22 during wet, late night conditions.) Schoenherr is on the intersection review list, and has no pedestrian signals.

Of the twelve sideswipe-pass accidents, six occurred near Schoenherr area (mp 7.09-7.14); all on the EB M-102. No correctable pattern was identified for the sideswipe-pass accidents.

Recommendation

Add pedestrian signals at the M-102/Schoenherr Rd intersection.

25. M-39 (Southfield Fwy), City of Detroit
C.S. 82193, M.P. 1.00 - 3.50

Geometric and Operational Characteristics

M-39 (Southfield Fwy) is a 6-lane, depressed freeway with a continuous concrete median barrier in the study area, which is two and a half mile long, starting from M-5 to half-mile north of Seven Mile Rd. Average daily traffic varies from 119,900 to 150,400. The speed limit is 55 mph and the freeway is adequately lighted.

Accident Characteristics

Wet accidents occurred on five adjacent half-mile long sections of M-39; therefore, these sections were studied together.

- a) M.P. 1.00-1.50 (M-5 to Puritan Ave.); ADT 139,000.
Wet accidents by year: '83-10, '84-29, '85-33, '86-39, '87-51.
SS-Pass accidents by year: '83-1, '84-2, '85-5, '86-1, '87-1.

Yearly distribution shows wet accidents have an increasing trend. By direction, these accidents occurred: NB 31%, SB 69%. Average pavement friction number measured in the general area in 1987 was about 32 to 33. Sideswipe accidents had no correctable pattern.

- b) M.P. 1.50-2.00 (Puritan Ave. to Six Mile Road); ADT 139,000.
Wet accidents by year: '83-19, '84-25, '85-36, '86-25, '87-57.

Yearly distribution shows wet accidents have an increasing trend. By direction, wet accidents occurred: NB 49%, SB 51%. Average pavement friction number measured in the general area in 1987 was about 32 to 33.

- c) M.P. 2.00-2.50 (Six Mile Road to Curtis); ADT 150,400.
Wet accidents by year: '83-18, '84-25, '85-35, '86-33, '87-49.

Wet accidents have an increasing trend. By direction, their distribution was : NB 44%, SB 56%. Average pavement friction number measured in 1988 was 32 for the center and outside lanes.

- d) M.P. 2.50-3.00 (Curtis to 7 Mile Road); ADT 150,400.
Wet accidents by year: '83-16, '84-34, '85-27, '86-20, '87-34.

By direction, wet accidents occurred: NB 67%, SB 33%. Average pavement friction number measured in 1988 was 32 for the center and outside lanes.

- e) M.P. 3.00-3.50 (Seven Mile Road to Pembroke); ADT 119,900.
Wet accidents by year: '83-38, '84-48, '85-47, '86-38, '87-43.

By direction, wet accidents occurred: NB 68 %, SB 32%. Average pavement friction number measured in 1988 was 32 for the center and outside lanes.

Recommendation

Safety Programs Unit will request pavement friction tests.

26. I-75 (Chrysler Fwy), City of Detroit C.S. 82252, M.P. 3.00 - 4.00

Geometric and Operational Characteristics

I-75 (Chrysler Fwy) is an 8-lane, depressed freeway with a continuous concrete median barrier. The study section is one mile long, and consists of the interchange area from Davison Fwy. to the Six Mile Rd ramp 48B. Average daily traffic is 117,900 and the speed limit along this urban freeway is 55 mph.

Accident Characteristics

Icy accidents occurred on two adjacent half-mile long sections of I-75; therefore, these two sections were studied together.

a) M.P. 3.00-3.50 (Davison Fwy to the 6 Mile Rd. ramp 48A).
Icy accidents by year: '83-22, '84-9, '85-44, '86-25, '87-17, ('88-29)

Icy accidents first decreased during 1986 and 1987, and then increased in 1988. The accidents were split 47% on northbound, 53% on southbound.

b) M.P. 3.50-4.00 (Six Mile Rd. ramp 48A to ramp 48B).
Icy accidents by year: '83-8, '84-15, '85-39, '86-21, '87-23, ('88-20)

Icy accidents have a decreasing trend since 1985. Southbound I-75 experienced 63 percent icy accidents, northbound 37 percent.

Recommendation

District Maintenance to review the salting operations.

INTERSECTION "NO ACTION" LOCATIONS

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

DISTRICT 9

CALCULATED AT 0.5 STD DEV

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82053	07.93	US-24	6 MI ROAD	DETROIT CITY	TOTAL ACCIDENTS	183
209 LOCATIONS	8 Lane Divided	Urban/Signal	Greater than 20,000			
Right Angle	42	16.424	13.641	21.85	20	
Rear-End	113	34.117	29.856	46.91	30	

REMARKS: ANGLE: '85-17, '86-11, '87-14; VIOLATORS: NBD.-9,SBD.-8,EBD.-15,WBD.-10 ,ADT=72,500
 NO "ALL-RED" BECAUSE OF 8 SECS. OF "BACK TO BACK" YELLOW INTERVALS ON 6 MILE. REAR END: '85-41,
 '86-37, '87-35; WET COEFFICIENTS OF FRICTION ARE ADEQUATE. REAR ENDS ARE ABOUT EQUALLY DIVIDED BET
 N. & S. US-24. 12 INCH SIGNAL HEADS ARE INSTALLED. NO CORRECTABLE ACCIDENT PATTERN IDENTIFIED.
 NO ACTION.

82053	08.93	US-24	7 MILE ROAD	DETROIT CITY	TOTAL ACCIDENTS	101
209 LOCATIONS	8 Lane Divided	Urban/Signal	Greater than 20,000			
Right Angle	30	16.424	13.641	21.85	20	
Rear-End	56	34.117	29.856	46.91	30	

REMARKS: ADT=76,200 IN 1987
 ANGLE: '85-13,'86-8,'87-10; VIOLATORS:NBD.-6,SBD.-5,EBD.-10,WBD.-10
 THERE IS NO "ALL-RED" BECAUSE OF 9.6 SECS. OF "BACK TO BACK" YELLOW INTERVALS ON 7 MILE.
 12 INCH SIGNAL HEADS ARE INSTALLED.

REAR END: '85-17, '86-27, '87-31; MORE REAR ENDS OCCURED THAN LISTED BECAUSE THE MIDAS ZONE OF
 INFLUENCE IS ONLY 100' N. & S. OF 7 MILE RD. AND DOES NOT PICK UP REAR ENDS DUE TO BACKUPS. WET
 COEFFICIENTS OF FRICTION ARE ADEQUATE. NO CORRECTABLE ACCIDENT PATTERN IDENTIFIED. NO ACTION

82062	06.26	US-12	WYOMING AVE	DETROIT CITY	TOTAL ACCIDENTS	179
97 LOCATIONS	7 Lane-2 Way	Urban/Signal	Greater than 20,000			
Right Angle	48	13.893	13.794	20.74	20	
Left Turn	31	14.566	10.773	18.06	20	
Rear-End	45	22.429	29.175	40.39	30	

REMARKS: THE US-12(MICHIGAN) AMOCO SIGNAL MODERNIZATION PROJECT WILL INCLUDE THIS INTERSECTION
 AND WILL IN ADDITION TO REPLACING THE SIGNALS WITH NEW SIGNAL EQUIPMENT WILL ALSO PROVIDE
 PEDESTRIAN SIGNALS. AT PRESENT THERE IS NO "ALL RED" FOLLOWING BOTH THRU PHASES HOWEVER A 1.4
 SECOND "ALL RED" WILL BE ADDED IN ADDITION TO INCREASING THE YELLOW INTERVALS.

82062	08.14	US-12	LIVERNOIS	DETROIT CITY	TOTAL ACCIDENTS	116
59 LOCATIONS	Other	Urban/Signal	Greater than 20,000			
Rear-End	33	16.291	18.186	26.33	30	

REMARKS: THE TRAFFIC SIGNALS AT THIS INTERSECTION WILL BE UPGRADED WITH THE INSTALLATION OF NEW
 SOLID STATE CONTOLLERS ALONG WITH TIME-BASE COORDINATION AND 12" SIGNAL HEADS. THIS WILL BE PAID
 FOR WITH OIL OVERCHARGE FUNDS(AMOCO).

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

DISTRICT 9

CALCULATED AT 0.5 STD DEV

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82062	08.97	US-12	CLARK	DETROIT CITY	TOTAL ACCIDENTS	78
	2 LOCATIONS	8 LANE DIVIDED	URBAN/SIGNAL	10,000 TO 20,000		
RIGHT ANGLE	23				15	

REMARKS: '85-12, '86-8, '87-3; VIOLATORS: NBD.-5, SBD.-4, EBD.-4, WBD.-10
 10 ACCIDENT REPORTS WERE CHECKED AND REVEALED THAT 3 OF THE ACCIDENTS WERE MISCODED. THE THRESHOLD FOR ANGLE ACCIDENTS WITH AN ADT>20,000 IS 20 WHICH THIS INTERSECTION EXPERIENCED IF NO FURTHER REPORTS WERE MISCODED. AS PART OF THE AMOCO SIGNAL UPGRADING PROJECT AN "ALL RED" PHASE AFTER THE CLARK STREET GREEN/YELLOW PHASE AND INCREASING BOTH YELLOW INTERVALS SHOULD HELP REDUCE RIGHT ANGLE ACCIDENTS.

82062	09.43	US-12	W GR3	DETROIT CITY	TOTAL ACCIDENTS	36
	21 LOCATIONS	OTHER	URBAN/SIGNAL	10,000 TO 20,000		
RIGHT ANGLE	18	12.523	11.429	17.69	15	

REMARKS: '85-6, '86-11, '87-1; VIOLATORS: NBD.-5, SBD.-2, WBD.-5, EBD.-6
 DURING 1988 TO 10-31-88 THERE WERE 6 RIGHT ANGLE ACCIDENTS
 AMOCO OIL OVERCHARGE FUNDS HAVE BEEN PROGRAMMED TO INSTALL NEW TRAFFIC SIGNAL HEADS(12"), PEDESTRIAN SIGNALS AND NECESSARY CASE SIGNS.

82071	03.82	M-3	12TH ST	DETROIT CITY	TOTAL ACCIDENTS	49
	11 LOCATIONS	7 Lane-2 Way	Urban/Signal	10,000 to 20,000		
Left Turn	16	5.034	3.455	5.972	15	

REMARKS: ADT=13,800 IN 1987
 SEE ACTION LOCATION # 1

82072	01.13	M-3	RUSSELL	DETROIT CITY	TOTAL ACCIDENTS	58
	21 LOCATIONS	Other	Urban/Signal	10,000 to 20,000		
Rear-End	25	11.667	13.667	19.50	25	

REMARKS: ADT=19,600 IN 1987
 SEE ACTION LOCATION # 2

82072	01.53	M-3	ADELAIDE	DETROIT CITY	TOTAL ACCIDENTS	55
	59 LOCATIONS	Other	Urban/Signal	Greater than 20,000		
Rear-End	34	16.291	18.186	26.33	30	

REMARKS: ADT=37,600 IN 1987
 '85-10, '86-13, '87-13, '1988 TO 11-30 IS 11 ; WET-14 IN 1985 TO 1987
 NBD.(GRATIOT)-15, SBD.(GRATIOT)-13, EBD.(ADELAIDE)-3, WBD.(VERNOR)-5
 DURING 1983 SIGNAL WAS CHANGED TO SOLID STATE AND TIMING UPGRADED TO CURRENT STANDARDS.
 NO CORRECTABLE ACCIDENT PATTERN IDENTIFIED/NO ACTION.

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

DISTRICT 9

CALCULATED AT 0.5 STD DEV

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82072	02.77	M-3	MT ELLIOTT	DETROIT CITY	TOTAL ACCIDENTS	87
59 LOCATIONS	Other		Urban/Signal	Greater than 20,000		
Rear-End	33	16.291	18.186	26.33	30	

REMARKS: ADT=37,600 IN 1987, FRICTION TEST ADEQUATE
 '85-9, '86-13, '87-10, '1988 TO 11-30=8; WET-11 FROM 1985 TO 1987
 NBD.(GRATIOT)-10, SBD.(GRATIOT)-7, EBD.(MT. ELLIOTT)-8, WBD.(MT. ELLIOT.)-7
 SIGNAL EQUIPMENT MODERNIZED IN 1983 INCLUDING SOLID STATE CONTROLLER AND TIME BASE COORDINATION.
 NO CORRECTABLE ACCIDENT PATTERN IDENTIFIED/NO ACTION.

82072	03.23	M-3	E FOREST	DETROIT CITY	TOTAL ACCIDENTS	60
59 LOCATIONS	Other		Urban/Signal	Greater than 20,000		
Rear-End	31	16.291	18.186	26.33	30	

REMARKS: ADT=37,600 IN 1987, FRICTION TEST ADEQUATE
 '85-11, '86-13, '87-7, '1988 TO 11-30=5; WET-14 FROM 1985 TO 1987
 REAR ENDS WERE ABOUT EVENLY DIVIDED BETWEEN NBD. & SBD. GRATIOT-8 ACCIDENT REPORTS WERE REVIEWED
 AND REVEALED THAT 4 OF THE 8 WERE NOT REAR ENDS.
 SIGNAL EQUIPMENT MODERNIZED IN 1983 INCLUDING SOLID STATE CONTROLLER AND TIME BASE COORDINATION.
 NO CORRECTABLE ACCIDENT PATTERN IDENTIFIED/NO ACTION.

82072	03.86	M-3	VAN DYKE AVE	DETROIT CITY	TOTAL ACCIDENTS	132
59 LOCATIONS	Other		Urban/Signal	Greater than 20,000		
Right Angle	36	10.812	10.254	15.66	20	
Rear-End	50	16.291	18.186	26.33	30	

REMARKS: ADT=37,600 IN 1987 ON GRATIOT AND 16,600 ON VAN DYKE. 35 MPH SPEED LIMIT ON GRATIOT.
 SEE ACTION LOCATION # 3

82072	04.73	M-3	MCCLELLAN	DETROIT CITY	TOTAL ACCIDENTS	81
59 LOCATIONS	Other		Urban/Signal	Greater than 20,000		
Rear-End	39	16.291	18.186	26.33	30	

REMARKS: DURING THE PEAK HOUR (4:15 TO 5:15PM) GRATIOT HANDLES 3,200 VEHICLES NBD. IN 3 LANES AND
 MCCLELLAN HANDLES 152 VEHICLES IN 2 LANES.
 A TOTAL OF 82 ACCIDENTS WITH 52 INJURIES OCCURED DURING THE 3 YEAR YEARS(1985 TO 1987).REAR END
 ACCIDENTS ACCOUNTED FOR 39(48%) OF THE TOTAL ACCIDENTS.NEBD. GRATIOT ACCOUNTED FOR 22 REAR ENDS
 AND SWBD. GRATIOT ACCOUNTED FOR 12 REAR ENDS. A REVIEW OF SOME OF THE ACCIDENT REPORTS INDICATED
 THAT ONE OF THE REAR ENDS OCCURED AT THE SIGNAL AT THE I-94 SERVICE DRIVE , 200' N. OF MCCLELLAN
 AND 2 CODED AS REAR ENDS WERE NOT ACTUALLY REAR ENDS.
 SEE ACTION LOCATION # 4

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

DISTRICT 9

CALCULATED AT 0.5 STD DEV

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82072 04.92	M-3	W F019	DETROIT CITY		TOTAL ACCIDENTS	131
97 LOCATIONS	7 Lane-2 Way	Urban/Signal	Greater than 20,000			
Right Angle	34	13.893	13.794	20.74	20	
Left Turn	21	14.566	10.773	18.06	20	
Rear-End	64	22.429	29.175	40.39	30	

REMARKS: A TOTAL OF 132 ACCIDENTS WITH 57 INJURIES OCCURED AT THIS INTERSECTION(1985 TO 1987). REAR END ACCIDENTS ACCOUNTED FOR 57(43%), HEAD-ON LEFT- TURN-20(15%) AND ANGLES-33(25%). REAR END COLLISIONS WERE EVENLY SPLIT BETWEEN THE GRATIOT APPROACHES. HEAD-ON LEFT TURN ACCIDENTS MAINLY OCCURED FROM VEHICLES TURNING FROM HARPER. MOST OF THE RIGHT-OF-WAY VIOLATIONS CAUSING THE ANGLE ACCIDENTS WERE ON BOTH APPROACHES OF GRATIOT.
SEE ACTION LOCATION # 5

82072 05.50	M-3	FRENCH ROAD	DETROIT CITY		TOTAL ACCIDENTS	94
97 LOCATIONS	7 Lane-2 Way	Urban/Signal	Greater than 20,000			
Rear-End	55	22.429	29.175	40.39	30	

REMARKS: ADT=32,400 IN 1987. FRICTION TESTS ARE ADEQUATE.
A TOTAL OF 94 ACCIDENTS WITH 47 INJURIES OCCURED AT THIS INTERSECTION DURING THE THREE YEAR PERIOD 1985 TO 1987. REAR END ACCIDENTS ACCOUNTED FOR 55(59%). 35 OCCURED ON SBD. GRATIOT AND 20 ON NBD. GRATIOT. THERE WERE ALSO 3 OR 4 ON FRENCH RD. CODED AS "OTHER". THE PERCENTAGE OF REAR END ACCIDENTS OCCURING DURING WET PAVEMENT CONDITIONS WERE UNDER THE DISTRICT AVERAGE.
SEE ACTION LOCATION # 6

82072 05.86	M-3	CONNER	DETROIT CITY		TOTAL ACCIDENTS	147
97 LOCATIONS	7 Lane-2 Way	Urban/Signal	Greater than 20,000			
Right Angle	36	13.893	13.794	20.74	20	
Rear-End	68	22.429	29.175	40.39	30	

REMARKS: ADT=32,400 IN 1987. FRICTION TESTS ARE ADEQUATE.
A TOTAL OF 147 ACCIDENTS WITH 57 INJURIES OCCURED DURING 1985 TO 1987. ANGLE TYPE COLLISIONS ACCOUNTED FOR 36(24%) AND REAR-ENDS TOTALED 66(45%) OF THE TOTAL. VIOLATORS INVOLVED IN RIGHT-ANGLE ACCIDENTS INCLUDED 19 ON CONNER RD. AND 21 ON GRATIOT. CONNER RD. EXPERIENCED 11 REAR-ENDS AND GRATIOT 55 REAR-END ACCIDENTS. DURING 1988 TO NOV. 30 THERE WERE 33 REAR ENDS. THE PERCENTAGE OF REAR-END ACCIDENTS OCCURING DURING WET PAVEMENT CONDITIONS WAS COMPARABLE TO THE DISTRICT WIDE AVERAGE.
SEE ACTION LOCATION # 7

82072 05.98	M-3	OUTER DR	DETROIT CITY		TOTAL ACCIDENTS	99
97 LOCATIONS	7 Lane-2 Way	Urban/Signal	Greater than 20,000			
Right Angle	21	13.893	13.794	20.74	20	
Rear-End	43	22.429	29.175	40.39	30	

REMARKS: ANGLE: '85-10, '86-6, '87-5, VIOLATORS: NBD.GRATIOT-4, SBD.GRATIOT-10, EBD.OUTER DR.-2, WBD.OUTER DR.-5; THERE IS A 1.8 SEC. "ALL RED" FOLLOWING THE OUTER DR. CLEARANCE INTERVAL.
REAR END: '85-15, '86-14, '87-14; WET-11
MOST OF THE REAR ENDS OCCUR ON GRATIOT.
NO CORRECTABLE ACCIDENT PATTERN IDENTIFIED/NO ACTION.

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

DISTRICT 9

CALCULATED AT 0.5 STD DEV

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82072	07.56	M-3	6 MI ROAD	DETROIT CITY	TOTAL ACCIDENTS	128
97 LOCATIONS	7 Lane-2 Way		Urban/Signal	Greater than 20,000		
Right Angle	37	13.893	13.794	20.74	20	
Left Turn	23	14.566	10.773	18.06	20	

REMARKS: ADT=28,800 IN 1987

A TOTAL OF 128 ACCIDENTS WITH 56 INJURIES OCCURED AT THIS INTERSECTION DURING 1985 TO 1987. ANGLE TYPE COLLISIONS ACCOUNTED FOR 34(27%) AND OPPOSING LEFT TURN ACCIDENTS ACCOUNTED FOR 20(16%) OF THE TOTAL. VIOLATORS INVOLVED IN RIGHT-ANGLE ACCIDENTS INCLUDED 13 FROM SEYMOUR STREET, 4 FROM MCNICHOLS, 11 FROM SBD. GRATIOT AND 7 FROM NBD. GRATIOT. THE MAJORITY OF HEAD-ON LEFT TURN VIOLATORS APPEARED TO BE VEHICLES TURNING LEFT FROM SEYMOUR(12, OF WHICH 3 OCCURED DURING THE LEFT TURN PROHIBITION).

SEE ACTION LOCATION # 8

82072	08.19	M-3	7 MI ROAD	DETROIT CITY	TOTAL ACCIDENTS	121
97 LOCATIONS	7 Lane-2 Way		Urban/Signal	Greater than 20,000		
Right Angle	42	13.893	13.794	20.74	20	
Rear-End	48	22.429	29.175	40.39	30	

REMARKS: ADT=29,300 IN 1987, FRICTION TEST IS ADEQUATE.

A TOTAL OF 121 ACCIDENTS WITH 56 INJURIES OCCURED AT THIS INTERSECTION DURING 1985 TO 1987. ANGLE TYPE COLLISIONS ACCOUNTED FOR 42(35%) ALTHOUGH 5 WERE DRIVEWAY RELATED. REAR END ACCIDENTS ACCOUNTED FOR 47(39%) OF THE TOTAL. VIOLATORS INVOLVED IN RIGHT ANGLE ACCIDENTS INCLUDED 9 ON NBD. GRATIOT, 8 ON SBD. GRATIOT, 10 ON EBD. SEVEN MILE, AND 15 FROM WBD. SEVEN MILE. REAR END ACCIDENTS INCLUDED 13 ON NBD. GRATIOT, 17 ON SBD. GRATIOT AND THE REST ON SEVEN MILE.

SEE ACTION LOCATION # 9

82072	09.34	M-3	W M102	DETROIT CITY	TOTAL ACCIDENTS	158
97 LOCATIONS	7 Lane-2 Way		Urban/Signal	Greater than 20,000		
Rear-End	97	22.429	29.175	40.39	30	

REMARKS: DOCUMENTS HAVE BEEN SUBMITTED TO THE STATE ADMINISTRATIVE BOARD FOR APPROVAL TO MODERNIZE THE TRAFFIC SIGNAL EQUIPMENT AT THIS INTERSECTION. AS PART OF THIS WORK ESU WILL REVIEW THE SIGNAL TIMING.

82081	19.96	M-153	M-153	DEARB./DET	TOTAL ACCIDENTS	125
116 LOCATIONS	4 LANE-2 WAY		URBAN/SIGNAL	GREATER THAN 20,000		
RIGHT ANGLE	32	9.298	12.793	17.44	20	
LEFT TURN	31	8.808	8.560	12.96	20	
REAR-END	41	16.907	26.534	35.00	30	

REMARKS: A WORK ORDER DATED 7-19-88 HAS BEEN COMPLETED TO MODERNIZE THE SIGNALS INCLUDING A NEW SOLID STATE CONTROLLER, 12" SIGNAL HEADS, LOW LEVEL SIGNALS, AND PEDESTRIAN SIGNALS. THIS WORK ALONG WITH A REVISED TIMING PERMIT SHOULD HELP REDUCE ACCIDENTS AT THIS INTERSECTION. NO FURTHER ACTION RECOMMENDED.

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

DISTRICT 9

CALCULATED AT 0.5 STD DEV

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82111	03.04	I-375BS	RANDOLPH	DETROIT CITY	TOTAL ACCIDENTS	151
209 LOCATIONS	8 Lane Divided		Urban/Signal	Greater than 20,000		
Right Angle	33	16.424	13.641	21.85	20	
Left Turn	32	3.892	2.344	4.29	20	
Rear-End	54	34.117	29.856	46.91	30	

REMARKS: ANGLE: '85-11, '86-16, '87-6; VIOLATORS: NBD.-3,SBD.-7,EBD.-6,WBD.-17
 NOTE: A REVIEW OF THE ACCIDENT REPORTS FOR ANGLE VIOLATORS ON WESTBOUND JEFFERSON DID NOT REVEAL ANY CORRECTABLE ACCIDENT PATTERN. SOME OF THESE WERE TURNING LEFT ONTO RANDOLPH TO ENTER THE RENAISSANCE CENTER PARKING LOTS.

REAR END: '85-10, '86-23, '87-23; WET-17

FIFTEEN REAR END ACCIDENTS WERE REAR END LEFT TURN TYPE ACCIDENTS.MOST REAR END ACCIDENTS OCCURED ON EAST AND WESTBOUND JEFFERSON(25 ON EASTBOUND JEFFERSON AND 20 ON WESTBOUND JEFFERSON). ESU WILL REVIEW THE TIMING PERMIT TO DETERMINE IF THE YELLOW INTERVAL ON JEFFERSON CAN BE INCREASED TO PROVIDE MORE CLEARANCE TIME , OTHERWISE THERE IS NO CORRECTABLE ACCIDENT PATTERN.

82111	03.18	I-375BS	BEAUBIEN ST	DETROIT CITY	TOTAL ACCIDENTS	129
209 LOCATIONS	8 Lane Divided		Urban/Signal	Greater than 20,000		
Right Angle	35	16.424	13.641	21.85	20	
Rear-End	57	34.117	29.856	46.91	30	

REMARKS: ADT=42,500 IN 1987 , FRICTION TEST IS ADEQUATE.
 ANGLE: '85-18, '86-12, '87-5, 1988 TO 11-30=14; VIOLATORS:EBD.JEFFERSON-10, WBD.JEFFERSON-9, SBD.BEAUBIEN-8,NBD.BEAUBIEN-8.

AN "ALL RED" EXISTS AFTER THE JEFFERSON CLEARANCE INTERVAL.

REAR END: '85-21, '86-18, '87-23; WET-11

REAR END ACCIDENTS WERE EVENLY DIVIDED BETWEEN EAST AND WEST JEFFERSON. THERE WERE ONLY 5 OR 6 ON BEAUBIEN. NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82121	03.80	M-5	LAHSER ROAD	DETROIT CITY	TOTAL ACCIDENTS	86
97 LOCATIONS	7 Lane-2 Way		Urban/Signal	Greater than 20,000		
Right Angle	25	13.893	13.794	20.74	20	

REMARKS: RIGHT ANGLE: '85-11, '86-11, '87-3; VIOLATORS: NBD.LAHSER-9, SBD.LAHSER-7, EBD.GRAND RIVER-5, WBD. GRAND RIVER-4.

NOTE: YELLOW CLEARANCE INTERVAL WAS INCREASED TO 4.8 SECONDS IN 1985.

NO CORRECTABLE ACCIDENT PATTERN IDENTIFIED/NO ACTION.

82121	05.93	M-5	BRETTON DR	DETROIT CITY	TOTAL ACCIDENTS	86
238 LOCATIONS	5 Lane-2 Way		Urban/Signal	Greater than 20,000		
Right Angle	21	10.090	14.239	19.28	20	

REMARKS: ADT=29,600 IN 1987

22 ANGLE ACCIDENTS WERE LISTED ON THE THRESHOLD LIST AS OCCURING AT BRETTON.FENKELL(5 MILE) WHICH INTERSECTS GRAND RIVER AT ALMOST THE SAME POINT AS BRETTON EXPERIENCED THE MAJORITY OF THESE ANGLES (16).ONLY 3 ANGLES OCCURED FROM VEHICLES LEAVING BRETTON TO ENTER GRAND RIVER AND SINCE 3 OF THE 22 ANGLES OCCURED AT THE SOUTHFIELD SERVICE DRIVE AND WERE MISCODED TO BRETTON THIS BRINGS THE 3 YEAR TOTAL FOR ANGLE ACCIDENTS BELOW THE THRESHOLD FOR AN ADT OF GREATER THAN 20,000.

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

DISTRICT 9

CALCULATED AT 0.5 STD DEV

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82121	07.06	M-5	GREENFIELD ROAD	DETROIT CITY	TOTAL ACCIDENTS	112
238 LOCATIONS	5 Lane-2 Way		Urban/Signal	Greater than 20,000		
Left Turn	22	12.056	11.185	17.21	20	

REMARKS: LEFT TURNS ARE PROHIBITED FROM GRAND RIVER. THE ADT ON GREENFIELD IS HIGHER THAN ON GRAND RIVER.

HEAD-ON LEFT TURNS: '85-6, '86-9, '87-8, '88-6.
 A REVIEW OF THE ACCIDENT REPORTS REVEALED THAT SEVEN CODED AS HEAD-ON LEFT TURNS WERE ACTUALLY ACCIDENTS CAUSED BY VEHICLES ATTEMPTING A "U-TURN". THE MAJORITY OF THE ACTUAL HEAD-ON LEFT TURN ACCIDENTS WERE CAUSED BY VIOLATORS FROM SBD. GREENFIELD WITH THE YEARLY TOTAL AS FOLLOWS: '85-2, '86-6, '87-6, '88-3; THERE IS NO LEFT TURN PHASE FOR GREENFIELD.
 NO CORRECTABLE ACCIDENT PATTERN IDENTIFIED, HOWEVER THE DISTRICT HAS SUGGESTED THEY WILL CONTACT THE CITY ABOUT THE PLACEMENT OF "NO U-TURN SIGNS.

82131	00.18	M-1	WOODWARDS M1 SER DR	DETROIT CITY	TOTAL ACCIDENTS	95
202 LOCATIONS	Other		Urban/No Signal	Greater than 20,000		
Right Angle	31	3.152	1.307	2.883	20	
Left Turn	30	2.311	0.777	1.933	20	

REMARKS: THE HIGH ACCIDENT LISTING SHOWS THIS LOCATION AS ONE INTERSECTION NOT SIGNALIZED. ACTUALLY THERE ARE FOUR INTERSECTIONS AT THE WOODWARD AND 8 MILE SERVICE DRIVES WITH ALL FOUR BEING SIGNALIZED. A REVIEW OF SOME OF THE ACCIDENT REPORTS INDICATED THAT THE 31 RIGHT ANGLES AND 30 LEFT TURN ACCIDENTS COULD HAVE OCCURED AT ANY OF THE FOUR INTERSECTIONS, THUS THE TOTALS WOULD BE BELOW THE THRESHOLD VOLUMES FOR EACH OF THE FOUR INTERSECTIONS.

82131	00.57	M-1(WOODWARD)	STATE FAIR AVE.	DETROIT CITY	TOTAL ACCIDENTS	107
59 LOCATIONS	OTHER		URBAN/SIGNAL	GREATER THAN 20,000		
REAR-END	66	16.291	18.186	26.33	30	

REMARKS: ADT=38,600 IN 1987, REAR END: '85-26, '86-20, '87-20, '88-22; WET-22 DURING 1985 TO 1987 VIOLATORS; NBD.-30, SBD.-36, A SAMPLING OF SOME OF THE ACCIDENT REPORTS INDICATES THAT SOME OF THESE REAR ENDS OCCURED AT THE CROSSOVERS JUST NORTH AND SOUTH OF STATE FAIR.
 NO CORRECTABLE ACCIDENT PATTERN IDENTIFIED/NO ACTION.

82131	01.12	M-1	WOODWARD7 MI ROAD	DETROIT CITY	TOTAL ACCIDENTS	165
59 LOCATIONS	Other		Urban/Signal	Greater than 20,000		
Right Angle	47	10.812	10.254	15.66	20	
Rear-End	75	16.291	18.186	26.33	30	

REMARKS: ADT=38,600 IN 1987
 ANGLE: '85-18, '86-11, '87-11, '88-7; VIOLATORS: NBD. WOODWARD-11, SBD. WOODWARD-16, EBD. 7 MILE-4, WBD 7 MILE-9.
 THERE IS AN "ALL RED" AFTER THE A PHASE.
 HARD COPIES WERE REVIEWED AND REVEALED THAT 7 OF THE 47 ANGLE ACCIDENTS ON THE HIGH ACCIDENT LISTING WERE NOT ANGLE ACCIDENTS.
 THE YELLOW INTERVAL ON WOODWARD WAS REVISED 1-4-85.
 REAR END: '85-23, '86-25, '87-27, '88-18; WET-17, ICEY-4 DURING 1985 TO 1987.
 FRICTION TESTS ARE ADEQUATE.
 NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

DISTRICT 9

CALCULATED AT 0.5 STD DEV

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82131	01.66	M-1 WOODWARDSAVANA		DETROIT CITY	TOTAL ACCIDENTS	47
59 LOCATIONS	Other		Urban/Signal	Greater than 20,000		
Rear-End	37	16.291	18.186	26.33	30	

REMARKS: ADT=37,400 IN 1987, FRICTION TESTS ARE ADEQUATE.
 REAR-END: '85-6, '86-19, '87-12; WET-13
 SAVANNAH "TEE'S" IN TO NBD. WOODWARD. THE SIGNAL AT THIS "TEE" INTERSECTION WILL BE REMOVED BECAUSE OF THE CONSTRUCTION OF DIRECTIONAL X-OVERS ON WOODWARD TO SERVICE SAVANNAH.

82131	05.88	M-1 WOODWARDW GR5		DETROIT CITY	TOTAL ACCIDENTS	68
59 LOCATIONS	Other		Urban/Signal	Greater than 20,000		
Rear-End	38	16.291	18.186	26.33	30	

REMARKS: ADT=26,900 IN 1987, FRICTION TESTS ARE ADEQUATE.
 REAR-END: '85-8, '86-13, '87-17, '88-11; WET-8 DURING 1985 TO 1987.
 REAR ENDS ARE ABOUT EQUALLY DIVIDED AMONG THE FOUR LEGS OF THIS INTERSECTION.
 NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82131	05.97	M-1 WOODWARDMILWAUKEE		DETROIT CITY	TOTAL ACCIDENTS	61
59 LOCATIONS	Other		Urban/Signal	Greater than 20,000		
Right Angle	23	10.812	10.254	15.66	20	

REMARKS: ADT=12,800 IN 1987.
 RIGHT ANGLE: '85-6, '86-9, '87-8, '88-6; VIOLATORS: NBD.WOODWARD-10, SBD.WOODWARD-6, EBD.MILWAUKEE-4, WBD.MILWAUKEE-3.
 THERE IS NO "ALL-RED" HOWEVER A SAMPLING OF THE ACCIDENT REPORTS REVEALED SOME OF THE ACCIDENTS CODED AS ANGLES WERE NOT ANGLE ACCIDENTS, THUS THIS LOCATION IS AT OR BELOW THE THRESHOLD FOR ANGLE TYPE ACCIDENTS. NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82131	06.91	M-1 WOODWARDWARREN AVE		DETROIT CITY	TOTAL ACCIDENTS	134
59 LOCATIONS	Other		Urban/Signal	Greater than 20,000		
Right Angle	26	10.812	10.254	15.66	20	
Left Turn	32	7.084	5.186	8.728	20	
Rear-End	45	16.291	18.186	26.33	30	

REMARKS: ADT=26,000 IN 1987, FRICTION TESTS ARE ADEQUATE.
 RIGHT ANGLE: '85-10, '86-4, '87-12, '88-9; VIOLATORS: NBD.WOODWARD-10, SBD.WOODWARD-7, EBD.WARREN-6, WBD.WARREN-3. AN "ALL-RED" EXISTS FOLLOWING THE WOODWARD THRU PHASE.
 REAR END: '85-14, '86-14, '87-17, '88-8; WET-12 IN 1985 TO 1987.
 OPPOSING LEFT TURN: '85-6, '86-5, '87-10, '88-9; VIOLATORS: NBD.WOODWARD-4, SBD.WOODWARD-1, WBD.WARREN-10, EBD.WARREN-6.
 THERE IS NO LEFT-TURN PHASE HOWEVER THE YELLOW INTERVAL WAS INCREASED TO 4.9" IN 1982.
 NOTE: THE HIGH ACCIDENT LIST INDICATES 32 LEFT-TURN ACCIDENTS OCCURED, HOWEVER A REVIEW OF ACCIDENT REPORTS REVEALED ONLY 21 OCCURED DURING 1985 TO 1987. THE OTHER 11 WERE LEFT TURN REAR ENDS WHICH ARE INCLUDED IN THE REAR END TOTAL.
 NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

DISTRICT 9

CALCULATED AT 0.5 STD DEV

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82131	07.07	M-1 WOODWARDE FOREST ST	DETROIT CITY	TOTAL ACCIDENTS		77
59 LOCATIONS	Other	Urban/Signal	Greater than 20,000			
Right Angle	35	10.812	10.254	15.66	20	

REMARKS: RIGHT ANGLE: '85-4, '86-15, '87-16, '88-11; VIOLATORS DURING 1985 TO 1987, NBD.WOODWARD-5, SBD.WOODWARD-19, EBD.FOREST-11.(FOREST ST. IS ONE-WAY EASTBOUND)
THERE IS A 2% "ALL RED" FOLLOWING THE WOODWARD CLEARANCE INTERVAL.
A COMMERCIAL BUILDING IN THE NORTHWEST QUADRANT LIMITS THE SIGHT DISTANCE FOR SOUTHBOUND WOODWARD TRAFFIC TO OBSERVE EASTBOUND FOREST TRAFFIC.
NO CORRECTABLE ACCIDENT PATTERN IDENTIFIED/NO ACTION.

82131	08.66	M-1 WOODWARDLARNED ST	DETROIT CITY	TOTAL ACCIDENTS		59
16 LOCATIONS	6 Lane-Divided	Urban/Signal	10,000 to 20,000			
Right Angle	29	14.794	12.375	19.77	15	

REMARKS: ADT=10,900 IN 1987
'85-12, '86-2, '87-15, '88-16.
DURING THE THREE YEAR STUDY PERIOD(1985 TO 1987), THIS INTERSECTION EXPERIENCED 59 TOTAL ACCIDENTS WITH 30 INJURIES.RIGHT ANGLE ACCIDENTS ACCOUNTED FOR 49%(29) OF THE TOTAL ACCIDENT HISTORY.THESE RIGHT ANGLE COLLISIONS INCLUDED 23 SOUTHBOUND WOODWARD VIOLATORS, 1 NORTHBOUND WOODWARD AND 5 EASTBOUND LARNED VIOLATORS.
SEE ACTION LOCATION # 10

82132	00.14	M-3 CONN. LARNED ST	DETROIT CITY	TOTAL ACCIDENTS		91
16 LOCATIONS	6 Lane-Divided	Urban/Signal	10,000 to 20,000			
Right Angle	50	14.794	12.375	19.77	15	

REMARKS: ADT=14,000 IN 1987
DURING THE THREE YEAR STUDY PERIOD(1985 TO 1987), THIS INTERSECTION EXPERIENCED 91 TOTAL ACCIDENTS WITH 39 INJURIES. RIGHT-ANGLE TYPE ACCIDENTS ACCOUNTED FOR 55 PERCENT(50) OF THE TOTAL ACCIDENT HISTORY.THESE RIGHT ANGLE COLLISIONS INCLUDED 29 SOUTHBOUND RANDOLPH VIOLATORS, 12 EASTBOUND LARNED AND 8 NORTHBOUND RANDOLPH VIOLATORS.
SEE ACTION LOCATION # 11

82141	03.18	M-102 LAHSER ROAD	S'FLD/DET. C	TOTAL ACCIDENTS		90
80 LOCATIONS	6 Lane-Divided	Urban/Signal	Greater than 20,000			
Right Angle	21	14.237	13.813	20.93	20	
Rear-End	53	30.451	30.800	46.03	30	

REMARKS: ADT=61,300 IN 1987
ANGLE: '85-13, '86-4, '87-5, '88-16; VIOLATORS IN 1985 TO 1987, EBD. 8 MILE-7, WBD. 8 MILE-3, NBD. LAHSER-5, SBD.LAHSER-6.
REAR END: '85-22, '86-15, '87-16; WET -15, ICEY-5.
NOTE: DURING 1985 THE SIGNALS AT THIS LOCATION WERE MODERNIZED INCLUDING A NEW SOLID STATE CONTROLLER WITH TIME BASED COORDINATION, NEW(12") OVERHEAD SIGNALS & PED SIGNALS AND THE RELOCATION OF THE FOUR-WAY CASE SIGNS.
NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

DISTRICT 9

CALCULATED AT 0.5 STD DEV

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82141	05.63	M-102	N NORTHLAND DR	S'FLD/DET. C	TOTAL ACCIDENTS	33
1395 LOCATIONS	8 Lane Divided		Urban/No Signal	Greater than 20,000		
Right Angle	22	4.564	2.295	4.577	20	

REMARKS: ADT=105,700 IN 1987

RIGHT ANGLE: '85-5, '86-15, '87-2; VIOLATORS: WBD. 8 MILE-15, NBD. TO NORTHLAND DR.-5, SBD.-2

NOTE: A WORK ORDER WAS WRITTEN DURING LATE 1989 TO INSTALL 12" SIGNAL HEADS AND A LOW-LEVEL INDICATION FOR NORTHLAND DRIVE.

82142	00.33	M-102	MALI UNKNOWN	S'FLD/DET CY	TOTAL ACCIDENTS	113
641 LOCATIONS	6 Lane-Divided		Urban/No Signal	Greater than 20,000		
Rear-End	71	9.572	6.507	11.29	30	

REMARKS: ADT=120,000 IN 1987

REAR END: '85-23, '86-29, '87-19; WET-25, ICEY-12.

THE MIDAS ZONE OF INFLUENCE AT THIS LOCATION IS 1,742' LONG THUS REAR END ACCIDENTS THAT OCCUR AT ANY PLACE IN THE ZONE OF INFLUENCE WILL BE CODED TO THIS AREA. A SAMPLING OF ACCIDENT REPORTS REVEALED THAT REAR ENDS WERE OCCURRING AT THE FOLLOWING LOCATIONS:EBD. 8 MILE OVERPASS AT GREENFIELD, 8 MILE AT OXLEY, SEVERAL OCCURED ON THE LODGE FREEWAY SERVICE RD., 8 MILE OVERPASS AT THE LODGE FREEWAY. THERE WERE ALSO SEVERAL REAR ENDS INVOLVING STALLED VEHICLES ON 8 MILE RD. NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

82142	01.16	M-102	SCHAEFEER HWY	S'FLD/DET CY	TOTAL ACCIDENTS	141
209 LOCATIONS	8 Lane Divided		Urban/Signal	Greater than 20,000		
Right Angle	22	16.424	13.641	21.85	20	
Rear-End	95	34.117	29.856	46.91	30	

REMARKS: RIGHT ANGLE: '85-5, '86-15, '87-2; VIOLATORS: EBD. 8 MILE-11, WBD. 8 MILE-6, SBD.-2, NBD.-3.

REAR END: '85-29, '86-42, '87-24; WET-26, ICEY-7.

53 REAR END ACCIDENTS OCCURED ON EBD. 8 MILE. FRICTION TESTS ARE ADEQUATE. THE ADT ON 8 MILE DURING 1987 WAS 124,200. ACCIDENT REPORTS WERE REVIEWED BUT NO APPARENT REASON OTHER THAN THE HIGH ADT COULD BE FOUND FOR THE REAR ENDS.

NO CORRECTABLE ACCIDENT PATTERN/ NO ACTION.

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

DISTRICT 9						CALCULATED AT 0.5 STD DEV	
ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL	
82142	01.66	M-102	MEYERS	OAK PARK/DET	TOTAL ACCIDENTS	87	
209 LOCATIONS	8	Lane Divided	Urban/Signal	Greater than 20,000			
Rear-End	52	34.117	29.856	46.91	30		

REMARKS: ADT 55,100 Speed 40 mph Signal No. 82142-4

3 yrs. (1985-87)

DIR.	TOT.	RE	RE-WET	YR.	TOT.	RE
EB	44	28	11	85	33	22
WB	30	22	8	86	41	24
SB	5	0	0	87	15	7
NB	7	2	1	88	35	20

TOTAL AND REAR-END ACCIDENTS HAVE DECREASED FOR LAST THREE YEARS. SIGNAL TIMING WAS REVISED IN JANUARY 1989.

NO ACTION.

DISTRICT 9						CALCULATED AT 0.5 STD DEV	
ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL	
82142	02.15	M-102	WYOMING	OAK PARK/DET	TOTAL ACCIDENTS	111	
209 LOCATIONS	8	Lane Divided	Urban/Signal	Greater than 20,000			
Right Angle	26	16.424	13.641	21.85	20		
Rear-End	60	34.117	29.856	46.91	30		

REMARKS: ADT 70,660 Speed 40 mph Signal No. 82142-5

3 yrs. (1985-87)

DIR.	TOT.	ANGL	RE	RE-WET	YR.	TOT.	ANGL	RE
EB	43	6	28	5	85	32	9	17
WB	50	13	31	9	86	60	17	34
SB	5	3	0	0	87	21	0	11
NB	13	4	1	0	88	28	3	18

YEARLY DISTRIBUTION SHOWS BOTH RIGHT ANGLE AND REAR-END ACCIDENTS DOUBLED DURING 1986, AND THEN DECREASED TO INSIGNIFICANT NUMBERS DURING THE NEXT TWO YEARS. SIGNAL TIMING WAS REVISED IN FEBRUARY 1989.

NO ACTION.

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

DISTRICT 9

CALCULATED AT 0.5 STD DEV

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82142	03.14	M-102	LIVERNOIS	FERNDAL/DET	TOTAL ACCIDENTS	129
209 LOCATIONS	8 Lane Divided	Urban/Signal	Greater than 20,000			
Right Angle	31	16.424	13.641	21.85	20	
Rear-End	73	34.117	29.856	46.91	30	

REMARKS: ADT 105,700 Speed 40 mph Signal No. 82142-7

3 yrs. (1985-87)

DIR.	TOT.	ANGL	RE	RE-WET	YR.	TOT.	ANGL	RE
EB	67	12	42	8	85	43	7	22
WB	29	10	16	5	86	51	17	28
SB	4	2	0	0	87	40	7	27
NB	30	7	16	7	88	30	5	18

YEARLY DISTRIBUTION INDICATES TOTAL, ANGLE, AND REAR-END ACCIDENTS HAVE BEEN DECREASING SINCE 1986. ON EASTBOUND M-102, "NO LEFT TURN" CASE SIGN FACING WEST WAS REVISED IN OCTOBER 1988.

NO ACTION.

82143	01.13	M-102	JOHN R ST	HAZEL PK/DET	TOTAL ACCIDENTS	214
209 LOCATIONS	8 Lane Divided	Urban/Signal	Greater than 20,000			
Right Angle	26	16.424	13.641	21.85	20	
Rear-End	158	34.117	29.856	46.91	30	

REMARKS: ADT 101,700 Speed 40 mph Signal No. 82143-3

3 yrs. (1985-87)

DIR.	TOT.	ANGL	RE	RE-WET	YR.	TOT.	ANGL	RE
EB	128	7	107	19	85	76	10	52
WB	46	8	32	7	86	75	9	59
SB	12	6	4	0	87	63	7	47
NB	25	5	12	4	88	61	11	39

TWO-THIRDS OF THE REAR-END ACCIDENTS AT THIS INTERSECTION OCCURRED ON THE EASTBOUND APPROACH ONLY, APPARENTLY BECAUSE OF HIGH SPEEDS SINCE THERE ARE NO SIGNALS BETWEEN THE STATE FAIR GROUNDS AND THIS INTERSECTION. NO DISPROPORTIONATE PATTERN OF RIGHT ANGLE ACCIDENTS FOUND ON ANY PARTICULAR APPROACH.

NO ACTION.

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

DISTRICT 9

CALCULATED AT 0.5 STD DEV

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82143	01.29	M-102	E M102 SER DR	HAZEL PK/DET	TOTAL ACCIDENTS	159
641 LOCATIONS	6 Lane-Divided		Urban/Signal	Greater than 20,000		
Right Angle	42	4.040	2.136	4.156	20	
Left Turn	26	1.950	0.764	1.739	20	
Rear-End	70	9.572	6.507	11.29	30	

REMARKS: ADT 115,720 Speed 40 mph Signal No. 82252-1

3 yrs. (1985-87)

DIR.	TOT.	ANGL	LT	RE	YR.	TOT.	ANGL	LT	RE
EB	81	6	5	59	85	58	17	6	28
WB	100	21	20	47	86	57	11	8	30
SB	43	13	7	14	87	46	14	9	14
Other	22	9	0	10	88	47	22	12	11

INTERCHANGE AREA OF M-102 /I-75. SIGNALIZED INTERSECTIONS WHERE M-102 SERVICE DRIVES INTERSECT SOUTHBOUND I-75 SERVICE DRIVE. SAFETY PROGRAMS UNIT WILL REVIEW THIS LOCATION AS PART OF THE INTERCHANGE IMPROVEMENT PROGRAM (INTERCHANGE NO. 52).

NO ACTION.

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82143	01.80	M-102	E M102 SER DR	HAZEL PK/DET	TOTAL ACCIDENTS	161
1395 LOCATIONS	8 Lane Divided		Urban/Signal	Greater than 20,000		
Right Angle	47	4.564	2.295	4.577	20	
Left Turn	29	1.811	0.799	1.705	20	
Rear-End	64	10.570	6.297	11.58	30	

REMARKS: ADT 115,720 Speed 40 mph Signal No. 82252-1

3 Yrs. (1985-87)

DIR.	TOT.	ANGL	LT	RE	YR.	TOT.	ANGL	LT	RE
EB	75	26	24	19	85	57	21	12	16
WB	42	2	1	29	86	55	14	3	31
NB	48	16	3	23	87	49	12	9	17
Other	14	3	1	7	88	37	10	11	11

INTERCHANGE AREA OF M-102/I-75. SIGNALIZED INTERSECTIONS WHERE M-102 SERVICE DRIVES INTERSECT NORTHBOUND I-75 SERVICE DRIVE. SAFETY PROGRAMS UNIT WILL REVIEW THIS LOCATION AS PART OF THE INTERCHANGE IMPROVEMENT PROGRAM (INTERCHANGE NO. 52).

NO ACTION.

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

DISTRICT 9
 ACC # STD MEAN UCL THRESHOLD PERCENT
 TYPE ACC DEV NUMBER OF TOTAL
 CALCULATED AT 0.5 STD DEV

82143	02.15	M-102	DEQUINDRE AVE	WARREN/DETR.	TOTAL ACCIDENTS	175
209 LOCATIONS	8 Lane Divided	Urban/Signal	Greater than 20,000			
Right Angle	36	16.424	13.641	21.85	20	
Rear-End	110	34.117	29.856	46.91	30	

REMARKS: ADT 105,700 Speed 40 mph Signal No. 82143-5

3 yrs. (1985-87)

DIR.	TOT.	ANGL	RE	RE-WET	YR.	TOT.	ANGL	RE
EB	76	10	51	16	85	63	10	39
WB	54	11	40	7	86	66	15	45
SB	25	7	11	5	87	46	11	26
NB	20	8	8	3	88	70	12	38

ANGLE AND REAR-END ACCIDENTS HAVE A DOWNWARD TREND FOR TWO YEARS SINCE 1986. NO CORRECTABLE ACCIDENT PATTERN WAS FOUND.

NO ACTION.

82143	03.13	M-102	RYAN AVE	WARREN/DETR.	TOTAL ACCIDENTS	94
209 LOCATIONS	8 Lane Divided	Urban/Signal	Greater than 20,000			
Right Angle	28	16.424	13.641	21.85	20	
Rear-End	58	34.117	29.856	46.91	30	

REMARKS: ADT 105,700 Speed 40 mph Signal No. 82143-6

3 yrs. (1985-87)

DIR.	TOT.	ANGL	RE	RE-WET	YR.	TOT.	ANGL	RE
EB	62	16	40	12	85	40	12	25
WB	18	5	13	2	86	29	9	20
SB	3	3	0	0	87	27	7	14
NB	10	4	4	0	88	29	7	18

RECOMMENDATION: FOR RECOMMENDATION, SEE INTERSECTION ACTION LOCATION NO. 12.

82143	04.12	M-102	MOUND ROAD	WARREN/DET.	TOTAL ACCIDENTS	131
209 LOCATIONS	8 Lane Divided	Urban/Signal	Greater than 20,000			
Right Angle	36	16.424	13.641	21.85	20	
Rear-End	73	34.117	29.856	46.91	30	

REMARKS: ADT 105,700 Speed 40 mph Signal No. 82143-7

3 yrs. (1985-87)

DIR.	TOT.	ANGL	RE	RE-WET	YR.	TOT.	ANGL	RE
EB	79	10	55	15	85	59	14	34
WB	32	9	17	4	86	71	20	38
SB	28	15	8	1	87	42	11	26
NB	26	10	12	6	88	57	10	40

TOTAL AND ANGLE ACCIDENTS HAVE DOWNWARD TREND FOR THE LAST TWO YEARS SINCE 1987. NO CORRECTABLE ACCIDENT PATTERN WAS FOUND. NO ACTION.

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)
 DISTRICT 9

CALCULATED AT 0.5 STD DEV

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82143	05.13	M-102	M53	WARREN/DETR.	TOTAL ACCIDENTS	165
209 LOCATIONS	8 Lane Divided		Urban/Signal		Greater than 20,000	
Right Angle	31	16.424	13.641	21.85	20	
Rear-End	100	34.117	29.856	46.91	30	

REMARKS: ADT 112,600 Speed 40 mph Signal No. 82143-8

3 Yrs. (1985-87)

DIR.	TOT.	ANGL	RE	RE-WET	YR.	TOT.	ANGL	RE
EB	85	13	59	15	85	59	13	33
WB	57	21	27	9	86	70	20	37
SB	17	7	7	1	87	59	13	37
NB	29	5	14	1	88	55	11	32

ANGLE ACCIDENTS DECREASED DURING THE LAST TWO YEARS SINCE 1987. NO CORRECTABLE REAR-END ACCIDENT PATTERN WAS FOUND.

NO ACTION.

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82143	06.25	M-102	JCT M-97 & M-102	WARREN/DETR.	TOTAL ACCIDENTS	142
209 LOCATIONS	8 Lane Divided		Urban/Signal		Greater than 20,000	
Right Angle	53	16.424	13.641	21.85	20	
Rear-End	64	34.117	29.856	46.91	30	

REMARKS: ADT 89,130 Speed 40 mph Signal No. 82143-9

3 yrs. (1985-87)

DIR.	TOT.	ANGL	RE	YR.	TOT.	ANGL	RE
EB	81	20	46	85	58	25	22
WB	18	3	11	86	54	20	25
SWB	8	5	1	87	32	9	17
NEB	37	26	6	88	45	11	29

YEARLY DISTRIBUTION SHOWS THAT THE ANGLE ACCIDENTS HAVE A DOWNWARD TREND FOR THREE YEARS SINCE 1986. DUE TO HEAVY LEFT-TURN MOVEMENTS FROM EASTBOUND M-102 TO NORTH M-97 AND THE OBLIQUE INTERSECTION LAYOUT, THIS INTERSECTION OPERATES UNDER "OPTICALLY PROGRAMMABLE" SIGNAL HEADS, WHICH SHOULD BE VISIBLE ONLY WHEN THE DRIVER COMES WITHIN A PROGRAMMED DISTANCE.

THIS INTERSECTION WAS FIELD-REVIEWED IN 1987, AND IT WAS RECOMMENDED TO INSTALL A LOW LEVEL LEFT-TURN INDICATION IN THE NORTHWEST QUADRANT TO SUPPLEMENT THE EXISTING LEFT-TURN HEADS; AND THAT THESE PROGRAMMABLE HEADS BE BOTTOM-TETHERED TO STABILIZE THEM. THESE IMPROVEMENTS HAVE BEEN IMPLEMENTED.

NO ACTION.

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

DISTRICT 9

CALCULATED AT 0.5 STD DEV

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82143	07.11	M-102	SCHOENHERR ROAD	WARREN/DETR.	TOTAL ACCIDENTS	104
209 LOCATIONS	8 Lane Divided		Urban/Signal	Greater than 20,000		
Right Angle	24	16.424	13.641	21.85	20	
Rear-End	51	34.117	29.856	46.91	30	

REMARKS: ADT 70,700 Speed 40 mph Signal No. 82143-10

3 yrs. (1985-87)

DIR.	TOT.	ANGL	RE	RE-WET	YR.	TOT.	ANGL	RE
EB	39	10	17	4	85	39	6	16
WB	30	6	16	6	86	45	13	26
SB	13	4	7	2	87	20	5	9
NB	22	4	11	2	88	41	11	24

YEARLY AND DIRECTION DISTRIBUTION OF THE ACCIDENTS REVEALED NO CORRECTABLE ACCIDENT PATTERN.
SIGNAL TIMING WAS REVISED IN OCTOBER 1989. NO ACTION.

82144	00.08	M-102	HAYES ST	E.DET/DET. C	TOTAL ACCIDENTS	58
209 LOCATIONS	8 Lane Divided		Urban/Signal	Greater than 20,000		
Right Angle	24	16.424	13.641	21.85	20	

REMARKS: ADT 70,700 Speed 40 mph Signal No. 82144-2

3 yrs. (1985-87)

DIR.	TOT.	ANGL	YR.	TOT.	ANGL
EB	15	7	85	14	8
WB	13	2	86	24	11
NB	21	10	87	20	5
Other	9	5	88	21	12

RECOMMENDATION: FOR RECOMMENDATION, SEE INTERSECTION ACTION LOCATION NO. 13.

82144	01.99	M-102	BEACONSFIELD	HARPER WOODS	TOTAL ACCIDENTS	68
209 LOCATIONS	8 Lane Divided		Urban/Signal	Greater than 20,000		
Right Angle	32	16.424	13.641	21.85	20	

REMARKS: ADT 70,000 Speed 40 mph Signal No. 82144-10

3 yrs. (1985-87)

DIR.	TOT.	ANGL	YR.	TOT.	ANGL
EB	18	9	85	20	10
WB	9	1	86	25	14
SB	14	10	87	23	8
NB	27	12	88	33	14

WORK WAS AUTHORIZED IN FEBRUARY 1989 TO MODERNIZE THIS INTERSECTION WITH OVERSIZE (12") SIGNAL HEADS, ONE LOW-LEVEL SIGNAL HEAD IN THE SOUTHWEST QUADRANT, A 4-WAY ILLUMINATED CASE SIGN, AND SOLID STATE CONTROLLER WITH TBC. "ALL RED" IN PLACE SINCE JULY 1989. FLASHER SCHEDULE MIDNIGHT TO 6 A.M. DAILY.
NO ACTION.

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

DISTRICT 9

CALCULATED AT 0.5 STD DEV

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82151	00.86	M-53	HARPER	DETROIT CITY	TOTAL ACCIDENTS	107
24 LOCATIONS	6 Lane-2 Way		Urban/Signal		Greater than 20,000	
Left Turn	34	15.863	19.167	27.10	20	

REMARKS: ADT 70,700 Speed 30 mph Signal No. 82151-1

3 Yrs (1985-87)

DIR.	TOT.	LT	YR.	TOT.	LT
NWB	35	12	85	31	11
SEB	40	16	86	35	14
NEB	13	2	87	41	9
SWB	19	4	88	23	5

(DUE TO THE INTERSECTION LAYOUT, ACCIDENTS THAT WERE CODED AS "OTHER" HAD TO BE RE-DISTRIBUTED TO THEIR PROPER DIRECTION).

RECOMMENDATION: FOR RECOMMENDATION, SEE INTERSECTION ACTION LOCATION NO. 14.

82151	02.91	M-53	6 MI ROAD	DETROIT CITY	TOTAL ACCIDENTS	173
97 LOCATIONS	7 Lane-2 Way		Urban/Signal		Greater than 20,000	
Right Angle	43	13.893	13.794	20.74	20	
Left Turn	41	14.566	10.773	18.06	20	
Rear-End	46	22.429	29.175	40.39	30	

REMARKS: ADT 40,860 Speed 35 mph Signal No. 82151-7

3 Yrs. (1985-87)

DIR.	TOT.	ANGL	LT	RE	YR.	TOT.	ANGL	LT	RE
NB	42	11	6	12	85	60	13	17	18
SB	44	10	9	10	86	62	14	12	19
EB	40	9	11	12	87	51	16	11	9
WB	46	12	15	12	88	40	5	7	20

YEARLY DISTRIBUTION SHOWS THAT TOTAL AND LEFT-TURN ACCIDENTS HAVE BEEN DECREASING FOR THE LAST FOUR YEARS, BUT ANGLE ACCIDENTS REMAINED THE SAME AND THEN SHARPLY DECREASED IN 1988. SINCE 1988, THE EAST LEG OF THIS INTERSECTION HAS BEEN CLOSED DUE TO THE DETROIT CITY AIRPORT EXPANSION.

NO ACTION.

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

DISTRICT 9

CALCULATED AT 0.5 STD DEV

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82151	03.92	M-53	7 MI ROAD	DETROIT CITY	TOTAL ACCIDENTS	167
97 LOCATIONS	7 Lane-2 Way		Urban/Signal	Greater than 20,000		
Right Angle	51	13.893	13.794	20.74	20	
Left Turn	29	14.566	10.773	18.06	20	
Rear-End	44	22.429	29.175	40.39	30	

REMARKS: ADT 33,200 Speed 35 mph Signal No. 82151-8

3 Yrs. (1985-87)

DIR.	TOT.	ANGL	LT	RE	YR.	TOT.	ANGL	LT	RE
NB	47	9	14	12	85	61	23	10	12
SB	39	9	4	11	86	59	10	13	23
EB	42	17	7	12	87	48	18	6	9
WB	39	16	4	9	88	94	18	11	43

RECOMMENDATION: FOR RECOMMENDATION, SEE INTERSECTION ACTION LOCATION NO. 15

82151	04.42	M-53	OUTER DR	DETROIT CITY	TOTAL ACCIDENTS	106
97 LOCATIONS	7 Lane-2 Way		Urban/Signal	Greater than 20,000		
Right Angle	23	13.893	13.794	20.74	20	
Rear-End	42	22.429	29.175	40.39	30	

REMARKS: ADT 33,220 Speed 35 mph Signal No. 82151-9

3 Yrs. (1985-87)

DIR.	TOT.	ANGL	RE	YR.	TOT.	ANGL	RE
NB	27	6	12	85	37	7	18
SB	33	9	16	86	41	8	16
EB	30	4	10	87	28	8	8
WB	16	4	4	88	21	6	7

YEARLY DISTRIBUTION INDICATES TOTAL, ANGLE, AND REAR-END ACCIDENTS HAVE A DOWNWARD TREND FOR THE LAST TWO YEARS.

NO ACTION.

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

DISTRICT 9

CALCULATED AT 0.5 STD DEV

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82171	00.90	M-97	6 MI ROAD	DETROIT CITY	TOTAL ACCIDENTS	87
88 LOCATIONS	2 Lane-2 Way		Urban/Signal	10,000 to 20,000		
Right Angle	18	5.761	7.795	10.68	15	
Left Turn	16	3.434	3.477	5.194	15	
Rear-End	34	7.556	11.511	15.29	25	

REMARKS: ADT 23,920 Speed 30 mph Signal No. 82171-1

3 Yrs. (1985-87)

DIR.	TOT.	ANGL	LT	RE	YR.	TOT.	ANGL	LT	RE
NWB	18	4	1	10	85	34	5	8	13
SEB	20	6	3	7	86	29	6	4	14
NEB	28	6	8	5	87	25	7	4	7
SWB	20	2	4	12	88	9	2	1	4

(ACCIDENTS CODED UNDER THE "OTHER" DIRECTION HAD TO BE RE-DISTRIBUTED TO THEIR PROPER DIRECTION.)

RECOMMENDATION: FOR RECOMMENDATION, SEE INTERSECTION ACTION LOCATION NO. 16.

82171	01.91	M-97	7 MI ROAD	DETROIT CITY	TOTAL ACCIDENTS	118
220 LOCATIONS	4 Lane-2 Way		Urban/Signal	10,000 to 20,000		
Right Angle	17	7.083	9.736	13.28	15	
Left Turn	37	8.269	7.277	11.41	15	
Rear-End	44	8.787	13.427	17.82	25	

REMARKS: ADT 26,060 Speed 30 mph Signal No. 82171-2

3 Yrs. (1985-87)

DIR.	TOT.	ANGL	LT	RE	YR.	TOT.	ANGL	LT	RE
NB	38	6	8	13	85	36	4	15	14
SB	14	2	17	12	86	47	7	14	16
EB	21	5	5	9	87	35	6	8	14
WB	25	4	7	10	88	46	14	10	16

RECOMMENDATION: FOR RECOMMENDATION, SEE INTERSECTION ACTION LOCATION NO. 17.

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

DISTRICT 9

CALCULATED AT 0.5 STD DEV

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82211	14.43	M-85	VISGER ROAD	DETROIT CITY	TOTAL ACCIDENTS	47
	16 LOCATIONS	6 Lane-Divided	Urban/Signal	10,000 to 20,000		
Right Angle	20	14.794	12.375	19.77	15	

REMARKS: ADT 46,000 Speed 35 mph Signal No. 82211-2

3 Yrs. (1985-87)						
DIR.	TOT.	ANGL		YR.	TOT.	ANGL
NEB	3	0		85	10	4
SWB	20	4		86	19	5
SEB	5	4		87	18	11
NWB	19	12		88	16	8

(DUE TO THE INTERSECTION LAYOUT, ACCIDENTS THAT WERE CODED UNDER "OTHER" DIRECTION HAD TO BE RE-DISTRIBUTED TO THEIR PROPER DIRECTION.)

RECOMMENDATION: FOR RECOMMENDATION, SEE INTERSECTION ACTION LOCATION NO. 18.

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82211	15.05	M-85	SCHAEFER HWY	DETROIT CITY	TOTAL ACCIDENTS	151
	16 LOCATIONS	6 Lane-Divided	Urban/Signal	10,000 to 20,000		
Right Angle	47	14.794	12.375	19.77	15	
Left Turn	15	4.451	4.750	6.976	15	
Rear-End	65	13.214	12.438	19.05	25	

REMARKS: ADT 41,360 Speed 35 mph Signal No. 82211-1

3 Yrs. (1985-87)									
DIR.	TOT.	ANGL	LT	RE	YR.	TOT.	ANGL	LT	RE
NEB	38	17	6	9	85	41	11	4	18
SWB	19	5	4	6	86	58	17	5	22
SEB	56	15	4	27	87	47	14	6	19
NWB	36	10	1	21	88	42	13	8	11
Other	2	0	0	2					

(DUE TO THE INTERSECTION LAYOUT, ACCIDENTS THAT HAD BEEN CODED UNDER THE "OTHER" DIRECTION HAD TO BE RE-DISTRIBUTED TO THEIR PROPER DIRECTION.)

RECOMMENDATION: FOR RECOMMENDATION, SEE INTERSECTION ACTION LOCATION NO. 19.

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82801	09.80	M-14	BURT ROAD	DETROIT CITY	TOTAL ACCIDENTS	27
	62 LOCATIONS	7 Lane-2 Way	Urban/Signal	Less than 10,000		
Right Angle	10	5.027	3.984	6.498	10	

REMARKS: M-14 WAS TURNED BACK TO THE CITY OF DETROIT EFFECTIVE MARCH 3, 1989.

NO ACTION.

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

DISTRICT 9

CALCULATED AT 0.5 STD DEV

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82801	10.31	M-14	EVERGREEN AVE	DETROIT CITY	TOTAL ACCIDENTS	48
66 LOCATIONS	7	Lane-2 Way	Urban/Signal	Less than 10,000		
Right Angle	10	5.027	3.984	6.498	10	

REMARKS: M-14 WAS TURNED BACK TO THE CITY OF DETROIT EFFECTIVE MARCH 3, 1989.

NO ACTION.

82801	12.27	M-14	GREENFIELD ROAD	DETROIT CITY	TOTAL ACCIDENTS	106
66 LOCATIONS	4	Lane-2 Way	Urban/Signal	Less than 10,000		
Right Angle	19	8.152	8.803	12.88	10	
Left Turn	30	7.987	7.591	11.58	10	
Rear-End	43	10.291	11.591	16.74	20	

REMARKS: M-14 WAS TURNED BACK TO THE CITY OF DETROIT EFFECTIVE MARCH 3, 1989.

NO ACTION.

82801	12.81	M-14	HUBBELL ROAD	DETROIT CITY	TOTAL ACCIDENTS	60
66 LOCATIONS	4	Lane-2 Way	Urban/Signal	Less than 10,000		
Right Angle	26	8.152	8.803	12.88	10	

REMARKS: M-14 WAS TURNED BACK TO THE CITY OF DETROIT EFFECTIVE MARCH 3, 1989.

NO ACTION.

82801	13.27	M-14	SCHAEFEER HWY	DETROIT CITY	TOTAL ACCIDENTS	59
66 LOCATIONS	4	Lane-2 Way	Urban/Signal	Less than 10,000		
Left Turn	17	7.987	7.591	11.58	10	

REMARKS: M-14 WAS TURNED BACK TO THE CITY OF DETROIT EFFECTIVE MARCH 3, 1989.

NO ACTION.

82801	13.79	M-14	MEYERS	DETROIT CITY	TOTAL ACCIDENTS	31
66 LOCATIONS	4	Lane-2 Way	Urban/Signal	Less than 10,000		
Left Turn	12	7.987	7.591	11.58	10	

REMARKS: M-14 WAS TURNED BACK TO THE CITY OF DETROIT EFFECTIVE MARCH 3, 1989.

NO ACTION.

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

DISTRICT 9

CALCULATED AT 0.5 STD DEV

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82821	01.03	M-5	WASHBURN AVE	DETROIT CITY	TOTAL ACCIDENTS	11
189 LOCATIONS	7	Lane-2 Way	Urban/No Signal			
Right Angle	3		1.856	1.127	2.055	10

REMARKS: Speed 35 mph

3 Yrs (1985-87)

DIR.	TOT.	ANGL	YR.	TOT.	ANGL
EB	1	0	85	3	1
WB	4	0	86	6	2
SB	3	1	87	2	0
NB	1	1	88	0	0
Other	2	1			

(ACCIDENT DATA FOR 1987 AND 1988 WERE TAKEN FROM THE REVISED MILE POINT 0.95. ALSO, DUE TO THE NW-SE ALIGNMENT OF M-5, DATA CODED UNDER THE "OTHER" DIRECTION HAD TO BE RE-DISTRIBUTED TO THEIR PROPER DIRECTION.)

ANGLE ACCIDENTS ARE BELOW THE THRESHOLD FOR THE LAST FOUR YEARS.

NO ACTION.

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82821	01.11	M-5	WYOMING	DETROIT CITY	TOTAL ACCIDENTS	79
62 LOCATIONS	7	Lane-2 Way	Urban/Signal			
Right Angle	26		5.027	3.984	6.498	10
Rear-End	25		9.896	7.694	12.64	20

REMARKS: Speed 35 mph Signal No. 82121-13

3 Yrs. (1985-87)

DIR.	TOT.	ANGL	RE	YR.	TOT.	ANGL	RE
EB	23	10	6	85	36	10	10
WB	21	7	6	86	24	8	10
SB	25	6	12	87	19	8	5
NB	10	3	1	88	25	5	9

(ACCIDENT DATA FOR 1987 AND 1988 WERE TAKEN FROM THE REVISED MILE POINT 1.01. ALSO, DUE TO THE NW-SE ALIGNMENT OF M-5, DATA CODED UNDER THE "OTHER" DIRECTION HAD TO BE RE-DISTRIBUTED TO THEIR PROPER DIRECTION). M-5 IS AN "UNSIGNED" TRUNKLINE.

TOTAL, ANGLE, AND REAR-END ACCIDENTS HAVE A DOWNWARD TREND FOR THE LAST THREE YEARS. POLICE REPORTS INDICATE THAT 18 OF THE 26 ANGLE ACCIDENTS WERE A RESULT OF RUNNING THE RED LIGHT; NONE RELATED TO TURNING RIGHT ON RED.

AN ALL-RED INTERVAL FOLLOWING WYOMING HAS BEEN IN PLACE SINCE 1982. EXISTING YELLOW INTERVALS ARE ADEQUATE.

NO ACTION.

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

DISTRICT 9

CALCULATED AT 0.5 STD DEV

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82821	01.57	M-5	OAKMAN BLVD	DETROIT CITY	TOTAL ACCIDENTS	55
	62 LOCATIONS	7 Lane-2 Way	Urban/Signal			
Rear-End	29	9.896	7.694	12.64	20	

REMARKS: Speed 35 mph Signal No. 82121-15

3 Yrs. (1985-87)					
DIR.	TOT.	RE	YR.	TOT.	RE
EB	12	7	85	24	13
WB	24	11	86	15	6
SB	7	3	87	16	10
NB	12	8	88	20	8

(ACCIDENT DATA FOR 1987 AND 1988 WERE TAKEN FROM THE REVISED MILE POINT 1.47. ALSO, DUE TO THE NW-SE ALIGNMENT OF M-5, DATA CODED UNDER THE "OTHER" DIRECTION HAD TO BE RE-DISTRIBUTED TO THEIR PROPER DIRECTION). M-5 IS AN "UNSIGNED" TRUNKLINE. AN ALL-RED INTERVAL HAS BEEN IN PLACE SINCE 1985.

REAR-END ACCIDENTS HAVE A DOWNWARD TREND TOWARD INSIGNIFICANT NUMBERS.

NO ACTION.

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82821	01.74	M-5	CLOVERDALE	DETROIT CITY	TOTAL ACCIDENTS	17
	189 LOCATIONS	7 Lane-2 Way	Urban/No Signal			
Rear-End	7	3.053	1.947	3.474	20	

REMARKS: Speed 35 mph

3 Yrs. (1985-87)					
DIR.	TOT.	RE	YR.	TOT.	RE
EB	6	2	85	6	1
WB	9	5	86	5	2
SB	2	0	87	4	4
			88	7	3

(ACCIDENT DATA FOR 1987 AND 1988 WERE TAKEN FROM THE REVISED MILE POINT 1.63. ALSO, DUE TO THE NW-SE ALIGNMENT OF M-5, DATA CODED UNDER THE "OTHER" DIRECTION HAD TO BE RE-DISTRIBUTED TO THEIR PROPER DIRECTION). M-5 IS AN "UNSIGNED" TRUNKLINE.

REAR-END ACCIDENTS ARE BELOW THE THRESHOLD FOR THE LAST FOUR YEARS.

NO ACTION.

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

DISTRICT 9

CALCULATED AT 0.5 STD DEV

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82821	01.88	M-5	S JE11	DETROIT CITY	TOTAL ACCIDENTS	70
62 LOCATIONS 7 Lane-2 Way Urban/Signal						
Right Angle	21		5.027	3.984	6.498	10
Rear-End	29		9.896	7.694	12.64	20

REMARKS: Speed 35 mph

3 Yrs. (1985-87)							
DIR.	TOT.	ANGL	RE	YR.	TOT.	ANGL	RE
EB	10	0	7	85	12	5	5
WB	10	3	4	86	34	7	16
SB	12	3	5	87	24	9	8
NB	6	3	2	88	27	13	12
Other	33	12	12				

THIS LOCATION IS M-5 AT SOUTH JEFFERIES SERVICE DRIVE (RAMP 140A). M-5 IS AN "UNSIGNED" TRUNKLINE.

SAFETY PROGRAMS UNIT WILL REVIEW THIS INTERSECTION AS PART OF THE INTERCHANGE IMPROVEMENT PROGRAM (INTERCHANGE NO. 820). NOTE THAT THE ACCIDENT DATA FOR 1987 AND 1988 MUST BE REVISED USING A NEW MILE POINT 1.76, AND THE DATA CODED UNDER THE "OTHER" DIRECTION WILL HAVE TO BE RE-DISTRIBUTED.

NO ACTION.

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82821	01.98	M-5	N JE4	DETROIT CITY	TOTAL ACCIDENTS	49
62 LOCATIONS 7 Lane-2 Way Urban/Signal						
Right Angle	12		5.027	3.984	6.498	10
Rear-End	22		9.896	7.694	12.64	20

REMARKS: Speed 35 mph

3 Yrs. (1985-87)							
DIR.	TOT.	ANGL	RE	YR.	TOT.	ANGL	RE
EB	3	1	1	85	20	4	8
WB	13	2	7	86	28	8	14
SB	1	0	1	87	2	1	0
NB	3	1	1	88	4	0	2
Other	29	8	12				

THIS LOCATION IS M-5 AT NORTH JEFFERIES SERVICE DRIVE (RAMP 140B). M-5 IS AN "UNSIGNED" TRUNKLINE.

SAFETY PROGRAMS UNIT WILL REVIEW THIS INTERSECTION AS PART OF THE INTERCHANGE IMPROVEMENT PROGRAM (INTERCHANGE NO. 820). NOTE THAT THE ACCIDENT DATA FOR 1987 AND 1988 MUST BE REVISED USING A NEW MILE POINT 1.86, AND THE DATA CODED UNDER THE "OTHER" DIRECTION WILL HAVE TO BE RE-DISTRIBUTED.

NO ACTION.

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

DISTRICT 9

CALCULATED AT 0.5 STD DEV

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82821	02.15	M-5	S M05	DETROIT CITY		TOTAL ACCIDENTS 2
189 LOCATIONS		7 Lane-2 Way	Urban/No Signal			
Left Turn	0	1.136	0.667	1.235	10	

REMARKS: Speed 35 mph

3 Yrs. (1985-87)						
DIR.	TOT.	LT	YR.	TOT.	LT	
EB	0	0	85	0	0	
WB	1	0	86	1	0	
NB	1	0	87	0	0	
			88	1	0	

(ACCIDENT DATA FOR 1987 AND 1988 WERE TAKEN FROM THE REVISED MILE POINT 2.03. ALSO, DUE TO THE NW-SE ALIGNMENT OF M-5, DATA CODED UNDER THE "OTHER" DIRECTION HAD TO BE RE-DISTRIBUTED TO THEIR PROPER DIRECTION.)

NO LEFT-TURN ACCIDENTS WERE REPORTED.

NO ACTION.

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82821	02.29	M-5	LIVERNOIS	DETROIT CITY		TOTAL ACCIDENTS 123
62 LOCATIONS		7 Lane-2 Way	Urban/Signal			
Right Angle	23	5.027	3.984	6.498	10	
Left Turn	30	4.377	2.806	4.995	10	
Rear-End	55	9.896	7.694	12.64	20	

REMARKS: Speed 35 mph Signal No. 82121-16

3 Yrs. (1985-87)										
DIR.	TOT.	ANGL	LT	RE	YR.	TOT.	ANGL	LT	RE	
EB	17	6	4	3	85	42	9	11	12	
WB	18	4	3	8	86	39	4	7	24	
SB	37	6	6	24	87	42	10	11	19	
NB	46	5	16	18	88	32	7	5	18	
Other	6	2	1	2						

(ACCIDENT DATA FOR 1987 AND 1988 WERE TAKEN FROM THE REVISED MILE POINT 2.17. ALSO, DUE TO THE NW-SE ALIGNMENT OF M-5, DATA CODED UNDER THE "OTHER" DIRECTION HAD TO BE RE-DISTRIBUTED TO THEIR PROPER DIRECTION.)

RECOMMENDATION: FOR RECOMMENDATION, SEE INTERSECTION ACTION LOCATION NO. 20.

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

DISTRICT 9

CALCULATED AT 0.5 STD DEV

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82821	02.78	M-5	JOY ROAD	DETROIT CITY	TOTAL ACCIDENTS	76
62 LOCATIONS	7	Lane-2 Way	Urban/Signal			
Rear-End	29		9.896	7.694	12.64	20

REMARKS: Speed 35 mph

3 Yrs. (1985-87)						
DIR.	TOT.	RE	YR.	TOT.	RE	
EB	19	8	85	28	9	
WB	38	14	86	28	12	
SB	9	1	87	20	8	
NB	8	5	88	21	11	
Other	2	1				

(ACCIDENT DATA FOR 1987 AND 1988 WERE TAKEN FROM THE REVISED MILE POINT 2.65. ALSO, DUE TO THE NW-SE ALIGNMENT OF M-5, DATA CODED UNDER THE "OTHER" DIRECTION HAD TO BE RE-DISTRIBUTED TO THEIR PROPER DIRECTION). M-5 IS AN "UNSIGNED" TRUNKLINE.

NO CORRECTABLE ACCIDENT PATTERN WAS IDENTIFIED.

NO ACTION.

82821	03.85	M-5	HOLMUR AVE	DETROIT CITY	TOTAL ACCIDENTS	14
189 LOCATIONS	7	Lane-2 Way	Urban/No Signal			
Right Angle	5		1.856	1.127	2.055	10

REMARKS: Speed 35 mph

3 Yrs. (1985-87)						
DIR.	TOT.	ANGL	YR.	TOT.	ANGL	
EB	2	1	85	3	1	
WB	5	1	86	3	1	
SB	4	2	87	8	3	
NB	2	1	88	1	0	

(ACCIDENT DATA FOR 1987 AND 1988 WERE TAKEN FROM THE REVISED MILE POINT 3.71. ALSO, DUE TO THE NW-SE ALIGNMENT OF M-5, DATA CODED UNDER THE "OTHER" DIRECTION HAD TO BE RE-DISTRIBUTED TO THEIR PROPER DIRECTION). A NON-SIGNALIZED INTERSECTION.

INSIGNIFICANT NUMBER OF TOTAL AS WELL AS ANGLE ACCIDENTS FOR THE LAST FOUR YEARS.

NO ACTION.

1985-1987 INTERSECTION HIGH-ACCIDENT LISTING (Stats & Threshold & %)

DISTRICT 9

CALCULATED AT 0.5 STD DEV

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82821	04.01	M-5	W GR4		DETROIT CITY	TOTAL ACCIDENTS 62
62 LOCATIONS	7	Lane-2 Way	Urban/Signal			
Right Angle	27	5.027	3.984	6.498	10	

REMARKS: Speed 35 mph Signal No. 82121-22

3 Yrs. (1985-87)			YR.	TOT.	ANGL
DIR.	TOT.	ANGL			
EB	21	12	85	17	9
WB	25	6	86	26	9
SB	6	6	87	19	9
NB	8	3	88	16	7

THIS IS M-5 AT W. GRAND BLVD. INTERSECTION, AND M-5 IS "UNSIGNED." (ACCIDENT DATA FOR 1987 AND 1988 WERE TAKEN FROM THE REVISED MILE POINT 3.87. ALSO, DUE TO THE NW-SE ALIGNMENT OF M-5, DATA CODED UNDER THE "OTHER" DIRECTION HAD TO BE RE-DISTRIBUTED TO THEIR PROPER DIRECTION).

RECOMMENDATION: FOR RECOMMENDATION, SEE INTERSECTION ACTION LOCATION NO. 21.

ACC TYPE	# ACC	STD DEV	MEAN	UCL	THRESHOLD NUMBER	PERCENT OF TOTAL
82821	06.81	M-5	3RD ST		DETROIT CITY	TOTAL ACCIDENTS 7
62 LOCATIONS	7	Lane-2 Way	Urban/Signal			
Right Angle	3	5.027	3.984	6.498	10	

REMARKS: Speed 35 mph

3 Yrs. (1985-87)			YR.	TOT.	ANGL
DIR.	TOT.	ANGL			
EB	1	0	85	2	1
WB	1	1	86	5	2
SB	3	1	87	0	0
NB	0	0	88	3	1
Other	2	1			

(ACCIDENT DATA FOR 1987 AND 1988 WERE TAKEN FROM THE REVISED MILE POINT 6.71, AND DATA CODED UNDER THE "OTHER" DIRECTION HAD TO BE RE-DISTRIBUTED TO THEIR PROPER DIRECTION.)

INSIGNIFICANT NUMBER OF TOTAL AS WELL AS ANGLE ACCIDENTS FOR THE LAST FOUR YEARS.

NO ACTION.

MIDBLOCK "NO ACTION" LOCATIONS

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82023	02.50	03.00	I-94 Freeway Greater than 20,000 173 TOTAL ACCIDENTS
Wet	93	40	40% OF 173= 69 DETROIT

REMARKS: ADT=133,900 IN 1987
NO CONCENTRATION OF WET ACCIDENTS. CONSIDERING HIGH ADT NO ACTION IS NECESSARY.

82023	03.00	03.50	I-94 Freeway Greater than 20,000 196 TOTAL ACCIDENTS
Wet	81	40	40% OF 196= 78 DETROIT

REMARKS: ADT=144,500 IN 1987
NO CORRECTABLE ACCIDENT PATTERN IDENTIFIED/NO ACTION.

82024	00.00	00.50	I-94 Freeway Greater than 20,000 435 TOTAL ACCIDENTS
SS-Pass	12	8	DETROIT

REMARKS: ADT=140,700 IN 1987, NINE OF THE SIDESWIPES INVOLVED LANE CHANGES AND ALL 12 ACCIDENTS WERE PROPERTY DAMAGE EXCEPT ONE CAUSED BY A DRIVER WHO BECAME ILL AND CAUSED 3 INJURIES.
NO CORRECTABLE ACCIDENT PATTERN IDENTIFIED/NO ACTION.

82053	03.50	04.00	US-24 Non-Freeway Greater than 20,000 534 TOTAL ACCIDENTS
O-turn/F-Obj	34	25	
Ped/Bike	11	10	DETROIT/REDFORD TWP.

REMARKS: ADT=68,200 IN 1987
OBJECTS BEING STRUCK, POWER POLE-14, DITCH-8, SIGNS-5, FENCE-3, CURB-4
4 DRIVERS WERE D.U.I.L., 1 WAS ILL, 1 VEH. HAD DEF. EQUIP., 3 OCCURED ON ICY SURFACE.
THERE WERE 3 BIKE AND 8 PEDESTRIAN ACCIDENTS ALL OCCURING RANDOMLY.
NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82053	06.50	07.00	US-24 Non-Freeway Greater than 20,000 554 TOTAL ACCIDENTS
O-turn/F-Obj	30	25	
SS-Pass	8	8	DETROIT/REDFORD TWP.

REMARKS: ADT=87,800 IN 1987
OBJECTS BEING STRUCK-POWER POLES-9, SIGNS-9, TREES-6, MISC.-6, ALL OCCURED RANDOMLY.
SIDESWIPES ALL OCCURED RANDOMLY. NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL				
82053	07.00	07.50	US-24	Non-Freeway	Greater than 20,000	224	TOTAL ACCIDENTS
Wet	93	40	40% OF 224=	89	DETROIT/REDFORD TWP.		

REMARKS: ADT=83,600 IN 1987
 PAVEMENT FRICTION VALUES ARE GOOD.
 NO CORRECTABLE ACCIDENT PATTERN IDENTIFIED/NO ACTION.

82053	07.50	08.00	US-24	Non-Freeway	Greater than 20,000	543	TOTAL ACCIDENTS
O-turn/F-Obj	40	25					
SS-Pass	10	8	DETROIT				

REMARKS: ADT=72,500 IN 1987
 THE OBJECTS MAINLY BEING STRUCK;POWER POLES-24, SIGNS-11, MISC.-5. THE ONLY POLE HIT MORE THAN ONCE WAS HIT TWICE, HOWEVER ONE VEHICLE HAD DEFECTIVE EQUIPMENT AND THE DRIVER OF THE OTHER WAS FORCED INTO THE POLE BY ANOTHER VEHICLE.
 ALL SIDESWIPES OCCURED RANDOMLY.
 NO CORRECTABLE ACCIDENT PATTERN IDENTIFIED/NO ACTION.

82053	08.50	09.00	US-24	Non-Freeway	Greater than 20,000	500	TOTAL ACCIDENTS
O-turn/F-Obj	30	25					
Ped/Bike	13	10					
SS-Pass	12	8	DETROIT				

REMARKS: ADT=76,200 IN 1987
 ALL FIXED OBJECT ACCIDENTS OCCURED RANDOMLY-OBJECTS BEING STRUCK INCLUDED ; SIGNS-9,POWER POLES-12,TREES-5. ONE DRIVER WAS D.U.I.L., LOST CONTROL,STRUCK TREE AND WAS KILLED.
 THREE BIKE ACCIDENTS OCCURED AT GRAND RIVER & TELEGRAPH, HOWEVER A REVIEW OF ACCIDENT REPORTS REVEALED THAT TWO OF THESE WERE THE BICYCLIST'S FAULT.
 ALL SIDESWIPES OCCURED RANDOMLY.
 NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82024 02.50	03.00	I-94 Freeway	Greater than 20,000
309 TOTAL ACCIDENTS			
O-turn/F-Obj	29	25	DETROIT
SS-Pass	8	8	

REMARKS: ADT=114,800 IN 1987
 NO CONCENTRATION THESE ACCIDENTS. THEY OCCURED RANDOMLY THROUGHOUT THE .5 MILE SEGMENT.
 NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82062 06.00	06.50	US-12 Non-Freeway	Greater than 20,000
372 TOTAL ACCIDENTS			
Backing	24	20	DETROIT

REMARKS: ADT=VARIES FROM 32,600 TO 47,100 IN 1987.
 MOST OF THESE OCCURED RANDOMLY, HOWEVER 5 OCCURED AT MICH. AT WYOMING DUE TO DRIVER CARELESSNESS.
 NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82062 06.50	07.00	US-12 Non-Freeway	Greater than 20,000
447 TOTAL ACCIDENTS			
Parking	67	40	
Ped/Bike	10	10	DETROIT

REMARKS: ADT=32,600 IN 1987
 US-12(MICH.) ALONG THIS SEGMENT AND ALSO THE NEXT 4 SEGMENTS IS HEAVILY COMMERCIAL ON BOTH SIDES OF MICH. WITH PARALLEL PARKING ALLOWED IN FRONT OF THE MANY SMALL BUSINESSES. SINCE IT WOULD BE DIFFICULT TO REMOVE THE PARKING ALONG THIS 2.5 MILE LENGTH AND MOST OF THE ACCIDENTS ARE PROPERTY DAMAGE TYPE ACCIDENTS THERE IS NO ACTION THAT WOULD BE PRACTICABLE.
 THE PED/BIKE ACCIDENTS ALL OCCURED RANDOMLY WITH MOST CAUSED BY PED OR BIKE CARELESSNESS.
 NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82062 07.00	07.50	US-12 Non-Freeway	Greater than 20,000
306 TOTAL ACCIDENTS			
Parking	51	40	
Ped/Bike	19	10	DETROIT

REMARKS: ADT=32,600 IN 1987, SEE C.S. 82062,M.P.'S 6.5 TO 7.0 FOR COMMENTS ON PARKING.
 3 PED. ACCIDENTS OCCURED AT MICH. AT 51 ST., ONE A FATALITY.UNABLE TO DETERMINE ANY CAUSATIVE REASON FOR THESE. APPEARS TO BE CARELESSNESS ON EITHER DRIVER OR PEDESTRIAN.
 3 OCCURED AT MICH. AT CASPER. THE OTHER PED. ACCIDENTS OCCURED RANDOMLY.
 NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82062	07.50	08.00 US-12	Non-Freeway Greater than 20,000 351 TOTAL ACCIDENTS
Parking	52	40	
Ped/Bike	21	10	
Hd-On/SS-Mt	10	10	DETROIT

REMARKS: ADT=32,600 IN 1987
 SEE C.S. 82062, M.P.'S 6.5 TO 7.0 FOR COMMENTS ON PARKING.
 TWO PED. ACCIDENTS OCCURED AT MICH. AT CECIL. ONE WAS A FATALITY CAUSED BY PED. STEPPING OFF CURB INTO PATH OF VEH.
 THE OTHER PEDESTRIAN ACCIDENTS OCCURED RANDOMLY AS DID THE SIDESWIPE ACCIDENTS.
 NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82062	08.00	08.50 US-12	Non-Freeway 10,000 to 20,000 335 TOTAL ACCIDENTS
Parking	44	30	
Ped/Bike	33	8	
Hd-On/SS-Mt	10	8	
SS-Pass	12	6	DETROIT

REMARKS: ADT=22,300 IN 1987
 SEE C.S. 82062, M.P.'S 6.5 TO 7.0 FOR COMMENTS ON PARKING.
 5 PED. ACCIDENTS OCCURED AT MICH. AT CICOTTE, ONE A FATALITY. REVIEW OF ACCIDENT REPORTS INDICATED MAINLY CARELESSNESS BY PEDESTRIAN AS CAUSE.
 5 PED. ACCIDENTS OCCURED AT MICH. AT LIVERNOIS, ONE A FATALITY. ACCIDENT REPORTS DID NOT REVEAL ANY PATTERN. THE OTHER TYPES ALL OCCURED RANDOMLY. NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82062	08.50	09.00 US-12	Non-Freeway 10,000 to 20,000 273 TOTAL ACCIDENTS
Parking	31	30	
Ped/Bike	11	8	DETROIT

REMARKS: ADT=22,300 IN 1987
 SEE C.S. 82062, M.P.'S 6.5 TO 7.0 FOR COMMENTS ON PARKING.
 ONE PED. ACCIDENT WAS A FATALITY IN WHICH THE PED. STEPPED IN FRONT OF A VEHICLE. THE OTHER PED. ACCIDENTS ALL OCCURED RANDOMLY.
 NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82062 10.00	10.50	US-12	Non-Freeway 10,000 to 20,000
SS-Pass	6	6	DETROIT
146 TOTAL ACCIDENTS			

REMARKS: ADT=15,600 IN 1987
NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82062 11.50	11.91	US-12	Non-Freeway 10,000 to 20,000
Parking	30	30	
Ped/Bike	13	8	DETROIT
208 TOTAL ACCIDENTS			

REMARKS: ADT=15,600 IN 1987
SEE C.S. 82062, M.P.'S 6.5 TO 7.0 FOR COMMENTS ON PARKING.
4 PED. ACCIDENTS OCCURED AT MICH. AT CASS, ALL CAUSED BY DRIVER CARELESSNESS.
2 PED. ACCIDENTS OCCURED AT MICH. AT WOODWARD, CAUSED BY CARELESSNESS.
THE OTHER PEDESTRIAN ACCIDENTS ALL OCCURED RANDOMLY.
NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82071 04.00	04.50	M-3	Non-Freeway 10,000 to 20,000
Parking	36	30	
Ped/Bike	9	8	DETROIT
187 TOTAL ACCIDENTS			

REMARKS: ADT=15,300 IN 1987. PARKING ACCIDENTS OCCURED RANDOMLY.
2 PED. ACCIDENTS OCCURED AT FORT AT TRUMBULL, ONE A FATALITY IN WHICH A PEDESTRIAN ATTEMPTED TO CROSS AT MID-BLOCK.
NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82071 04.50	05.00	M-3	Non-Freeway 10,000 to 20,000
Parking	48	30	
Ped/Bike	8	8	DETROIT
279 TOTAL ACCIDENTS			

REMARKS: ADT=15,300 IN 1987. PARKING ACCIDENTS OCCURED MAINLY DUE TO PARALLEL PARKING BEING ALLOWED. 3 PED. ACCIDENTS OCCURED AT FORT AT CASS, ONE A FATALITY DUE TO DRIVER CARELESSNESS.
2 PED. ACCIDENTS OCCURED AT FORT AT WOODWARD DUE TO CARELESSNESS.
NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82072 00.00	00.50	M-3	Non-Freeway 10,000 to 20,000
Ped/Bike	8	8	238 TOTAL ACCIDENTS
SS-Pass	8	6	DETROIT

REMARKS: ADT=19,400 IN 1987

2 PED. ACCIDENTS OCCURED AT GRATIOT AT RANDOLPH, BOTH CAUSED BY DRIVER CARELESSNESS.
 THE SIDESWIPES ALL OCCURED RANDOMLY.
 NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82072 00.50	01.00	M-3	Non-Freeway 10,000 to 20,000
SS-Pass	7	6	DETROIT
			240 TOTAL ACCIDENTS

REMARKS: ADT=19,600 IN 1987

ALL SIDESWIPE ACCIDENTS WERE PROPERTY DAMAGE ACCIDENTS AND OCCURED RANDOMLY.
 '83-2, '84-3, '85-1, '86-1
 NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82072 01.50	02.00	M-3	Non-Freeway Greater than 20,000
Ped/Bike	16	10	359 TOTAL ACCIDENTS
SS-Pass	11	8	DETROIT

REMARKS: ADT=37,600 IN 1987

2 PED. ACCIDENTS OCCURED AT GRATIOT AT ARNDT AND 2 AT GRATIOT AT CHENE CAUSED BY CARELESSNESS.
 THE SIDESWIPES OCCURED RANDOMLY AND ALL WERE PROPERTY DAMAGE ACCIDENTS EXCEPT ONE.
 NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82072 02.00	02.50	M-3	Non-Freeway Greater than 20,000
SS-Pass	9	8	DETROIT
			249 TOTAL ACCIDENTS

REMARKS: ADT=37,600 IN 1987

SIDESWIPES OCCURED RANDOMLY AND ALL WERE PROPERTY DAMAGE ACCIDENTS EXCEPT ONE IN WHICH A DRIVER RECEIVED MINOR INJURIES.
 NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82072 Ped/Bike	02.50 03.00 17	M-3 10	Non-Freeway Greater than 20,000 247 TOTAL ACCIDENTS DETROIT

REMARKS: ADT=37,600 IN 1987
 '83-4, '84-2, '85-6, '86-2, '87-2
 ONE BIKE AND SIX PEDESTRIAN ACCIDENTS OCCURED AT GRATIOT AT MT. ELLIOT. A REVIEW OF ACCIDENT REPORTS DID NOT REVEAL ANY PARTICULAR PATTERN OTHER THAN CARELESSNESS.
 NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82072 Ped/Bike	03.00 03.50 11	M-3 10	Non-Freeway Greater than 20,000 347 TOTAL ACCIDENTS DETROIT
SS-Pass	9	8	

REMARKS: ADT=37,600 IN 1987
 THREE PEDESTRIAN ACCIDENTS OCCURED AT GRATIOT AT E. WARREN, ONE A FATALITY IN WHICH A PEDESTRIAN WAS WALKING IN THE TURN LANE AND STEPPED INTO THE PATH OF A VEHICLE. THE OTHERS OCCURED RANDOMLY. THE SIDESWIPES OCCURED RANDOMLY AND ALL WERE PROPERTY DAMAGE ACCIDENTS.
 NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82072 Ped/Bike	03.50 04.00 37	M-3 10	Non-Freeway Greater than 20,000 395 TOTAL ACCIDENTS DETROIT
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REMARKS: ADT=37,600 IN 1987
 YEARLY TOTAL OF PED. ACCIDENTS: '83-5, '84-4, '85-7, '86-10, '87-4.
 THERE WERE ALSO 7 BIKE ACCIDENTS OCCURING RANDOMLY CAUSED BY CARELESSNESS.
 9 PED. ACCIDENTS WERE CODED TO GRATIOT AT VAN DYKE, 2 AT GRATIOT AT PARKER, 3 AT GRATIOT AT BALDWIN WITH ONE OF THESE A FATAL OCCURING 60 FT. FROM THE INTERSECTION AND THERE WERE 2 CODED TO GRATIOT AT SEYBURN. MOST OF THE PED. ACCIDENTS OCCURED ANYWHERE UP TO A DISTANCE OF 300 FEET FROM THE INTERSECTION. THEY OCCURED MAINLY DUE TO CARELESSNESS WHEN THE PEDESTRIAN ATTEMPTED TO CROSS THE STREET OTHER THAN AT THE INTERSECTIONS WITH THEIR MARKED CROSSWALKS AND PEDESTRIAN SIGNALS.
 NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82072 04.00	04.50	M-3	Non-Freeway Greater than 20,000
Ped/Bike	18	10	DETROIT
			206 TOTAL ACCIDENTS

REMARKS: ADT=32,400 IN 1987, 13 PED. & 5 BIKE ACCIDENTS OCCURED RANDOMLY EXCEPT 2 THAT OCCURED AT GRATIOT AT FISCHER , ONE A FATAL IN WHICH A PED WAS RUNNING ACROSS THE STREET AND WAS STRUCK BY A NBD. GRATIOT VEHICLE. NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82072 04.50	05.00	M-3	Non-Freeway Greater than 20,000
Ped/Bike	24	10	
Hd-On/SS-Mt	12	10	DETROIT
			486 TOTAL ACCIDENTS

REMARKS: ADT=32,400 IN 1987, THE 16 PEDESTRIAN & 8 BIKE ACCIDENTS OCCURED RANDOMLY CAUSED BY CARELESSNESS. THE HEAD-ON & SIDESWIPE ACCIDENTS LIKewise OCCURED RANDOMLY. NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82072 05.00	05.50	M-3	Non-Freeway Greater than 20,000
Ped/Bike	17	10	DETROIT
			286 TOTAL ACCIDENTS

REMARKS: ADT=32,400 IN 1987, 5 PED. & 2 BIKE ACCIDENTS OCCURED AT OR UP TO 50 FT. FROM GRATIOT AT GEORGIA. A REVIEW OF THE ACCIDENT REPORTS INDICATED THESE WERE CAUSED BY CARELESSNESS WITH ONE OF THESE THE RESULT OF A MENTALLY RETARDED PERSON WALKING IN THE MIDDLE OF THE STREET. THE REST OF THE ACCIDENTS OCCURED RANDOMLY CAUSED BY CARELESSNESS. NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82072 05.50	06.00	M-3	Non-Freeway Greater than 20,000
O-turn/F-Obj	25	25	
Ped/Bike	16	10	
SS-Pass	27	8	DETROIT
			597 TOTAL ACCIDENTS

REMARKS: ADT=32,400 IN 1987, THE FIXED OBJECTS BEING STRUCK WERE MAINLY POWER POLES AND OCCURED RANDOMLY EXCEPT FOR A POLE AT GRATIOT & CONNER WHICH WAS STRUCK TWICE, ONCE DELIBERATELY. THE PED. & SIDESWIPES OCCURED RANDOMLY. NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82072	06.00	06.50	M-3 Non-Freeway Greater than 20,000
Ped/Bike	25	10	DETROIT
345 TOTAL ACCIDENTS			

REMARKS: ADT=28,800 IN 1987
 THERE WERE 5 BIKE & 19 PED. ACCIDENTS. 8 PED ACCIDENTS OCCURED AT GRATIOT AT FLANDERS/ST.PATRICK.MOST OCCURED UP TO 120 FT. AWAY FROM THE INTERSECTION. ONE OF THESE WAS A FATALITY IN WHICH A PEDESTRIAN INTERFERED WITH APPROACHING TRAFFIC. THE REST OCCURED RANDOMLY. NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82072	06.50	07.00	M-3 Non-Freeway Greater than 20,000
Parking	46	40	
Ped/Bike	25	10	DETROIT
252 TOTAL ACCIDENTS			

REMARKS: ADT=28,800 IN 1987. THE PARKING ACCIDENTS OCCURED RANDOMLY AND WERE MAINLY PROPERTY DAMAGE ACCIDENTS. 9 BIKE & 14 PED. ACCIDENTS OCCURED OF WHICH 4 OCCURED AT GRATIOT AT FINDLAY AND 2 AT GRATIOT AT WALTHAM. THESE WERE CAUSED BY CARELESSNESS. NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82072	07.00	07.50	M-3 Non-Freeway Greater than 20,000
Parking	52	40	
Ped/Bike	22	10	DETROIT
278 TOTAL ACCIDENTS			

REMARKS: ADT=28,800 IN 1987. THE PARKING ACCIDENTS WERE MAINLY PROPERTY DAMAGE TYPE'S AND OCCURED RANDOMLY. THERE WERE 9 BIKE & 12 PED. ACCIDENTS OCCURING RANDOMLY CAUSED BY CARELESSNESS. NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82072	07.50	08.00	M-3 Non-Freeway Greater than 20,000
Parking	55	40	
Ped/Bike	24	10	
SS-Pass	8	8	DETROIT
458 TOTAL ACCIDENTS			

REMARKS: ADT=28,800 IN 1987. THE PARKING ACCIDENTS OCCURED RANDOMLY DUE TO PARALLEL PARKING BEING ALLOWED.THERE WERE A TOTAL OF 8 BIKE & 16 PED. ACCIDENTS OF WHICH 3 BIKE & 12 PED. OCCURED WITHIN 150'OF GRATIOT AT 6 MILE.THIS INTERSECTION IS ON THE HIGH-ACC. LIST AND IS GOING TO BE REVIEWED BY ESU. NO CORRECTABLE ACCIDENT PATTERN REGARDING THE ABOVE/NO ACTION AT THIS TIME.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	ACC	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL			
82072	08.00	08.50	M-3	Non-Freeway	Greater than 20,000	447	TOTAL ACCIDENTS
Parking		69	40				
Ped/Bike		23	10	DETROIT			

REMARKS: ADT=29,300 IN 1987

THE PARKING ACCIDENTS OCCURED RANDOMLY OVER THE 5 YEAR STUDY PERIOD.

THERE WERE 4 BIKE AND 18 PED. ACCIDENTS OF WHICH 2 WERE FATALITIES. ONE OCCURED NEAR GRATIOT AT EASTWOOD WHEN THE PED. JUST WALKED INTO TRAFFIC FROM IN FRONT OF A PARKED CAR. THE OTHER OCCURED 150' FROM GRATIOT AT PINWOOD WHEN A PED. JUST WALKED IN FRONT OF A PASSING VEHICLE. THE OTHER PED. ACCIDENTS OCCURED RANDOMLY.

NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82111	00.00	00.50	US-10 (N/S)	Freeway	Greater than 20,000	100	TOTAL ACCIDENTS
Wet		45	40	40% OF	100= 40	DETROIT	

REMARKS: ADT=57,500 IN 1987. 45 WET ACCIDENTS OVER THIS .5 MILE SEGMENT IN THE 5 YEAR STUDY PERIOD IS NOT A CORRECTABLE ACCIDENT PROBLEM CONSIDERING THE ADT.

82111	00.50	01.00	US-10 (N/S)	Freeway	Greater than 20,000	113	TOTAL ACCIDENTS
Wet		64	40	40% OF	113= 45	DETROIT	

REMARKS: ADT=74,000 IN 1987

NO CORRECTABLE ACCIDENT PROBLEM/NO ACTION.

82111	02.50	02.90	US-10 (N/S)	Freeway	Greater than 20,000	211	TOTAL ACCIDENTS
SS-Pass		15	8	DETROIT			

REMARKS: ADT=49,600 IN 1987.

THE SIDESWIPES OCCURED RANDOMLY.

NO CORRECTABLE ACCIDENT PROBLEM/NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82111 02.90	03.40	I-375BS	Non-Freeway Greater than 20,000
Ped/Bike	20	10	927 TOTAL ACCIDENTS
SS-Pass	33	8	DETROIT

REMARKS: ADT=43,100 IN 1987. 3 BIKE AND 16 PED. ACCIDENTS OCCURED RANDOMLY ALONG THIS BUSINESS SPUR ON JEFFERSON AVE. BY THE RENAISSANCE CENTER. THE SIDESWIPES OCCURED RANDOMLY. NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82112 00.00	00.50	US-10 (N/S)	Freeway Greater than 20,000
Wet	43	40	40% OF 82 = 32 DETROIT

REMARKS: ADT=61,900 IN 1987. NO CORRECTABLE ACCIDENT PATTERN CONSIDERING THE HIGH ADT/NO ACTION.

82112 00.50	01.00	US-10 (N/S)	Freeway Greater than 20,000
Wet	72	40	40% OF 127= 50 DETROIT

REMARKS: ADT=68,900 IN 1987
NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82112 01.00	01.50	US-10 (N/S)	Freeway Greater than 20,000
Wet	57	40	40% OF 132= 52 DETROIT

REMARKS: ADT=68,900 IN 1987
NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82112 01.50	02.00	US-10 (N/S)	Freeway Greater than 20,000
Wet	70	40	40% OF 150= 60 DETROIT

REMARKS: ADT=72,900 IN 1987
NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82112 03.50	04.00	US-10 (N/S) Freeway	Greater than 20,000
Wet	121	40	40% OF 199= 79 DETROIT

REMARKS: ADT=93,200 IN 1987. FRICTION TESTS ARE ADEQUATE AS ARE THE PREVIOUS SEGMENTS ON THE LODGE WITH WET ACCIDENTS. THE START OF THIS SEGMENT NEAR THE WYOMING AVE. OVERPASS IS ON A CURVE , HOWEVER THE WET ACCIDENTS WERE EVENLY DISTRIBUTED ALONG THIS .5 MILE SEGMENT. THE RECENT RECONSTRUCTION OF THE LODGE FREEWAY SHOULD HELP REDUCE WET ACCIDENTS ALONG THIS SEGMENT AND THE OTHER SEGMENTS ON THE LODGE WITH WET ACCIDENTS.

82112 04.00	04.50	US-10 (N/S) Freeway	Greater than 20,000
Wet	72	40	40% OF 137= 54 DETROIT

REMARKS: ADT=95,000 IN 1987. THE RECENT RECONSTRUCTION OF THE LODGE SHOULD HELP REDUCE WET ACCIDENTS.

82112 05.50	06.00	US-10 (N/S) Freeway	Greater than 20,000
Wet	120	40	40% OF 249= 99 DETROIT

REMARKS: ADT=99,000 IN 1987. THE RECENT RECONSTRUCTION OF THE LODGE SHOULD HELP REDUCE WET ACCIDENTS.

82112 06.50	07.00	US-10 (N/S) Freeway	Greater than 20,000
Wet	74	40	40% OF 176= 70 DETROIT

REMARKS: ADT=112,000 IN 1987
THE RECENT RECONSTRUCTION OF THE LODGE SHOULD HELP REDUCE WET ACCIDENTS.

82112 07.00	07.50	US-10 (N/S) Freeway	Greater than 20,000
Wet	98	40	40% OF 184= 73 DETROIT
SS-Pass	9	8	

REMARKS: ADT=112,000 IN 1987
THE RECENT RECONSTRUCTION OF THE LODGE SHOULD HELP REDUCE WET ACCIDENTS.
THE SIDESWIPES OCCURED RANDOMLY.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82112	07.50	08.00	US-10 (N/S) Freeway
			Greater than 20,000
			172 TOTAL ACCIDENTS
Wet	84	40	40% OF 172= 68 DETROIT

REMARKS: ADT=112,000 IN 1987
THE RECENT REBUILDING OF THE LODGE SHOULD HELP REDUCE WET ACCIDENTS.

82112	09.00	09.50	US-10 (N/S) Freeway
			Greater than 20,000
			144 TOTAL ACCIDENTS
Wet	59	40	40% OF 144= 57 DETROIT

REMARKS: ADT=85,800 IN 1987
THE RECENT REBUILDING OF THE LODGE SHOULD HELP REDUCE WET ACCIDENTS.

82112	09.50	09.95	US-10 (N/S) Freeway
			Greater than 20,000
			403 TOTAL ACCIDENTS
SS-Pass	8	8	DETROIT

REMARKS: ADT=85,800 IN 1987
THE SIDESWIPES OCCURED RANDOMLY.
NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82121	01.50	02.00	M-5 Non-Freeway
			Greater than 20,000
			230 TOTAL ACCIDENTS
Ped/Bike	14	10	DETROIT/REDFORD TWP.

REMARKS: ADT=36,100 IN 1987. THERE WERE 7 PED. & 7 BIKE ACCIDENTS. ALL OF THESE OCCURED RANDOMLY AND ONE OF THE PED. ACCIDENTS WAS A FATALITY IN WHICH AN 87 YEAR OLD WALKED INTO THE PATH OF A VEHICLE WHILE ATTEMPTING TO CROSS GRAND RIVER OTHER THAN AT THE INTERSECTION.
NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82121	03.50	04.00	M-5 Non-Freeway
			Greater than 20,000
			358 TOTAL ACCIDENTS
Parking	44	40	
SS-Pass	8	8	DETROIT

REMARKS: ADT=30,100 IN 1987. THE PARKING AND SIDESWIPE ACCIDENTS OCCURED RANDOMLY ALONG THIS .5 MILE SEGMENT.
NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82121 04.00	04.50	M-5	Non-Freeway Greater than 20,000
Ped/Bike	10	10	DETROIT
253 TOTAL ACCIDENTS			

REMARKS: ADT=29,600 IN 1987. 1 BIKE AND 9 PED. ACCIDENTS OCCURED OF WHICH 4 PED. ACCIDENTS OCCURED AT OR NEAR GRAND RIVER & 6 MILE.
NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82121 05.00	05.50	M-5	Non-Freeway Greater than 20,000
Ped/Bike	10	10	DETROIT
163 TOTAL ACCIDENTS			

REMARKS: ADT=29,600 IN 1987. 4 PED. & 6 BIKE ACCIDENTS OCCURED OF WHICH 3 BIKE ACCIDENTS OCCURED AT/NEAR GRAND RIVER AT WARICK. A REVIEW OF THE ACCIDENT REPORTS DID NOT REVEAL ANY PATTERN OTHER THAN CARELESSNESS ON THE PART OF THE BIKER.
NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82121 05.50	06.00	M-5	Non-Freeway Greater than 20,000
Ped/Bike	11	10	DETROIT
326 TOTAL ACCIDENTS			

REMARKS: ADT=29,600 IN 1987
8 PED. & 3 BIKE ACCIDENTS OCCURED WITH 2 PED. ACCIDENTS OCCURING AT GRAND RIVER AT FENKELL AND 2 AT GRAND RIVER AT GLASTONBURY. ONE OF THESE WAS A FATALITY IN WHICH A PEDESTRIAN BEING CHASED BY WITNESSES FOR LARCENY FROM A BUILDING SLIPPED AND FELL ON THE PAVEMENT AND WAS STRUCK BY A VEHICLE.
NO CORRECTABLE ACCIDENT PROBLEM/NO ACTION.

82121 06.00	06.50	M-5	Non-Freeway Greater than 20,000
Ped/Bike	10	10	
SS-Pass	9	8	DETROIT
280 TOTAL ACCIDENTS			

REMARKS: ADT=25,300 IN 1987
5 BIKE & 6 PED. ACCIDENTS OCCURED OF WHICH 3 PED. ACCIDENTS OCCURED AT/NEAR GRAND RIVER AT SOUTHFIELD SERVICE DR.
THE SIDESWIPES OCCURED RANDOMLY.
NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82121 06.50 07.00 M-5 Non-Freeway Greater than 20,000	230	TOTAL ACCIDENTS	
Ped/Bike	18	10	DETROIT

REMARKS: ADT=25,300 IN 1987. 7 BIKE & 11 PED. ACCIDENTS OCCURED OF WHICH 1 BIKE & 2 PED. ACCIDENTS OCCURED AT GRAND RIVER AT /NEAR WINTHROP DUE TO CARELESSNESS AS REVEALED ON THE ACCIDENT REPORTS. NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82121 07.00 07.50 M-5 Non-Freeway Greater than 20,000	418	TOTAL ACCIDENTS	
Parking	46	40	
Ped/Bike	25	10	DETROIT

REMARKS: ADT=25,300 IN 1987. THE PARKING ACCIDENTS OCCURED RANDOMLY. THERE WERE 9 BIKE & 15 PED. ACCIDENTS. THERE WERE 2 FATAL PED. ACCIDENTS OF WHICH ONE WAS CAUSED BY CARELESSNESS BY THE PED. AND THE OTHER BY CARELESSNESS BY BOTH THE PED. & THE DRIVER OF THE VEHICLE. NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82121 07.50 08.00 M-5 Non-Freeway Greater than 20,000	225	TOTAL ACCIDENTS	
Ped/Bike	14	10	DETROIT

REMARKS: ADT=25,300 IN 1987. 4 BIKE & 10 PED. ACCIDENTS OCCURED RANDOMLY. NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82122 09.00 09.50 I-96 Freeway Greater than 20,000	109	TOTAL ACCIDENTS	
SS-Pass	8	8	DETROIT

REMARKS: ADT=160,400 IN 1987. NO CORRECTABLE ACCIDENT PATTERN. NOTE THE HIGH ADT.

82123 01.00 01.50 I-96 Freeway Greater than 20,000	171	TOTAL ACCIDENTS	
SS-Pass	8	8	DETROIT

REMARKS: ADT=144,000 IN 1987
NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82123	03.50	04.00	I-96 Freeway
Dark	60	40	50% OF
			Greater than 20,000
			121= 60 DETROIT
			121 TOTAL ACCIDENTS

REMARKS: ADT=144,000 IN 1987
NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82131	00.50	01.00	M-1 WOODWARD Non-Freeway
Ped/Bike	11	10	Greater than 20,000
SS-Pass	10	8	DETROIT
			295 TOTAL ACCIDENTS

REMARKS: 1 BIKE & 10 PED. ACCIDENTS OCCURED OF WHICH 2 OCCURED AT WOODWARD AT STATE FAIR. ONE OF THESE WAS A FATALITY IN WHICH THE PED. RAN INTO THE ROADWAY INTERFERING WITH TRAFFIC. THE SIDESWIPE OCCURED RANDOMLY. NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82131	01.00	01.50	M-1 WOODWARD Non-Freeway
Parking	42	40	Greater than 20,000
Ped/Bike	22	10	
SS-Pass	9	8	DETROIT
			502 TOTAL ACCIDENTS

REMARKS: ADT=38,600 IN 1987. 6 BIKE & 16 PED. ACCIDENTS OCCURED OF WHICH 7 PED. & 2 BIKE ACCIDENTS OCCURED AT/NEAR WOODWARD AT 7 MILE DUE TO CARELESSNESS OR NOT USING THE PLAINLY MARKED CROSSWALKS WITH PED. SIGNALS. THE PARKING & SIDESWIPE ACCIDENTS OCCURED RANDOMLY. NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82131	01.50	02.00	M-1 WOODWARD Non-Freeway
Parking	47	40	Greater than 20,000
Ped/Bike	16	10	
SS-Pass	9	8	DETROIT
			334 TOTAL ACCIDENTS

REMARKS: ADT=36,200 IN 1987. 8 BIKE & 8 PED. ACCIDENTS OCCURED. THERE WAS ONE PED. FATALITY NEAR WOODWARD & SAVANNAH IN WHICH A PED. RAN INTO THE ROADWAY FROM BETWEEN PARKED CARS AND WAS STRUCK BY A VEHICLE. THE PARKING AND SIDESWIPE ACCIDENTS OCCURED RANDOMLY. NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82131 02.00	02.50	M-1 WOODWARD Non-Freeway	Greater than 20,000
Parking	60	40	564 TOTAL ACCIDENTS
Ped/Bike	22	10	
SS-Pass	9	8	DETROIT/HIGHLAND PARK

REMARKS: ADT=31,900 IN 1987. 3 BIKE & 19 PED. ACCIDENTS OCCURED OF WHICH ONE WAS A FATALITY IN WHICH THE PED. WALKED INTO THE PATH OF A VEHICLE. EIGHT OTHER PED. ACCIDENTS WERE CODED TO WOODWARD & 6 MILE EVEN THOUGH THEY OCCURED SOME DISTANCE AWAY. THESE WERE DUE TO CARELESSNESS EITHER BY THE DRIVER OR PEDESTRIAN.
THE PARKING AND SIDESWIPE ACCIDENTS OCCURED RANDOMLY. NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82131 02.50	03.00	M-1 WOODWARD Non-Freeway	Greater than 20,000
Parking	41	40	303 TOTAL ACCIDENTS
Ped/Bike	16	10	DETROIT/HIGHLAND PARK

REMARKS: ADT=31,900 IN 1987. 5 BIKE & 11 PED. ACCIDENTS OCCURED. 4 OF THESE OCCURED NEAR WOODWARD & FERRIS DUE TO CARELESSNESS AS INDICATED ON THE ACCIDENT REPORTS. THE REST OCCURED RANDOMLY.
THE PARKING ACCIDENTS OCCURED RANDOMLY. NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82131 03.00	03.50	M-1 WOODWARD Non-Freeway	Greater than 20,000
O-turn/F-Obj	25	25	700 TOTAL ACCIDENTS
Parking	87	40	
Ped/Bike	41	10	
Hd-On/SS-Mt	10	10	DETROIT/HIGHLAND PARK

REMARKS: ADT=34,100 IN 1987. THE FIXED OBJECTS BEING STRUCK WERE; POWER POLES-9, BLDG.-8, MISC.-8. NO OBJECT WAS STRUCK MORE THAN ONCE, THEY OCCURED RANDOMLY DUE TO CARELESSNESS.
THE PARKING ACCIDENTS OCCURED RANDOMLY THRU THIS .5 MILE SEGMENT OF WOODWARD AVE. WITH PARALLEL PARKING ALLOWED IN FRONT OF THE MANY BUSINESSES ALONG WOODWARD.
26 PED. & 14 BIKE ACCIDENTS OCCURED RANDOMLY. THE CROSSWALKS ARE PLAINLY MARKED BUT THE ACCIDENT REPORTS INDICATED MANY OF THE PED. ACCIDENTS OCCURED DUE TO CARELESSNESS WHEN PEDESTRIANS ATTEMPTED TO CROSS OTHER THAN AT THE MARKED CROSSWALKS.
NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82131 03.50	04.00	M-1 WOODWARD Non-Freeway	Greater than 20,000 435 TOTAL ACCIDENTS
Parking	65	40	
Ped/Bike	30	10	DETROIT/HIGHLAND PARK

REMARKS: ADT=34,100 IN 1987

THE PARKING ACCIDENTS OCCURED RANDOMLY AND WERE MAINLY PROPERTY DAMAGE TYPE ACCIDENTS. 9 BIKE & 21 PED. ACCIDENTS OCCURED RANDOMLY. SEVERAL OF THESE WERE HIT & RUN ACCIDENTS. THERE WAS ONE FATAL ACCIDENT IN WHICH A PEDESTRIAN WAS ATTEMPTING TO CROSS AT MIDBLOCK AND NOT AT THE MARKED CROSSWALK.

NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82131 04.00	04.50	M-1 WOODWARD Non-Freeway	Greater than 20,000 369 TOTAL ACCIDENTS
Parking	49	40	
Ped/Bike	37	10	DETROIT

REMARKS: ADT=25,300 IN 1987

THE PARKING ACCIDENTS OCCURED RANDOMLY AND WERE MAINLY PROPERTY DAMAGE ACCIDENTS. 11 BIKE & 26 PED. ACCIDENTS OCCURED WITH THE YEARLY TOTAL AS FOLLOWS: 83-7 PED.; 84-7 PED.&4 BIKE; 85-6 PED.&4 BIKE;86-3 PED.&2 BIKE;87-3 PED.& 1 BIKE: IN ADDITION THERE OCCURED IN 88-4 PED. & 89 TO 5-31-89-2 PED.

A REVIEW OF THE ACCIDENT REPORTS REVEALED THAT MANY OF THESE OCCURED BECAUSE THE PEDESTRIANS ATTEMPTED TO CROSS AT MID-BLOCK LOCATIONS AND WERE CARELESS, UNDER THE INFLUENCE, OR THE DRIVERS WERE ALSO CARELESS OR D.U.I.L.

NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82131 04.50	05.00	M-1 WOODWARD Non-Freeway	Greater than 20,000 247 TOTAL ACCIDENTS
Ped/Bike	14	10	DETROIT

REMARKS: ADT=26,900 IN 1987

3 BIKE & 11 PED. ACCIDENTS OCCURED RANDOMLY.

NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82131 05.00 Ped/Bike	05.50 25	M-1 WOODWARD Non-Freeway 10 DETROIT	Greater than 20,000 271 TOTAL ACCIDENTS

REMARKS: ADT=26,900 IN 1987

5 BIKE & 21 PED. ACCIDENTS OCCURED BROKEN DOWN BY YEAR AS FOLLOWS:

1983- 7 PED.; 1984- 4 PED. & 2 BIKE; 1985- 4 PED.; 1986- 3 PED. & 1 BIKE; 1987- 3 PED. & 2 BIKE;
IN ADDITION THERE OCCURED DURING: 1988-1 PED. & 1 BIKE; 1989 TO 5-31, 1 PED.

THERE WAS ONE FATALITY WHEN AN 83 YEAR OLD ATTEMPTED TO CROSS WOODWARD 100' FROM THE INTERSECTION AND WAS STRUCK WHILE IN THE LEFT TURN LANE.

NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82131 05.50 Parking	06.00 46	M-1 WOODWARD Non-Freeway 40	Greater than 20,000 405 TOTAL ACCIDENTS
Ped/Bike	30	10	
SS-Pass	8	8 DETROIT	

REMARKS: ADT=26,900 IN 1987

THE PARKING ACCIDENTS OCCURED RANDOMLY.

7 BIKE & 23 PED. ACCIDENTS OCCURED. A REVIEW OF THE ACCIDENT REPORTS DID NOT REVEAL ANY PATTERN THAT WAS CORRECTABLE OTHER THAN CARELESSNESS.

THE SIDESWIPES OCCURED RANDOMLY.

NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

82131 06.00 Ped/Bike	06.50 10	M-1 WOODWARD Non-Freeway 10 DETROIT	Greater than 20,000 240 TOTAL ACCIDENTS
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REMARKS: ADT=26,000 IN 1987

4 BIKE & 6 PED ACCIDENTS OCCURED RANDOMLY.

NO CORRECTABLE ACCIDENT PATTERN/NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82131 06.50	07.00	M-1 WOODWARD Non-Freeway	Greater than 20,000
Parking	46	40	
Ped/Bike	17	10	DETROIT
374 TOTAL ACCIDENTS			

REMARKS: ADT 26,000

M-1 FROM PALMER AVE. TO HANCOCK; 6 INTERSECTIONS.

PARKING ACCIDENTS BY YEAR: '83-10, '84-9, '85-9, '86-9, '87-9.

PED/BIKE ACCIDENTS BY YEAR: '83-5, '84-1, '85-3, '86-2, '87-6.

MOST PARKING OR PARKED-VEHICLE ACCIDENTS (33 OUT OF 46) OCCURRED NEAR THE KIRBY (MP 6.67) AND WARREN AVE. (MP 6.91) INTERSECTIONS DUE TO DRIVER ERROR. WARREN AVE. APPEARS ON THE INTERSECTION REVIEW LIST. NO CORRECTABLE PARKING PATTERN WAS FOUND.

TWELVE PEDESTRIAN ACCIDENTS WERE REPORTED AT OR NEAR THE WARREN AVE. INTERSECTION. PEDESTRIAN SIGNALS ARE IN PLACE.

NO ACTION.

82131 07.00	07.50	M-1 WOODWARD Non-Freeway	Greater than 20,000
Ped/Bike	20	10	DETROIT
324 TOTAL ACCIDENTS			

REMARKS: ADT 26,000

M-1 FROM HANCOCK ST. TO SELDEN AVE.; 6 INTERSECTIONS.

PED/BIKE ACCIDENTS BY YEAR: '83-5, '84-4, '85-3, '86-2, '87-6.

RECOMMENDATION: SEE ACTION LOCATION NO. 22.

82131 07.50	08.00	M-1 WOODWARD Non-Freeway	Greater than 20,000
Ped/Bike	14	10	DETROIT
227 TOTAL ACCIDENTS			

REMARKS: ADT 26,000

M-1 FROM SELDEN AVE. TO ALFRED ST.; 10 INTERSECTIONS.

PED/BIKE ACCIDENTS BY YEAR: '83-4, '84-4, '85-4, '86-2, '87-0.

YEARLY DISTRIBUTION SHOWS A DOWNWARD TREND OF PEDESTRIAN/BIKE ACCIDENTS FOR THE LAST TWO YEARS. THESE ACCIDENTS WERE NOT CONCENTRATED AT ANY PARTICULAR LOCATION. ALSO, TRAFFIC SIGNALS IN THIS SEGMENT HAVE PEDESTRIAN SIGNALS.

NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82131 Ped/Bike	08.00 08.50 20	M-1 WOODWARD Non-Freeway 10 DETROIT	Greater than 20,000 295 TOTAL ACCIDENTS

REMARKS: ADT 26,000
M-1 FROM ALFRED ST. TO MONROE; 12 INTERSECTIONS.
PED/BIKE ACCIDENTS BY YEAR: '83-3, '84-7, '85-1, '86-6, '87-3.

EIGHT PEDESTRIAN ACCIDENTS WERE REPORTED BETWEEN SPROAT (MP 8.04) AND SIBLEY (MP 8.09). ALL TRAFFIC SIGNALS HAVE PEDESTRIAN SIGNALS, TOO. NO CORRECTABLE ACCIDENT TYPE WAS FOUND.

NO ACTION.

82141 Ped/Bike	04.00 04.50 10	M-102 Non-Freeway 10 DETROIT	Greater than 20,000 294 TOTAL ACCIDENTS
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REMARKS: ADT 73,200
M-102 FROM TAPERT ST. TO GRANDVILLE RD.; 11 INTERSECTIONS.
PED/BIKE ACCIDENTS BY YEAR: '83-1, '84-5, '85-2, '86-2, '87-0

ACCIDENTS HAVE DECREASED SINCE 1985. HALF OF THE PED/BIKE ACCIDENTS WERE REPORTED AT THE INTERSECTION OF EVERGREEN (MP 4.17). IN 1984, FOUR OUT OF THE 5 ACCIDENTS OCCURRED AT THIS INTERSECTION ONLY, WHICH HAS PEDESTRIAN SIGNALS. NO CORRECTABLE PATTERN WAS FOUND.

NO ACTION.

82141 O-turn/F-Obj SS-Pass	05.00 05.50 29 19	M-102 Non-Freeway 25 8 DETROIT	Greater than 20,000 487 TOTAL ACCIDENTS
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REMARKS: ADT 105,700
M-102 FROM HOLLYWOOD ST. TO GILCHRIST; M-39 INTERCHANGE AREA.
O-TURN/F-OBJ ACCIDENTS BY YEAR: '83-5, '84-4, '85-5, '86-10, '87-5.
SS-PASS ACCIDENTS BY YEAR: '83-1, '84-8, '85-5, '86-5, '87-0

TWENTY FIXED-OBJECT ACCIDENTS WERE REPORTED IN THE M-39 INFLUENCE AREA BETWEEN MP 5.14 - 5.33, AND INVOLVED POWER POLES, CURB, AND DITCH. SIDESWIPE ACCIDENTS WERE A RESULT OF CHANGING LANES IN THIS INTERCHANGE AREA. THE AREA IS VERY CONGESTED, AND FIELD REVIEW DID NOT REVEAL ANY CORRECTABLE SITUATION.

NO ACTION.

82142 SS-Pass	00.50 01.00 8	M-102 Non-Freeway 8 DETROIT	Greater than 20,000 285 TOTAL ACCIDENTS
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REMARKS: ADT 121,000
M-102 FROM CAROL TO STANSBURY; 14 INTERSECTIONS.
SS-PASS ACCIDENTS BY YEAR: '83-1, '84-2, '85-4, '86-1, '87-0.

ALL SIDESWIPE-PASS ACCIDENTS WERE REPORTED ALONG THE EASTBOUND M-102. THREE OF THEM OCCURRED AT THE HUBBELL AVE. APPROACH; THE REST WERE SPREAD OUT. NO CORRECTABLE PATTERN WAS FOUND.
NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82142 01.00 01.50 M-102 Non-Freeway Greater than 20,000	464	TOTAL ACCIDENTS	
O-turn/F-Obj	25	25	
Ped/Bike	13	10	DETROIT

REMARKS: ADT 123,000

M-102 FROM LESURE TO SORRENTO; 8 INTERSECTIONS.

O-TURN/F-OBJ ACCIDENTS BY YEAR: '83-6, '84-4, '85-5, '86-8, '87-2.

PED/BIKE ACCIDENTS BY YEAR: '83-3, '84-3, '85-3, '86-2, '87-2.

ABOUT HALF OF THE FIXED-OBJECT ACCIDENTS WERE REPORTED WITHIN 200 FT. WEST TO 300 FT. EAST OF THE SCHAEFFER AVE. INTERSECTION. THIS INTERSECTION APPEARS ON THE INTERSECTION REVIEW LIST (MP 1.16). OBJECTS HIT WERE 5 POLES, 4 CURBS, 2 TREES, 2 BUILDINGS, AND 2 SIGNS. MOST OF THESE ACCIDENTS OCCURRED DURING RAIN OR SNOW. SEVEN PEDESTRIAN/BIKE ACCIDENTS WERE REPORTED IN THE SCHAEFFER AVE. AREA. MOST OF THE PED/BIKE ACCIDENTS OCCURRED DURING LATE NIGHT OR RAIN OR SNOW. PEDESTRIAN SIGNALS ARE IN PLACE AT THIS INTERSECTION. FIELD REVIEW REVEALED NO PROBLEMS WITH THE ABOVE ITEMS.

NO ACTION.

82142 02.00 02.50 M-102 Non-Freeway Greater than 20,000	319	TOTAL ACCIDENTS	
Ped/Bike	20	10	DETROIT

REMARKS: ADT 124,200

M-102 FROM WOODSIDE TO NORTHLAWN; 21 INTERSECTIONS.

PED/BIKE ACCIDENTS BY YEAR: '83-6, '84-2, '85-3, '86-7, '87-2.

ONE-THIRD OF THE 20 PED/BIKE ACCIDENTS WERE REPORTED AT THE WYOMING INTERSECTION ONLY, MOSTLY DURING NIGHTTIME. A SAMPLE OF POLICE REPORTS REVEALED SUCH ACTIONS AS "PEDESTRIAN RUNNING AGAINST DON'T WALK," "PEDESTRIAN NOT IN THE SIDEWALK," AND "HIT AND RUN." WYOMING (MP 2.15) IS ON THE INTERSECTION REVIEW LIST, AND HAS PEDESTRIAN SIGNALS.

ELSEWHERE, 2 PED. ACCIDENTS OCCURRED AT PARKSIDE (PED. RUNNING - FATAL; PED STANDING IN THE FAST LANE), 3 ACCIDENTS AT WESTVIEW (ALL AT NIGHT; 1 ALCOHOL, 1 WALKING IN THE ROAD - FATAL), AND 2 ACCIDENTS AT REIMANVILLE (1 HITCHHIKING, 1 BIKE AT FAULT). NO CORRECTABLE PATTERN.

NO ACTION.

82142 03.00 03.50 M-102 Non-Freeway Greater than 20,000	390	TOTAL ACCIDENTS	
SS-Pass	10	8	DETROIT

REMARKS: ADT 80,500

M-102 FROM SANTA ROSA TO RENFREW RD.; 17 INTERSECTIONS.

SS-PASS ACCIDENTS BY YEAR: '83-0, '84-2, '85-7, '86-0, '87-1.

HALF OF THE SIDESWIPE-PASS ACCIDENTS WERE REPORTED AT OR NEAR THE LIVERNOIS INTERSECTION (MP 3.14), WHICH ALSO APPEARS ON THE INTERSECTION REVIEW LIST. THEY OCCURRED EITHER DURING NIGHT AND/OR WET CONDITIONS. POLICE REPORTS INDICATED CHANGING LANES AS THE MOST STATED CAUSE. THE YEARLY DISTRIBUTION SHOWS ABRUPT INCREASE IN 1985, AND THEN BACK TO LOW NUMBERS.

NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82143 01.00	01.50	M-102	Non-Freeway Greater than 20,000
SS-Pass	11	8	DETROIT
556 TOTAL ACCIDENTS			

REMARKS: ADT 128,900

M-102 FROM EXETER TO THE CHRYSLER RAMP 50 C; I-75 INTERCHANGE AREA.

SS-PASS ACCIDENTS BY YEAR: '83-2, '84-4, '85-3, '86-2, '87-0.

ABOUT HALF OF THE SIDESWIPE-PASS ACCIDENTS OCCURRED AT OR NEAR THE JOHN R. INTERSECTION (MP 1.13), WHICH ALSO APPEARS ON THE INTERSECTION REVIEW LIST. TYPICAL ACCIDENTS OCCURRED DURING WET AND/OR NIGHT CONDITIONS. ACCIDENTS HAVE BEEN DECREASING FOR THE LAST THREE YEARS. A FEW YEARS AGO, I-75 ADVANCE WARNING SIGNS WERE INSTALLED ON M-102.

NO ACTION.

82143 01.50	02.00	M-102	Non-Freeway Greater than 20,000
O-turn/F-Obj	64	25	
SS-Pass	18	8	DETROIT
578 TOTAL ACCIDENTS			

REMARKS: ADT 80,500

M-102 FROM THE CHRYSLER RAMP 50 C TO MERRILL ST; I-75 INTERCHANGE AREA.

O-TURN/F-OBJ ACCIDENTS BY YEAR: '83-14, '84-12, '85-9, '86-15, '87-14.

SS-PASS ACCIDENTS BY YEAR: '83-1, '84-4, '85-10, '86-2, '87-1.

RECOMMENDATION: SEE ACTION LOCATION NO. 23.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82143 02.00	02.50	M-102	Non-Freeway Greater than 20,000
O-turn/F-Obj	29	25	591 TOTAL ACCIDENTS
Ped/Bike	13	10	
SS-Pass	12	8	DETROIT

REMARKS: ADT 76,000

M-102 FROM ORLEANS TO MACKAY; 8 INTERSECTIONS.

O-TURN/F-OBJ ACCIDENTS BY YEAR: '83-4, '84-5, '85-7, '86-4, '87-9.

PED/BIKE ACCIDENTS BY YEAR: '83-4, '84-4, '85-3, '86-1, '87-1.

SS-PASS ACCIDENTS BY YEAR: '83-3, '84-6, '85-3, '86-0, '87-0.

TEN FIXED-OBJECT ACCIDENTS WERE REPORTED AT OR NEAR DEQUINDRE AVE. (MP 2.12-2.15); ALL 10 ACCIDENTS OCCURRED DURING DARK HOURS, SEVEN OF WHICH IN WET/ICY CONDITIONS. OBJECTS HIT WERE 6 POLES, 2 SIGNS, 2 CURBS. (DEQUINDRE AVE. IS ON THE INTERSECTION REVIEW LIST.) ANOTHER 7 FIXED-OBJECT ACCIDENTS OCCURRED AT OR NEAR GODDARD AVE (MP 2.39-2.44); 3 OF THEM DURING WET CONDITIONS. OBJECTS HIT WERE 3 POLES, 2 BUILDINGS, 1 CURB. NO TREATMENT RECOMMENDED.

SIX PED/BIKE ACCIDENTS OCCURRED AT DEQUINDRE AVE. (MP 2.12-2.15). POLICE REPORTS REVEALED 2 ACCIDENTS INVOLVED PEDESTRIANS CROSSING AGAINST RED SIGNAL, 1 RUNNING, 1 HIT-RUN. DEQUINDRE AVE. HAS PEDESTRIAN SIGNALS. ANOTHER 3 PED/BIKE OCCURRED NEAR GODDARD AVE (MP 2.39-2.44). POLICE REPORTS INDICATED 1 BIKE GOING AGAINST THE TRAFFIC, 1 BIKE DUE TO A PARKED VEHICLE, 1 PEDESTRIAN RUNNING. NO CORRECTABLE PED/BIKE ACCIDENT PATTERN WAS FOUND.

NO SIDESWIPE-PASS ACCIDENTS WERE REPORTED FOR THE LAST TWO YEARS. EARLIER, SIX SS-PASS OCCURRED AT OR NEAR DEQUINDRE AVE (MP 2.12-2.16); OF THEM 3 INVOLVED CHANGING LANES, AND 2 HIT-RUN, MOSTLY UNDER ADVERSE WEATHER CONDITIONS. NO CORRECTABLE PATTERN.

NO ACTION.

82143 02.50	03.00	M-102	Non-Freeway Greater than 20,000
Ped/Bike	12	10	DETROIT

REMARKS: ADT 76,000

M-102 FROM ANGLIN TO YONKA; 16 INTERSECTIONS.

PED/BIKE ACCIDENTS BY YEAR: '83-2, '84-2, '85-4, '86-3, '87-1.

OF THE 12 PED/BIKE ACCIDENTS, 5 WERE REPORTED BETWEEN NORWOOD (MP 2.92) AND YONKA (MP 2.97). ONE OF THEM WAS FATAL. ALL THE ACCIDENTS OCCURRED DURING NIGHTTIME. STREET LIGHTING IS ADEQUATE.

NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82143 04.00 SS-Pass	04.50 10	M-102 8	Non-Freeway Greater than 20,000 DETROIT
497 TOTAL ACCIDENTS			

REMARKS: ADT 76,000
M-102 FROM SYRACUSE TO THE RAILROAD TRACKS; 6 INTERSECTIONS.
SS-PASS ACCIDENTS BY YEAR: '83-2, '84-2, '85-5, '86-1, '87-0.

SIDESWIPE-PASS ACCIDENTS DECREASED DURING THE LAST TWO YEARS. OF THE 10 ACCIDENTS, 5 WERE REPORTED IN THE MOUND RD. (MP 4.12) AREA. MOUND RD. IS ON THE INTERSECTION REVIEW LIST. ANOTHER 3 WERE REPORTED IN THE MT. ELLIOTT (MP 4.36) AREA. FIVE ACCIDENTS INVOLVED DRIVERS CHANGING LANES; FOUR INVOLVED PASSING. NO CORRECTABLE PATTERN WAS FOUND.

NO ACTION.

82143 05.00 Ped/Bike	05.50 19	M-102 10	Non-Freeway Greater than 20,000 DETROIT
495 TOTAL ACCIDENTS			

REMARKS: ADT 55,500
M-102 FROM SPENCER TO MACARTHUR; 8 INTERSECTIONS.
PED/BIKE ACCIDENTS BY YEAR: '83-3, '84-2, '85-8, '86-4, '87-1.

OVER THREE-FOURTHS OF THE 19 PED/BIKE ACCIDENTS WERE REPORTED AT THE M-53 INTERSECTION (MP 5.13), WHICH ALSO APPEARS ON THE INTERSECTION REVIEW LIST. THREE OF THE ACCIDENTS WERE FATAL. A REVIEW OF THE POLICE REPORTS INDICATED THAT TWO OF THE FATALITIES WERE DUE TO PED/BIKE AT FAULT, AND THE THIRD ONE WAS DUE TO A TRUCK TURNING RIGHT AND GOING OVER THE SIDEWALK. MOST CASES WERE DUE TO PED/BIKE AT FAULT FOR WHICH NO CORRECTABLE PATTERN WAS FOUND. PEDESTRIAN SIGNALS ARE IN PLACE AT THE M-53 INTERSECTION.

NO ACTION.

82143 06.50 Ped/Bike	07.00 16	M-102 10	Non-Freeway Greater than 20,000 DETROIT
189 TOTAL ACCIDENTS			

REMARKS: ADT 60,800
M-102 FROM HAMBERG TO HICKORY; 9 INTERSECTIONS.
PED/BIKE ACCIDENTS BY YEAR: '83-3, '84-2, '85-4, '86-6, '87-2.

SIX PED/BIKE ACCIDENTS WERE REPORTED AT OR NEAR THE HAMBERG INTERSECTION (MP 6.50), OF WHICH TWO WERE FATAL. ANOTHER FIVE OCCURRED BETWEEN BARLOW (MP 6.56) AND WALTHAM AVE. (MP 6.62). A REVIEW OF SEVERAL POLICE REPORTS INDICATED PEDESTRIANS/BICYCLISTS AT FAULT. IN ALL, ABOUT HALF THE ACCIDENTS OCCURRED DURING NIGHTTIME. STREET LIGHTING IS ADEQUATE.

NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82143 07.00	07.50	M-102	Non-Freeway Greater than 20,000
Ped/Bike	10	10	DETROIT
SS-Pass	12	8	
351 TOTAL ACCIDENTS			

REMARKS: ADT 60,800
M-102 FROM PELKEY ST. TO MONTROSE AVE.; 9 INTERSECTIONS.
PED/BIKE ACCIDENTS BY YEAR: '83-3, '84-2, '85-2, '86-3, '87-0.
SS-PASS ACCIDENTS BY YEAR: '83-0, '84-2, '85-7, '86-3, '87-0

RECOMMENDATION: SEE ACTION LOCATION NO. 24.

82151 00.00	00.50	M-53	Non-Freeway 10,000 to 20,000
Hd-On/SS-Mt	9	8	DETROIT
124 TOTAL ACCIDENTS			

REMARKS: ADT 16,600
M-53 FROM M-3 TO CONGER; 10 INTERSECTIONS.
HD-ON/SS-MT ACCIDENTS BY YEAR: '83-3, '84-1, '85-1, '86-3, '87-1.

M-53 IS A NON-DIVIDED HIGHWAY. THREE HEAD-ON/SS-MEET ACCIDENTS OCCURRED NEAR FERRY ST. (MP 0.12) IN THREE DIFFERENT YEARS. NO PATTERN WAS FOUND.

NO ACTION.

82151 00.50	01.00	M-53	Non-Freeway Greater than 20,000
Ped/Bike	23	10	DETROIT
396 TOTAL ACCIDENTS			

REMARKS: ADT 27,200
M-53 FROM CONGER TO HARDYKE; 6 INTERSECTIONS AND I-94 INTERCHANGE AREA.
PED/BIKE ACCIDENTS BY YEAR: '83-5, '84-3, '85-6, '86-6, '87-3.

IN ALL, 10 OF THE 23 PED/BIKE ACCIDENTS OCCURRED DURING WET/ICY CONDITIONS. ELEVEN ACCIDENTS WERE REPORTED IN THE I-94 INTERCHANGE INFLUENCE AREA (MP 0.59 TO 0.75). ANOTHER 9 OCCURRED IN THE HARPER AVE. AREA (MP 0.86). HARPER AVE. APPEARS ON THE INTERSECTION REVIEW LIST, AND HAS PEDESTRIAN SIGNALS. (SEE ACTION LOCATION NO. 14.) A REVIEW OF SEVERAL POLICE REPORTS INDICATED PEDESTRIANS USING BAD JUDGMENT IN CROSSING THE ROADS IN THIS COMMERCIAL AREA.

NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82151 Ped/Bike	01.00 01.50 18	M-53 10 DETROIT	Non-Freeway Greater than 20,000 204 TOTAL ACCIDENTS

REMARKS: ADT 27,200
M-53 FROM HARDYKE TO EDGEWOOD; 15 INTERSECTIONS.
PED/BIKE ACCIDENTS BY YEAR: '83-8, '84-1, '85-3, '86-0, '87-6.

THREE-FOURTHS OF THE PED/BIKE ACCIDENTS OCCURRED BETWEEN MILLER TO PRESSLER (MP 1.01 TO 1.12), HALF OF WHICH DURING NIGHTTIME. MILLER AVE. HAS PEDESTRIAN SIGNALS. A SAMPLE OF THE POLICE REPORTS INDICATE PED/BIKE ACTIONS SUCH AS "CROSSING BETWEEN THE CARS," "BIKE RIDING AGAINST THE TRAFFIC," "PEDESTRIAN RUNNING IN THE STREET," ETC. ELSEWHERE, ACCIDENTS AT WALDEN (MP 1.18) AND AT ROLAND (MP 1.45), INVOLVED PEDESTRIANS UNDER THE INFLUENCE OF ALCOHOL.

NO ACTION.

82151 Ped/Bike	01.50 02.00 13	M-53 10 DETROIT	Non-Freeway Greater than 20,000 260 TOTAL ACCIDENTS
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REMARKS: ADT 27,200
M-53 FROM EDGEWOOD TO MOLENA AVE.; 15 INTERSECTIONS
PED/BIKE ACCIDENTS BY YEAR: '83-5, '84-1, '85-2, '86-0, '87-5.

FIVE PEDESTRIAN ACCIDENTS OCCURRED NEAR GRINNELL (MP 1.62-1.66), AND FOUR NEAR LYNCH RD. (MP 1.86-1.91). BOTH THE INTERSECTIONS HAVE PEDESTRIAN SIGNALS. NO CORRECTABLE PATTERN WAS FOUND.

NO ACTION.

82151 Ped/Bike Hd-On/SS-Mt	02.50 03.00 13 15	M-53 10 10 DETROIT	Non-Freeway Greater than 20,000 369 TOTAL ACCIDENTS
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REMARKS: ADT 27,200
M-53 FROM FOREST LAWN TO ABOUT 500 FEET NORTH OF SIX MILE RD; 8 INTERSECTIONS.
PED/BIKE ACCIDENTS BY YEAR: '83-1, '84-1, '85-2, '86-4, '87-5.
HD-ON/SS-MT ACCIDENTS BY YEAR: '83-4, '84-2, '85-2, '86-3, '87-4.

OF THE 13 PED/BIKE ACCIDENTS, NINE OCCURRED AT THE SIX MILE RD INTERSECTION (MP 2.91). IN SEVERAL CASES, POLICE REPORTS REVEALED PEDESTRIANS WERE DISREGARDING THE SIGNALS. PEDESTRIAN SIGNALS ARE PRESENT. (SIX MILE RD. INTERSECTION IS ALSO ON THE INTERSECTION REVIEW LIST. THE EAST LEG OF THIS INTERSECTION HAS BEEN CLOSED IN 1988 DUE TO THE DETROIT CITY AIRPORT EXPANSION.)

NINE OUT OF THE FIFTEEN HEAD-ON/SS-MEET ACCIDENTS OCCURRED AT THE SIX MILE RD INTERSECTION (MP 2.91). A SAMPLE OF POLICE REPORTS REVEALED CIRCUMSTANCES SUCH AS "AVOID ANIMAL," "IMPROPER LEFT TURN," "FELL ASLEEP," AND SO ON. NO ACTION IS NEEDED.

NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82151 Train	03.00 5	03.50 M-53 4 DETROIT	Non-Freeway Greater than 20,000 168 TOTAL ACCIDENTS

REMARKS: ADT 27,700

M-53 FROM ABOUT 500 FEET NORTH OF SIX MILE RD. TO EMILY.

AT THE INTERSECTION OF M-53/DAVISON ST., GTW RAILROAD TRACKS CROSS BOTH THE ROADWAYS DIAGONALLY. FOUR OF THE FIVE ACCIDENTS (1 FATAL) OCCURRED AT THE DAVISON CROSSING. POLICE REPORTS INDICATE THE MOTORISTS FAILED TO STOP AT THE CROSSING.

IN FEBRUARY 1989, LOCAL SERVICES DIVISION PROGRAMMED RAILROAD SAFETY FUNDS FOR THE INSTALLATION OF OVERHEAD SIGNALS AND GATES.

NO ACTION.

82151 Parking	03.50 70	04.00 M-53 40	Non-Freeway Greater than 20,000 438 TOTAL ACCIDENTS
Ped/Bike	13	10	
Hd-On/SS-Mt	11	10 DETROIT	

REMARKS: ADT 27,700

M-53 FROM EMILY TO HOUSE AVE.; 9 INTERSECTIONS.

PARKING ACCIDENTS BY YEAR: '83-10, '84-9, '85-24, '86-14, '87-13.

PED/BIKE ACCIDENTS BY YEAR: '83-4, '84-7, '85-10, '86-4, '87-11.

HD-ON/SS-MT ACCIDENTS BY YEAR: '83-1, '84-1, '85-3, '86-5, '87-3.

ALL THE PARKING ACCIDENTS INVOLVED PARKED-VEHICLES. NINE OCCURRED AT STOCKTON (MP 3.52-3.53), 7 AT QUINN (MP 3.69-3.72), 14 AT SEVEN MILE RD (MP 3.90-3.92). MOST OF THESE PARKING ACCIDENTS OCCURRED DURING ADVERSE WEATHER, WET/ICY, NIGHTTIME CONDITIONS. REVIEW OF SOME POLICE REPORTS REVEALED "LOST CONTROL," "HIT AND RUN," "RECKLESS" CIRCUMSTANCES. NO ACTION.

SIXTEEN OF THE 36 PED/BIKE ACCIDENTS WERE REPORTED AT SEVEN MILE RD (MP 3.92-3.93), MOSTLY UNDER WET, ICY, NIGHTTIME CONDITIONS. A SAMPLE OF POLICE REPORTS INDICATED PEDESTRIANS "CROSSING AGAINST RED SIGNAL," "INTERFERING WITH TRAFFIC." SEVEN MILE RD IS ON THE INTERSECTION REVIEW LIST, AND HAS PEDESTRIAN SIGNALS. SEE ACTION LOCATION NO. 15.

SIX OUT OF THE 11 HEAD-ON/SS-MEET ACCIDENTS OCCURRED AT OR NEAR SEVEN MILE RD (MP 3.92-3.93); MOSTLY UNDER WET, ICY, NIGHTTIME CONDITIONS. SEVEN MILE RD IS ON THE INTERSECTION REVIEW LIST. AVERAGE PAVEMENT FRICTION NUMBER AS MEASURED IN 1984 WAS ABOUT 34 FOR THE NORTHBOUND, 33 FOR THE SOUTHBOUND.

NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82171 00.00 00.50 M-97 Non-Freeway 10,000 to 20,000	8	8	99 TOTAL ACCIDENTS
Ped/Bike		DETROIT	

REMARKS: ADT 10,200
M-97 FROM M-3 TO CHRISTY AVE.; 10 INTERSECTIONS.
PED/BIKE ACCIDENTS BY YEAR: '83-1, '84-2, '85-0, '86-2, '87-3.

THREE PEDESTRIAN ACCIDENTS OCCURRED NEAR FLANDERS INTERSECTION (MP 0.20); OTHERS WERE SPREAD OUT. NO PATTERN WAS FOUND.

NO ACTION.

82171 00.50 01.00 M-97 Non-Freeway 10,000 to 20,000	10	8	207 TOTAL ACCIDENTS
Hd-On/SS-Mt		DETROIT	

REMARKS: ADT 10,200
M-97 FROM CHRISTY AVE. TO ABOUT 500 FEET NORTH OF SIX MILE RD.; 7 INTERSECTIONS.
HD-ON/SS-MT ACCIDENTS BY YEAR: '83-3, '84-3, '85-3, '86-1, '87-0.

YEARLY DISTRIBUTION SHOWS A DECREASING TREND SINCE 1985. OF THE TEN HEAD-ON/SS-MT ACCIDENTS, SIX OCCURRED AT OR NEAR SIX MILE RD. (MP 0.90 - 0.92); ALL UNDER WET/ICY CONDITIONS. OF THOSE SIX, THREE WERE ON THE CROSSROADS. SIX MILE RD IS ON THE INTERSECTION REVIEW LIST (SEE ACTION LOCATION NO. 16). M-97 WAS RESURFACED IN 1989.

NO ACTION.

82171 01.50 02.00 M-97 Non-Freeway 10,000 to 20,000	10	8	214 TOTAL ACCIDENTS
Ped/Bike		DETROIT	

REMARKS: ADT 12,800
M-97 FROM PARK GROVE TO ABOUT 500 FEET NORTH OF SEVEN MILE RD.; 4 INTERSECTIONS.
PED/BIKE ACCIDENTS BY YEAR: '83-0, '84-2, '85-2, '86-2, '87-5.

IN ALL, HALF OF THE PEDESTRIAN ACCIDENTS OCCURRED UNDER RAIN/WET/NIGHT CONDITIONS. SIX PEDESTRIAN ACCIDENTS OCCURRED AT OR NEAR 7 MILE RD (MP 1.91) ONLY, MOSTLY DURING WET/NIGHT CONDITIONS. SEVEN MILE RD. APPEARS ON THE INTERSECTION REVIEW LIST, AND HAS PEDESTRIAN SIGNALS (SEE ACTION LOCATION NO. 17). NO CORRECTABLE PATTERN WAS FOUND.

NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82171 02.50 O-turn/F-Obj	02.96 21	M-97 20	Non-Freeway 10,000 to 20,000 DETROIT
			66 TOTAL ACCIDENTS

REMARKS: ADT 14,900
M-97 FROM FAIRMOUNT TO EIGHT MILE RD.; 5 INTERSECTIONS.
O-TURN/F-OBJ ACCIDENTS BY YEAR: '83-4, '84-5, '85-3, '86-5, '87-4.

EIGHTY FIVE PERCENT OF THESE 21 FIXED-OBJECT ACCIDENTS OCCURRED BETWEEN BRINGARD TO HOOKER RD (MP 2.63 - 2.70), EIGHT OF WHICH DURING NIGHT HOURS. OBJECTS HIT WERE 7 POLES, 3 SIGNALS. M-97 IS ON A CURVE, AND THE AREA IS PARTLY COMMERCIAL, PARTLY RESIDENTIAL. M-97 WAS RESURFACED IN 1989.

NO ACTION.

82192 07.19 Wet	07.69 98	M-39 40	Freeway 40% OF	Greater than 20,000 197= 78	197 TOTAL ACCIDENTS DETROIT/DEARBORN
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REMARKS: ADT 151,000
M-39 FROM THE M-153 RAMP 5D TO ABOUT 400 FEET NORTH OF PAUL AVE.
WET ACCIDENTS BY YEAR: '83-8, '84-28, '85-30, '86-28, '87-4, ('88-7).

THIS SECTION OF M-39 WAS RESURFACED IN 1986, AND THE WET ACCIDENTS HAVE DECREASED TO INSIGNIFICANT NUMBERS SINCE THEN.

NO ACTION.

82192 08.19 Wet	08.69 117	M-39 40	Freeway 40% OF	Greater than 20,000 227= 90	227 TOTAL ACCIDENTS DETROIT
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REMARKS: ADT 129,600
M-39 FROM ABOUT 400 FEET NORTH OF WARREN AVE. TO THE JOY RD. RAMP.
WET ACCIDENTS BY YEAR: '83-18, '84-41, '85-35, '86-19, '87-4, ('88-8).

THIS SECTION OF M-39 WAS RESURFACED IN 1986, AND THE WET ACCIDENTS HAVE DECREASED TO INSIGNIFICANT NUMBERS SINCE THEN.

NO ACTION.

82192 09.19 Wet	09.69 145	M-39 40	Freeway 40% OF	Greater than 20,000 266= 106	266 TOTAL ACCIDENTS DETROIT
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REMARKS: ADT 151,000
M-39 FROM ABOUT 450 FEET NORTH OF JOY ROAD TO ABOUT 400 FEET NORTH OF CHICAGO BLVD.
WET ACCIDENTS BY YEAR: '83-22, '84-57, '85-43, '86-19, '87-4, ('88-9).

THIS SECTION OF M-39 WAS RESURFACED IN 1986, AND THE WET ACCIDENTS HAVE DECREASED TO INSIGNIFICANT NUMBERS SINCE THEN.

NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82193 00.50	01.00	M-39	Freeway Greater than 20,000
Wet	169	40	40% OF 265= 106 DETROIT
265 TOTAL ACCIDENTS			

REMARKS: ADT 130,600

M-39 FROM LYNDON TO M-5; M-39/M-5/5 MILE RD. INTERCHANGE AREA.

WET ACCIDENTS BY YEAR: '83-24, '84-23, '85-44, '86-42, '87-36, ('88-27).

A PART OF THIS SECTION OF M-39, FROM LYNDON (MP 0.50) TO TOURNIER AVE. (MP 0.78), WAS RESURFACED IN 1986 (PROJECT M82192 - 24541A). SINCE THEN, WET ACCIDENTS HAVE A DOWNWARD TREND.

NO ACTION.

82193 01.00	01.50	M-39	Freeway Greater than 20,000
Wet	162	40	40% OF 195= 78 DETROIT
SS-Pass	10	8	
195 TOTAL ACCIDENTS			

REMARKS: ADT 139,000

M-39 FROM M-5 TO PURITAN AVE.

WET ACCIDENTS BY YEAR: '83-10, '84-29, '85-33, '86-39, '87-51.

SS-PASS ACCIDENTS BY YEAR: '83-1, '84-2, '85-5, '86-1, '87-1

RECOMMENDATION: SEE ACTION LOCATION NO. 25.

82193 01.50	02.00	M-39	Freeway Greater than 20,000
Wet	162	40	40% OF 244= 97 DETROIT
244 TOTAL ACCIDENTS			

REMARKS: ADT 139,000

M-39 FROM PURITAN AVE. TO 6 MILE ROAD.

WET ACCIDENTS BY YEAR: '83-19, '84-25, '85-36, '86-25, '87-57.

RECOMMENDATION: SEE ACTION LOCATION NO. 25.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL	TOTAL ACCIDENTS			
82193	02.00	02.50	M-39	Freeway	Greater than 20,000	216	TOTAL ACCIDENTS
Wet	160	40		40% OF	216= 86	DETROIT	

REMARKS: ADT 150,400
M-39 FROM 6 MILE ROAD TO CURTIS.
WET ACCIDENTS BY YEAR: '83-18, '84-25, '85-35, '86-33, '87-49.

RECOMMENDATION: SEE ACTION LOCATION NO. 25.

82193	02.50	03.00	M-39	Freeway	Greater than 20,000	205	TOTAL ACCIDENTS
Wet	131	40		40% OF	205= 82	DETROIT	

REMARKS: ADT 150,400
M-39 FROM CURTIS TO 7 MILE ROAD.
WET ACCIDENTS BY YEAR: '83-16, '84-34, '85-27, '86-20, '87-34.

RECOMMENDATION: SEE ACTION LOCATION NO. 25.

82193	03.00	03.50	M-39	Freeway	Greater than 20,000	317	TOTAL ACCIDENTS
Wet	214	40		40% OF	317= 126	DETROIT	

REMARKS: ADT 119,900
M-39 FROM 7 MILE ROAD TO PEMBROOK.
WET ACCIDENTS BY YEAR: '83-38, '84-48, '85-47, '86-38, '87-43.

RECOMMENDATION: SEE ACTION LOCATION NO. 25

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82193	03.50	03.97	M-39 Freeway Greater than 20,000
Wet	328	40	40% OF 485= 194
SS-Pass	20	8	DETROIT
485 TOTAL ACCIDENTS			

REMARKS: ADT 119,900

M-39 FROM PEMBROOK TO 8 MILE ROAD.

WET ACCIDENTS BY YEAR: '83-66, '84-86, '85-70, '86-50, '87-56, ('88-64).

SS-PASS ACCIDENTS BY YEAR: '83-2, '84-8, '85-6, '86-2, '87-2.

DISTRIBUTION OF THE WET ACCIDENTS BY DIRECTION: NB 78%, SB 22%. WET ACCIDENTS CONTINUED TO OCCUR INSPITE OF RECENT COUNTERMEASURES ON NB M-39. IN 1986, NB M-39 PAVEMENT WAS TEXTURIZED TO IMPROVE THE PAVEMENT FRICTION AND, THUS, TO REDUCE WET ACCIDENTS. ALSO, A CHANGEABLE MESSAGE SIGN "PREPARE TO STOP" WAS INSTALLED TO ALERT NB M-39 MOTORISTS OF THE BACKUPS FROM THE OFF-RAMP AT 8 MILE ROAD. PAVEMENT FRICTION TESTS CONDUCTED IN 1988 SHOW HIGH FRICTION NUMBERS (IN 40S) FOR THE NORTHBOUND LANES; HOWEVER, THE SOUTHBOUND CENTER AND OUTSIDE LANES SHOWED 32.

WITH THE COMPLETION OF I-696 IN LATE 1989, IT IS EXPECTED TO REDUCE TRAFFIC VOLUMES ON M-39, AND, IN TURN, TO REDUCE THE ACCIDENTS. SAFETY PROGRAMS WILL CONTINUE TO MONITOR WET ACCIDENTS ON M-39, AND IF THE SITUATION DOES NOT IMPROVE, AN ALTERNATIVE OF CONSTRUCTING A 2-LANE OFF-RAMP AT THE 8 MILE RD EXIT WILL BE CONSIDERED AS RECOMMENDED IN A GEOMETRICS - ROUTE LOCATION MEMORANDUM DATED MARCH 1986.

NO ACTION.

82194	02.50	03.00	I-75 Freeway Greater than 20,000
SS-Pass	10	8	DETROIT
215 TOTAL ACCIDENTS			

REMARKS: ADT 92,600

I-75 (DETROIT TOLEDO FWY) FROM ABOUT 250 FEET SOUTH OF THE M-85/I-75 RAMP 29C TO HALF A MILE NORTHERLY.

SS-PASS ACCIDENTS BY YEAR: '83-0, '84-3, '85-2, '86-4, '87-1.

FOUR SIDESWIPE-PASS ACCIDENTS OCCURRED ON SOUTHBOUND I-75 FREEWAY NEAR SCHAEFFER EXIT (MP 2.57). POLICE REPORTS CITED REASONS SUCH AS "UNSAFE LANE CHANGING," "CONSTRUCTION ZONE." NO CORRECTABLE PATTERN WAS FOUND FOR THIS HIGH SPEED, FREEWAY INTERCHANGE AREA.

NO ACTION.

82195	01.00	01.50	I-75 Freeway Greater than 20,000
SS-Pass	12	8	DETROIT
181 TOTAL ACCIDENTS			

REMARKS: ADT 78,600

I-75 CONNECTOR FROM SECOND ST. TO JOHN R.

SS-PASS ACCIDENTS BY YEAR: '83-1, '84-5, '85-4, '86-0, '87-2.

SIX SIDESWIPE-PASS ACCIDENTS OCCURRED ON NORTHBOUND I-75 FREEWAY NEAR WOODWARD, JOHN R RAMP (MP 1.36 - 1.39); FOUR OF WHICH INVOLVED TRUCKS, HIT-AND-RUN TYPE ACCIDENTS. NO CORRECTABLE PATTERN WAS FOUND FOR THIS HIGH SPEED, FREEWAY INTERCHANGE AREA.

NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL	TOTAL ACCIDENTS
82252 SS-Pass	00.00 12	00.50 8	I-75 Freeway DETROIT	Greater than 20,000 261

REMARKS: ADT 113,100
I-75 (CHRYSLER FWY.) FROM PIQUETTE TO CLAY AVE.
SS-PASS ACCIDENTS BY YEAR: '83-2, '84-5, '85-2, '86-2, '87-1.

FOUR SIDESWIPE-PASS ACCIDENTS WERE REPORTED ON SOUTHBOUND I-75 FREEWAY (MP 0.26 -0.32). NO CORRECTABLE PATTERN WAS FOUND FOR THIS HIGH SPEED FREEWAY.

NO ACTION.

82252 Icy	03.00 117	03.50 40	I-75 Freeway 30% OF	Greater than 20,000 131= 39	131 TOTAL ACCIDENTS DETROIT
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REMARKS: ADT 117,900
I-75 (CHRYSLER FWY) FROM DAVISON FWY TO THE 6 MILE RD. RAMP; INTERCHANGE AREA.
ICY ACCIDENTS BY YEAR: '83-22, '84-9, '85-44, '86-25, '87-17, ('88-29).

RECOMMENDATION: SEE ACTION LOCATION NO. 26.

82252 Icy	03.50 106	04.00 40	I-75 Freeway 30% OF	Greater than 20,000 155= 46	155 TOTAL ACCIDENTS DETROIT
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REMARKS: ADT 117,900
I-75 (CHRYSLER FWY) FROM THE 6 MILE RD. RAMP 48A TO THE RAMP 48B; INTERCHANGE AREA.
ICY ACCIDENTS BY YEAR: '83-8, '84-15, '85-39, '86-21, '87-23, ('88-20).

RECOMMENDATION: SEE ACTION LOCATION NO. 26.

82801 Parking Ped/Bike	10.00 28 12	10.50 20 6	M-14 Non-Freeway DETROIT	Less than 10,000	212 TOTAL ACCIDENTS
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REMARKS: M-14 WAS TURNED BACK TO THE CITY OF DETROIT EFFECTIVE MARCH 3, 1989.

NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82801	11.00	11.50	M-14 Non-Freeway Less than 10,000
208 TOTAL ACCIDENTS			
Ped/Bike	10	6	
SS-Pass	4	4	DETROIT

REMARKS: M-14 WAS TURNED BACK TO THE CITY OF DETROIT EFFECTIVE MARCH 3, 1989.

NO ACTION.

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82801	11.50	12.00	M-14 Non-Freeway Less than 10,000
172 TOTAL ACCIDENTS			
Parking	34	20	
Ped/Bike	17	6	
Hd-On/SS-Mt	6	6	DETROIT

REMARKS: M-14 WAS TURNED BACK TO THE CITY OF DETROIT EFFECTIVE MARCH 3, 1989.

NO ACTION.

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82801	12.00	12.50	M-14 Non-Freeway Less than 10,000
299 TOTAL ACCIDENTS			
Parking	22	20	
Ped/Bike	18	6	
Hd-On/SS-Mt	6	6	
SS-Pass	4	4	DETROIT

REMARKS: M-14 WAS TURNED BACK TO THE CITY OF DETROIT EFFECTIVE MARCH 3, 1989.

NO ACTION.

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82801	12.50	13.00	M-14 Non-Freeway Less than 10,000
237 TOTAL ACCIDENTS			
Parking	24	20	
Ped/Bike	9	6	
Hd-On/SS-Mt	7	6	DETROIT

REMARKS: M-14 WAS TURNED BACK TO THE CITY OF DETROIT EFFECTIVE MARCH 3, 1989.

NO ACTION.

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82801	13.00	13.50	M-14 Non-Freeway Less than 10,000
162 TOTAL ACCIDENTS			
Ped/Bike	8	6	
SS-Pass	5	4	DETROIT

REMARKS: M-14 WAS TURNED BACK TO THE CITY OF DETROIT EFFECTIVE MARCH 3, 1989.

NO ACTION.

1983-1987 0.5 MIDBLOCK HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82801	13.50	14.00	M-14 Non-Freeway Less than 10,000
			171 TOTAL ACCIDENTS
Parking	27	20	
Ped/Bike	15	6	
Hd-On/SS-Mt	7	6	DETROIT

REMARKS: M-14 WAS TURNED BACK TO THE CITY OF DETROIT EFFECTIVE MARCH 3, 1989.
NO ACTION.

82801	14.00	14.50	M-14 Non-Freeway Less than 10,000
			166 TOTAL ACCIDENTS
Train	2	2	
Parking	25	20	
Ped/Bike	14	6	DETROIT

REMARKS: M-14 WAS TURNED BACK TO THE CITY OF DETROIT EFFECTIVE MARCH 3, 1989.

NO ACTION.

MIDBLOCK FATAL "NO ACTION" LOCATIONS

1979-1987 0.5 MIDBLOCK FATAL HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82053 Fatal	05.50 6	06.00 3	US-24 Non-Freeway Greater than 20,000 DETROIT/REDWORD TWP.

REMARKS: M.P. DATE TYPE

5.54	1-19-79	PEDESTRIAN
5.65	6-14-80	FIXED OBJECT-SIGN (2 KILLED)
5.60	2-12-79	FIXED OBJECT-ABUTMENT
INT 5.61	6-27-80	RIGHT ANGLE-VIOL DUIL
5.78	10-27-79	PEDESTRIAN
5.95	4-9-83	PEDESTRIAN-VIOL DUIL

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION.

82053 Fatal	06.50 5	07.00 3	US-24 Non-Freeway Greater than 20,000 DETROIT/REDFORD TWP.
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REMARKS: M.P. DATE TYPE

6.66	12-11-83	PEDESTRIAN
6.50	4-13-82	FIXED OBJECT-POLE
INT 6.57	12-05-82	PEDESTRIAN
INT 6.95	12-25-79	RIGHT ANGLE-VIOL DUIL
INT 6.95	8-3-85	ANGLE,81 YR. OLD RAN RED

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

82053 Fatal	08.50 5	09.00 3	US-24 Non-Freeway Greater than 20,000 DETROIT
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REMARKS: M.P. DATE TYPE

8.84	9-28-82	PEDESTRIAN BRAKES FAILED
INT. 8.63	2-15-87	FIXED OBJECT(SIGN) SPEEDING
INT. 8.65	6-3-79	ANGLE FAILURE TO YIELD
INT. 8.93	7-28-84	OTHER DRIVER WAS D.U.I.L.
INT. 8.93	2-5-85	ANGLE

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

1979-1987 0.5 MIDBLOCK FATAL HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER				
82062 FATAL	06.50 5	07.00 3	US-12 DETROIT	Non-Freeway	Greater than 20,000	790 TOTAL ACCIDENTS

REMARKS: M.P. DATE TYPE

INT. 6.55 4-11-86 ANGLE,VIO. WAS D.U.I.L.

INT. 6.89 6-22-85 ANGLE,VIO. RAN RED

INT. 6.89 11-10-87 ANGLE,VIO. RAN RED

INT. 6.91 10-22-79 PEDESTRIAN

INT. 6.99 10-8-83 HEAD-ON,SPUN ON WET PAVE.

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

82062 Fatal	07.50 3	08.00 3	US-12 DETROIT	Non-Freeway	Greater than 20,000	601 TOTAL ACCIDENTS
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REMARKS: M.P. DATE TYPE

 7.53 4-6-79 PEDESTRIAN,DRIVER,D.U.I.L.

INT. 7.63 7-3-82 PEDESTRIAN

INT. 7.68 7-18-86 PEDESTRIAN

NO CORRECTABLE ACCIDENT PATTERN.NO ACTION

82062 FATAL	08.00 7	08.50 3	US-12	NON-FREEWAY	10,000 TO 20,000	637 TOTAL ACCIDENTS
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REMARKS: M.P. DATE TYPE

INT. 8.05 9-14-83 PEDESTRIAN,CROSS FR. BET. PARK. CARS

INT. 8.09 10-17-84 PED. CROSS AT MID-BLOCK

INT. 8.14 5-23-80 HD.-ON LEFT TURN

INT. 8.14 9-1-87 PEDESTRIAN

INT. 8.14 5-30-81 PEDESTRIAN,HIT & RUN

INT. 8.14 5-25-83 ANGLE,VEH. RAN RED& WENT UND. TRUCK

INT. 8.22 11-25-81 PED.,CROSS MID. ,HIT & RUN

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION.

1979-1987 0.5 MIDBLOCK FATAL HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER					
82062	08.50	09.00	US-12	NON-FREEWAY	10,000 TO 20,000	516	TOTAL ACCIDENTS
FATAL			3			3	

REMARKS:	M.P.		DATE		TYPE		
INT.	8.58		1-11-82		PEDESTRIAN, WALK FR. BET. CARS		
INT.	8.59		4-25-83		FIXED OBJECT, SPEED, HIT POLE		
INT.	8.76		8-15-86		PEDESTRIAN		
SEG.	9.0		8-1-87		HEAD-ON, D.U.I.L.		
NO CORRECTABLE ACCIDENT PATTERN. NO ACTION							

82062	10.50	11.00	US-12	Non-Freeway	10,000 to 20,000	397	TOTAL ACCIDENTS
Fatal		3	3	DETROIT			

REMARKS:	M.P.		DATE		TYPE		
INT.	10.68		12-20-87		FIXED OBJECT, POLE, D.U.I.L.		
INT.	10.88		11-22-86		ANGLE, DRIVER 89 YRS. OLD		
INT.	10.91		6-16-85		HEAD ON, 2 AM, WET PAVE.		
NO CORRECTABLE ACCIDENT PATTERN. NO ACTION							

82071	03.00	03.50	M-3	Non-Freeway	10,000 to 20,000	174	TOTAL ACCIDENTS
Fatal		4	3	DETROIT			

REMARKS:	M.P.		DATE		TYPE		
SEG.	3.14		1-23-83		HEAD-ON		
INT.	3.17		4-17-85		SIDESWIPE, OPP., RAN RED, LOST CONTROL		
INT.	3.17		6-6-87		ANGLE, RAN RED		
NO CORRECTABLE ACCIDENT PATTERN. NO ACTION, 1 FATAL NOT AVAIL. ON PRINTOUT							

82071	04.00	04.50	M-3	Non-Freeway	10,000 to 20,000	348	TOTAL ACCIDENTS
Fatal		3	3	DETROIT			

REMARKS:	M.P.		DATE		TYPE		
SEG.	4.46		2-4-80		PEDESTRIAN, RECKLESS DRIVE.		
INT.	4.12		12-19-85		PEDESTRIAN, SPEED. VEH.		
INT.	4.17		8-17-79		PEDESTRIAN, FAILURE TO YIELD		
NO CORRECTABLE ACCIDENT PATTERN. NO ACTION							

1979-1987 0.5 MIDBLOCK FATAL HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82071	04.50	05.00 M-3	Non-Freeway 10,000 to 20,000 446 TOTAL ACCIDENTS

Fatal 3 3 DETROIT

REMARKS: M.P. DATE TYPE

INT. 4.70 4-22-85 HEAD-ON, RECKLESS DRIVING

INT. 4.79 10-28-83 PEDESTRIAN, FAILURE TO YIELD

INT. 4.91 5-1-79 PEDESTRIAN

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

82072	02.00	02.50 M-3	Non-Freeway Greater than 20,000 490 TOTAL ACCIDENTS
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Fatal 3 3 DETROIT

REMARKS: M.P. DATE TYPE

INT. 2.26 6-4-87 PEDESTRIAN, HIT & RUN

INT. 2.46 4-27-81 PEDESTRIAN, HIT & RUN

INT. 2.46 2-2-84 PEDESTRIAN, PED. FELL AGAINST BUS

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

82072	02.50	03.00 M-3	Non-Freeway Greater than 20,000 463 TOTAL ACCIDENTS
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Fatal 3 3 DETROIT

REMARKS: M.P. DATE TYPE

INT. 2.62 12-6-84 U-TURN, FAILURE TO YIELD

INT. 2.65 9-10-81 PEDESTRIAN

INT. 2.78 8-23-82 SIDESWIPE, OPP.-VIO. IN WRONG LANE

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

1979-1987 0.5 MIDBLOCK FATAL HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82072	03.00	03.50 M-3	Non-Freeway Greater than 20,000
Fatal	3	3	DETROIT

REMARKS: M.P. DATE TYPE

INT. 3.15 10-26-85 FIXED OBJECT,POWER POLE,RECK.DRIVE.

INT. 3.48 4-9-83 VEH. LOST CONTROL& HIT VEH.

INT. 3.48 6-15-86 PEDESTRIAN,WALK. INTO THRU LANE

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

82072	03.50	04.00 M-3	Non-Freeway Greater than 20,000
Fatal	4	3	DETROIT

REMARKS: M.P. DATE TYPE

INT. 3.50 11-5-85 ANGLE,2 KILL.,VIO. RAN RED

INT. 3.72 1-9-87 PEDESTRIAN

INT. 3.86 2-21-81 ANGLE,FAILURE TO YIELD

INT. 3.86 2-2-85 ANGLE, FAILURE TO YIELD

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

82072	06.00	06.50 M-3	Non-Freeway Greater than 20,000
Fatal	3	3	DETROIT

REMARKS: M.P. DATE TYPE

INT. 6.14 9-23-80 PEDESTRIAN

INT. 6.26 9-12-81 PEDESTRIAN

INT. 6.47 5-31-86 PEDESTRIAN

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

1979-1987 0.5 MIDBLOCK FATAL HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82072	08.00	08.50 M-3	Non-Freeway Greater than 20,000 818 TOTAL ACCIDENTS

Fatal 3 3 DETROIT

REMARKS: M.P. DATE TYPE

INT. 8.04	1-22-86	PEDESTRIAN
INT. 8.33	8-2-82	PEDESTRIAN, FAILURE TO YIELD
INT. 8.47	2-19-84	PEDESTRIAN

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

82072	08.50	09.00 M-3	Non-Freeway Greater than 20,000 429 TOTAL ACCIDENTS
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Fatal 4 3 DETROIT

REMARKS: M.P. DATE TYPE

INT. 8.55	10-19-85	HEAD-ON, VEH. DRIVE. WRONG WAY
INT. 8.55	10-5-80	PEDESTRIAN
INT. 8.76	6-10-84	ANGLE, VIO. RAN RED
INT. 8.76	5-30-87	ANGLE, VIO. 86 YRS. OLD, RAN RED

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

82121	03.00	03.50 M-5	Non-Freeway Greater than 20,000 222 TOTAL ACCIDENTS
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Fatal 4 3 DETROIT

REMARKS: M.P. DATE TYPE

SEG. 3.16	1-24-83	BIKE., CAR DRIVER. D.U.I.L.
SEG. 3.39	10-6-80	REAR END LEFT TURN
INT. 3.42	1-25-86	PEDESTRIAN, 6AM, LIGHTS NOT WORK.
INT. 3.42	12-19-84	HEAD-ON, VEH. SPUN OUT OF CONT.

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

1979-1987 0.5 MIDBLOCK FATAL HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82121	07.00	07.50 M-5	Non-Freeway Greater than 20,000 686 TOTAL ACCIDENTS

Fatal 5 3 DETROIT

REMARKS: M.P. DATE TYPE

INT. 7.06	4-16-86	PEDESTRIAN, FAILURE TO YIELD
INT. 7.06	7-2-82	BIKE, VEH MADE U-TURN
INT. 7.34	4-27-85	BIKE
INT. 7.39	9-24-80	PEDESTRIAN
INT. 7.47	11-1-85	PEDESTRIAN

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

82123	06.50	07.00 I-96	Freeway Greater than 20,000 199 TOTAL ACCIDENTS
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Fatal 3 3 DETROIT

REMARKS: M.P. DATE TYPE

SEG. 6.62	5-16-83	OVERTURN, VEH. HIT STALL. VEH
SEG. 6.94	9-17-87	REAR END, HIT & RUN
SEG. 6.99	3-30-85	OTHER, DRIVER DRINKING

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

82131	01.50	02.00 M-1 WOODWARD	Non-Freeway Greater than 20,000 538 TOTAL ACCIDENTS
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Fatal 3 3 DETROIT

REMARKS: M.P. DATE TYPE

INT. 1.65	6-11-85	PEDESTRIAN
INT. 1.85	6-17-84	PEDESTRIAN
INT. 1.91	12-21-82	ANGLE, FAILURE TO YIELD

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

1979-1987 0.5 MIDBLOCK FATAL HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82131	02.00	02.50	M-1 WOODWARD Non-Freeway Greater than 20,000
			999 TOTAL ACCIDENTS

Fatal 3 3 DETROIT/HIGHLAND PARK

REMARKS: M.P. DATE TYPE

INT.	2.06	5-22-82	ANGLE
INT.	2.15	7-29-83	PEDESTRIAN
INT.	2.23	12-1-84	REAR END LEFT TURN

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

82131	02.50	03.00	M-1 WOODWARD Non-Freeway Greater than 20,000
			509 TOTAL ACCIDENTS

Fatal 4 3 DETROIT/HIGHLAND PARK

REMARKS: M.P. DATE TYPE

INT.	2.52	10-4-81	PEDESTRIAN RAN IN FRONT OF CAR
SEG.	2.71	11-16-81	PEDESTRIAN TEST. .38 FOR ALCOHOL
INT.	2.84	1-8-81	FIX. OB., DRIVER HEART ATTACK

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION, 1 FATAL NOT AVAI. ON PRINTOUT

82131	03.00	03.50	M-1 WOODWARD Non-Freeway Greater than 20,000
			1157 TOTAL ACCIDENTS

Fatal 3 3 DETROIT/HIGHLAND PARK

REMARKS: M.P. DATE TYPE

SEG.	3.34	5-21-82	REAR END, VEH. IN WRONG LANE
INT.	3.33	6-5-87	ANGLE, FAILURE TO YIELD

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION, 1 FATAL NOT AVAI. ON PRINTOUT

1979-1987 0.5 MIDBLOCK FATAL HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82131	03.50	04.00	M-1 WOODWARD Non-Freeway Greater than 20,000 705 TOTAL ACCIDENTS

Fatal 3 3 DETROIT/HIGHLAND PARK

REMARKS: M.P. DATE TYPE
 INT. 3.69 1-1-81 HEAD-ON L. T.,DRIV. D.U.I.L.
 INT. 3.90 10-26-86 REAR END
 INT. 3.98 9-18-87 PEDESTRIAN

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

82131	05.00	05.50	M-1 WOODWARD Non-Freeway Greater than 20,000 573 TOTAL ACCIDENTS
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Fatal 3 3 DETROIT

REMARKS: M.P. DATE TYPE
 INT. 5.05 11-5-81 ANGLE,FAILURE TO YIELD
 INT. 5.33 1-22-85 PEDESTRIAN,DRIVER WAS D.U.I.L.

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION,1 FATAL NOT AVAI. ON PRINTOUT

82131	07.50	08.00	M-1 WOODWARD NON- FREEWAY GREATER THAN 20,000 437 TOTAL ACCIDENTS
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Fatal 3 3 DETROIT

REMARKS: M.P. DATE TYPE
 INT. 7.53 12-18-81 PEDESTRIAN,DRIVER FAIL TO YIELD
 INT. 7.56 2-2-81 PED. WALK IN FRONT OF BUS

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION,1 FATAL NOT AVAI. ON PRINTOUT

82142	00.50	01.00	M-102 Non-Freeway Greater than 20,000 494 TOTAL ACCIDENTS
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Fatal 3 3 DETROIT

REMARKS: M.P. DATE TYPE
 INT. 0.50 8-28-85 BIKE
 INT. 0.65 8-2-87 BIKE
 INT. 0.90 5-22-82 FIXED OBJECT

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

1979-1987 0.5 MIDBLOCK FATAL HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82142	01.50	02.00 M-102	Non-Freeway Greater than 20,000
598 TOTAL ACCIDENTS			

Fatal 3 3 DETROIT

REMARKS: M.P. DATE TYPE
 SEG. 1.70 11-10-82 PEDESTRIAN
 INT. 1.66 5-19-86 ANGLE, STOLEN VAN RAN RED
 NO CORRECTABLE ACCIDENT PATTERN. NO ACTION, 1 FATAL NOT AVAIL. ON PRINTOUT

82142	02.00	02.50 M-102	Non-Freeway Greater than 20,000
535 TOTAL ACCIDENTS			

Fatal 3 3 DETROIT

REMARKS: M.P. DATE TYPE
 INT. 2.28 8-5-81 PEDESTRIAN
 INT. 2.33 10-29-83 PEDESTRIAN
 INT. 2.42 12-6-86 PEDESTRIAN
 NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

82143	01.50	02.00 M-102	Non-Freeway Greater than 20,000
895 TOTAL ACCIDENTS			

Fatal 3 3 DETROIT

REMARKS: M.P. DATE TYPE
 INT. 1.57 1-22-86 FIXED OBJECT, POWER POLE, WRONG LANE
 INT. 1.90 8-7-81 PEDESTRIAN, FAILURE TO YIELD
 INT. 1.98 12-4-83 ANGLE, FAIL. TO YIELD, DUIL
 NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

1979-1987 0.5 MIDBLOCK FATAL HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82143	02.50	03.00 M-102	Non-Freeway Greater than 20,000 409 TOTAL ACCIDENTS

Fatal 4 3 DETROIT

REMARKS: M.P. DATE TYPE

INT.	2.56	4-18-85	REAR END,WRONG LANE
INT.	2.67	4-23-80	REAR END,DRIVER D.U.I.L.
INT.	2.76	6-24-86	PEDESTRIAN
INT.	2.97	8-25-84	PEDESTRIAN

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

82143	03.00	03.50 M-102	Non-Freeway Greater than 20,000 578 TOTAL ACCIDENTS
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FATAL 4 3 DETROIT

REMARKS M.P. DATE TYPE

INT.	3.05	7-18-84	REAR END AT CROSS OVER
INT.	3.13	5-24-80	ANGLE
INT.	3.19	12-21-80	PEDESTRIAN
INT.	3.42	7-25-83	REAR END

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

82143	03.50	04.00 M-102	Non-Freeway Greater than 20,000 297 TOTAL ACCIDENTS
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Fatal 3 3 DETROIT

REMARKS: M.P. DATE TYPE

INT.	3.91	4-17-85	PEDESTRIAN
INT.	3.95	11-19-83	OTHER
INT.	3.98	1-14-86	PEDESTRIAN,ICY,11 PM

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

1979-1987 0.5 MIDBLOCK FATAL HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82143 04.00	04.50	M-102	Non-Freeway Greater than 20,000 723 TOTAL ACCIDENTS

Fatal 4 3 DETROIT

REMARKS:M.P.	DATE	TYPE
INT. 4.11	1-17-86	ANGLE, FAIL. TO YIELD
INT. 4.11	4-26-85	ANGLE, DRIVER D.U.I.L.
INT. 4.38	2-17-87	REAR END, STALL. VEH.
INT. 4.36	7-23-87	ANGLE, VEH. IN PATH OF AMBUL.

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

82143 05.00	05.50	M-102	Non-Freeway Greater than 20,000 784 TOTAL ACCIDENTS
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Fatal 8 3 DETROIT

REMARKS: M.P.	DATE	TYPE
SEG. 5.08	11-6-82	REAR END
INT. 5.00	5-13-82	PEDESTRIAN
INT. 5.12	3-15-83	PEDESTRIAN, VEH. LOST CONT.
INT. 5.13	8-19-82	ANGLE, DRIVER RAN RED
INT. 5.13	11-19-85	PEDESTRIAN CROSS AGAIN. RED
INT. 5.12	8-28-86	ANGLE, RAN RED AT 100 MPH
INT. 5.12	8-13-83	BIKE, DRIVER OF VEH. 73 YRS. OLD

5 OCCURED AT 8 MILE AT M-53, WILL BE REVIEWED ON HIGH INT. ACCIDENT LIST

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

1979-1987 0.5 MIDBLOCK FATAL HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82143	06.00	06.50 M-102	Non-Freeway Greater than 20,000 834 TOTAL ACCIDENTS

Fatal 8 3 DETROIT

REMARKS: M.P. DATE TYPE

SEG.	6.29	1-16-81	FIXED OB.,VEH LOST CONT.
SEG.	6.31	5-2-84	FIXED OB.,HIGH SPEED,LOST CONT.
INT.	6.24	4-7-84	ANGLE,DRIVER D.U.I.L.
INT.	6.25	6-4-81	ANGLE,FAILURE TO YIELD
INT.	6.25	6-28-81	PEDES. CROSS AGAINST RED

THE ABOVE 3 WILL BE REVIEWED AS PART OF HIGH INT. LIST

INT.	6.44	1-22-83	PEDESTRIAN,WET, 10 PM
INT.	6.48	7-22-83	PEDESTRIAN, 11 PM

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

82143	06.50	07.00 M-102	Non-Freeway Greater than 20,000 283 TOTAL ACCIDENTS
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Fatal 3 3 DETROIT

REMARKS: M.P. DATE TYPE

SEG.	6.53	5-1-81	PASSING,FAILURE TO YIELD
INT.	6.50	5-5-86	PEDESTRIAN,76 YR. OLD IN TRAFFIC
INT.	6.50	8-24-84	PEDESTRIAN,RAN IN FRONT OF TRAFFIC

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

82143	07.00	07.50 M-102	Non-Freeway Greater than 20,000 573 TOTAL ACCIDENTS
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Fatal 4 3 DETROIT

REMARKS: M.P. DATE TYPE

SEG.	7.22	1-15-84	PEDESTRIAN, 2AM, WET
INT.	7.12	4-25-81	ANGLE,FAILURE TO YIELD
INT.	7.13	5-6-86	FIXED OB.,POWER POLE

M-102 AT SCHOENHERR(THE ABOVE 2 WILL BE REVIEW. AS PART OF HIGH ACC. INT.

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

1979-1987 0.5 MIDBLOCK FATAL HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82151	01.50	02.00 M-53	Non-Freeway Greater than 20,000 499 TOTAL ACCIDENTS

Fatal 3 3 DETROIT

REMARKS: M.P. DATE TYPE
 INT. 1.84 3-22-87 FIXED OB. , POWER POLE
 INT. 1.93 10-3-80 HEAD ON
 NO CORRECTABLE ACCIDENT PATTERN. NO ACTION, 1 FATAL NOT AVAIL. ON PRINTOUT

82151	02.50	03.00 M-53	Non-Freeway Greater than 20,000 620 TOTAL ACCIDENTS
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Fatal 3 3 DETROIT

REMARKS: M.P. DATE TYPE
 SEG. 2.88 11-25-81 PASSING, FAIL. TO YIELD, 2 FATALITIES
 INT. 2.91 5-2-82 PEDESTRIAN
 INT. 2.91 4-30-87 HEAD-ON LEFT TURN
 M-53 AT 6 MILE (THE ABOVE 2 WILL BE REVIEW. AS PART OF INT. HIGH ACC.)
 NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

82151	03.00	03.50 M-53	Non-Freeway Greater than 20,000 299 TOTAL ACCIDENTS
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Fatal 3 3 DETROIT

REMARKS: M.P. DATE TYPE
 INT. 3.21 3-3-87 REAR END, 71 YR. OLD RAN INTO REAR BUS
 INT. 3.19 10-27-84 TRAIN, D.U.I.L., RAN INTO MOVE. TRAIN
 INT. 3.42 12-1-82 PEDESTRIAN
 NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

1979-1987 0.5 MIDBLOCK FATAL HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82151	03.50	04.00 M-53	Non-Freeway Greater than 20,000 780 TOTAL ACCIDENTS

Fatal 5 3 DETROIT

REMARKS: M.P. DATE TYPE

INT.	3.52	9-6-80	PEDESTRIAN
INT.	3.74	2-2-85	PEDESTRIAN, FAILURE TO YIELD
INT.	3.84	3-5-84	PEDESTRIAN
INT.	3.92	9-6-87	ANGLE
INT.	3.95	9-6-87	FIXED OBJECT, POWER POLE

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

82151	04.50	04.90 M-53	Non-Freeway Greater than 20,000 294 TOTAL ACCIDENTS
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Fatal 3 3 DETROIT

REMARKS: M.P. DATE TYPE

SEG.	4.51	1-23-85	PED., HIT & RUN, 3 KILLED
SEG.	4.77	1-9-80	PARK. VEH., RECKLESS DRIVE.
INT.	4.76	8-26-80	FIXED OB., TREE

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

82192	07.69	08.19 M-39	Freeway Greater than 20,000 248 TOTAL ACCIDENTS
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Fatal 3 3 DETROIT

REMARKS: M.P. DATE TYPE

SEG.	7.83	8-5-85	BIKE
SEG.	8.08	9-8-82	PEDESTRIAN
SEG.	8.14	12-9-80	REAR END

NO CORRECTABLE ACCIDENT PATTERN. NO ACTION

1979-1987 0.5 MIBLOCK FATAL HIGH-ACCIDENT LIST

DISTRICT 9

ACC TYPE	# ACC	THRESHOLD NUMBER	PERCENT OF TOTAL
82211	15.00	15.24 M-85	Non-Freeway Greater than 20,000
299 TOTAL ACCIDENTS			
Fatal	3	3 DETROIT	

REMARKS: M.P.	DATE	TYPE
INT. 15.05	3-23-85	ANGLE,RAN RED
INT. 15.05	9-8-85	ROLLOVER,CEMENT TRUCK ROLLED
INT. 15.05	10-23-85	ANGLE,RAN RED,NO LICENSE OR INS.

WILL BE REVIEW. AS PART OF HIGH ACC. INT. LIST
 NO CORRECTABLE ACCIDENT PATTERN. NO ACTION