



DEPARTMENT OF PUBLIC WORKS
Administration - Building - Engineering - Transportation
Fleet Management - Solid Waste Management - Traffic

750 Main Street • P.O. Box 20,000 • Grand Junction, Colorado 81502-5022
Ph (970) 244-1765 Fax (970) 255-7171

Ms. Emily Gloeckner P.E.
Fehr & Peers Transportation Consultants
621 17th Street Ste. 2301
Denver, CO 80293

Dear Ms. Gloeckner:

Enclosed are two intersection applications for analysis and prioritization.

1. E Road at US 141B
2. 30 Road at I70B

If you have any questions or need additional information, please contact me at (970) 254-4151

Thank you for your time and consideration.

James W Nall P.E.

A handwritten signature in black ink that reads "James W. Nall".

Mesa County Safety and Traffic Engineer

Xc Baier / Meininger / King

DEPARTMENT OF TRANSPORTATION

Traffic & Safety Section

222 South 6th Street, Room 100
Grand Junction, Colorado 81501
(970) 683-6287 Fax: 970-683-6290



Date: October 12, 2010
To: City/County Transportation Officials
From: Alisa Babler
Permit Unit Engineer
Subject: **CDOT Region 3 Intersection Analysis and Prioritization
Request for Applications**

CDOT Region 3 Traffic and Safety (CDOT) has commissioned Fehr and Peers to complete the Intersection Analysis and Prioritization Study. The intent of this study is to update the study done in 2007, develop a methodology, and prioritize intersection improvements for the use of the TPR and CDOT in a multi-year funding program. Up to three intersections per county will be analyzed in-depth and ranked, to assist in developing priorities for CDOT and the TPR. The study will analyze the intersections, identifying long and short term improvements to address deficiencies, and recommend prioritization for future funding.

At this time we are requesting intersection applications for the study. Intersections for consideration should have safety or operational issues and be located on the state highway system. We are requesting that counties submit up to three intersections for inclusion in the study. Additionally, please provide the application packet to cities within your respective county for additional submittals by the city if desired. All intersections submitted will be compiled and an initial evaluation done to establish the top three intersections in the county for an in-depth analysis and inclusion in the study. Intersections not included in the in-depth analysis will be provided as a list in the appendix for future reference.

Any supporting data and documentation available, as it relates to the intersection, will be useful in determining applicable improvements and the final priority of the intersection. The application should include as many specifics as possible regarding deficiencies of the intersection, time of day, impacts of weather, geometric constraints, right of way constraints, crash history, and any other site specific information available.

Please provide your applications no later than **December 1, 2010**. Completed applications should be sent to:

Emily Gloeckner, P.E.
Fehr & Peers Transportation Consultants
621 17th Street, Ste. 2301
Denver, CO 80293
E.Gloeckner@fehrandpeers.com

Phone: 303-296-4300
Fax: 303-296-4302

Thank you for assisting us in the development of this program. Should you have any questions, please feel free to contact the CDOT project manager, Alisa Babler at 970-683-6271 or the Fehr & Peers project manager, Emily Gloeckner, at 303-296-4300.

Region 3 Intersection Analysis and Prioritization
Intersection Application

Requesting Agency

Agency Name	Mesa County
Contact Person	James Nall
Title	Traffic Engineer
Email	James.Nall@mesacounty.us
Phone Number	970 254-4151
Mailing Address	750 Main Street Grand Junction, Co 81502

Intersection Location

Highway (example, US 50)	I-70B		
Highway Milepost	9.4 - 9.6		
Local Cross Street name	30 Road		
Is the Cross Street (check one)	Public ROW <input checked="" type="checkbox"/>	Private Drive <input type="checkbox"/>	Other <input type="checkbox"/>

Intersection Information

Type of Intersection (check one)	Signal	Minor St Stop	All Way Stop	Other:
Nearby Driveways	Yes: Distance between intersections:			No
Traffic Mix (check all that apply)	Trucks	Pedestrians	Bicycles	Other:
Intersection Issues	Please describe the types of safety or operational issues at the intersection.			
Safety Issues:	<p>13 access related accidents approx 284' North of I-70B</p> <p>71% of accident at I-70B 30 road are rear-end. The expected value base of urban baseline 4-lane signalized 4-lane is 45%. RE are over representation</p>			
Operational Issues:	<p>The geometry allows for dual left turns. The phasing for left movements is protected only. Because of the inefficiency of the signal phasing, vehicles are "cutting through a stop mail to avoid signals. This cut through is related to the 13 access related accidents</p>			

Intersection Deficiencies

Please provide a brief description of the existing intersection deficiencies and associated safety concerns, including time of the concerns (day of the week/hour(s)/seasons/time/weekday/weekend/holiday/etc):

- Signal phasing "protected only" for dual left turns
- maybe some yellow clearance time checks for rear end type accidents
- advanced dilemma zone detection may help rear end accident pattern

Mitigation

Please provide a brief description of possible mitigations, improvements, and/or projects to mitigate the safety concerns at the intersection:

(see ps 4.

Are there any existing plans for improvements for this intersection? Yes/No. If yes, please explain:

Are any additional funding sources available for this project: Yes/No. If yes, please explain:

Does this intersection have impacts to adjacent intersections, roadways, etc? If yes, please explain:

Yes see remarks p 3

Additional Information

To assist in analyzing the intersection please attach the following information if available/applicable:

- ✓ Accident data, including police reports if available
- Traffic Volumes, such as AADT/ADT, peak hour volumes, peak hour turning movement counts - CDOT
- Traffic Studies
- Pedestrian Counts
- Bicycle Counts
- Existing signal timing or Synchro files - CDOT
- Existing construction plans - CDOT
- Survey data
- Aerial photos
- Photographs of the intersection
- Right of Way maps
- Any other data/documentation to assist in analyzing the intersection



**Colorado Department of Transportation
Transportation Safety and Traffic Engineering
Detailed Accident Summary Report**

11/16/2010

Job #: 20101116080803

Highway: 70B **Begin:** 9.40 **End:** 9.60 **From:** 01/01/2004 **To:** 12/31/2006

Severity	Multi-Vehicle	Location
PDO: 56	One Vehicle: 1	On Road: 71 Off in Median: 0
INJ: 13 13 :Injured	Two Vehicles: 67	Off Road Left: 0 Unknown: 0
FAT: 2 2 :Killed	Three or More: 3	Off Road Right: 0
Total: 71	Unknown: 0	Off Road at Tee: 0 Total: 71
	Total: 71	

Accident Type		
Overturning: 0	Domestic Animal: 0	Tree: 0
Other Non Collision: 1	Wild Animal: 0	Large Boulder: 0
School Age Peds: 0	Light/Utility Pole: 0	Rocks in Roadway: 0
Other Pedestrians: 0	Traffic Signal Pole: 0	Barricade: 0
Broadside: 3	Sign: 0	Wall/Building: 0
Head On: 0	Bridge Rail: 0	Crash Cushion: 0
Rear End: 57	Guard Rail: 0	Mailbox: 0
Sideswipe (Same): 4	Median Barrier: 0	Other Fixed Object: 0
Sideswipe (Opposite): 0	Bridge Abutment: 0	Involving Other Object: 1
Approach Turn: 4	Column/Pier: 0	Road Maintenance Equipment: 0
Overtaking Turn: 0	Culvert/Headwall: 0	Unknown: 0
Parked Motor Vehicle: 1	Embankment: 0	Total: 71
Railway Vehicle: 0	Curb: 0	Total Fixed Objects: 0
Bicycle: 0	Delineator Post: 0	Total Other Objects: 1
Motorized Bicycle: 0	Fence: 0	

Lighting Conditions	
Daylight: 52	
Dawn or Dusk: 2	
Dark - Lighted: 16	
Dark - Unlighted: 1	
Unknown: 0	
Total: 71	

Weather Conditions		
None: 69	Dust: 0	
Rain: 1	Wind: 0	
Snow/Sleet/Hail: 1	Unknown: 0	
Fog: 0		
Total: 71		

Road Description	
At Intersection: 43	
At Driveway Access: 0	
Intersection Related: 20	
Non Intersection Urban: 4	
In Alley: 0	
Non Intersection Rural: 4	
Ramp: 0	
Unknown: 0	
Total: 71	

Road Conditions	
Dry: 66	
Wet: 2	
Muddy: 0	
Snowy: 1	
Icy: 1	
Slushy: 0	
Foreign Material: 0	
With Road Treatment: 0	
Dry w/Icy Road Treatment: 0	
Wet w/Icy Road Treatment: 1	
Snowy w/Icy Road Treatment: 0	
Icy w/Icy Road Treatment: 0	
Slushy w/Icy Road Treatment: 0	
Unknown: 0	
Total: 71	

Mainline/Ramps/Frontage Rds	
Mainline: 70	
Crossroad (Ramp A): 0	
Frontage Rd: 0	
Ramps	
B: 0	H: 0
C: 0	I: 0
D: 0	J: 0
E: 0	K: 0
F: 0	T: 0
G: 0	

Intsx Frontage/Ramps	
M: 0	N: 1
O: 0	P: 0
HOV Lanes: 0	
Uknwn: 0	Total: 71

Accident Rates	
PDO: 1.98	MVMT Total: 2.51
Injury: 0.46	MVMT
Fatal: 7.06	100 MVMT

ADT: 25850 **WHI:** -3.02 **Length:** 1.00 **Coris File:** tcoris2006.dbf

Vehicle Type	Veh 1	Veh 2	Veh 3
Passenger Car/Van:	45	54	1
Passenger Car/Van w/Trl:	0	0	0
Pickup Truck/Utility Van:	21	16	2
Pickup Truck/Utility Van w/Trl:	2	0	0
Truck 10k lbs or Less:	0	0	0
Trucks > 10k lbs/Bus > 15 People:	2	0	0
School Bus < 15 People:	0	0	0
Non School Bus < 15 People:	0	0	0
Motorhome:	0	0	0
Motorcycle:	1	0	0
Bicycle:	0	0	0
Motorized Bicycle:	0	0	0
Farm Equipment:	0	0	0
Hit and Run - Unknown:	0	0	0
Other:	0	0	0
Unknown:	0	0	0
Total:	71	70	3

Vehicle Movement	Veh 1	Veh 2	Veh 3
Going Straight:	37	7	0
Slowing:	4	6	0
Stopped in Traffic:	1	43	3
Making Right Turn:	10	2	0
Making Left Turn:	3	7	0
Making U-Turn:	0	0	0
Passing:	0	0	0
Backing:	3	0	0
Enter/Leave Parked Position:	0	0	0
Starting in Traffic:	11	4	0
Parked:	0	1	0
Changing Lanes:	2	0	0
Avoiding Object in Road:	0	0	0
Weaving:	0	0	0
Other:	0	0	0
Unknown:	0	0	0
Total:	71	70	3

Contributing Factor	Veh 1	Veh 2	Veh 3
No Apparent Contributing Factor:	22	66	3
Asleep at the Wheel:	0	0	0
Illness:	1	1	0
Distracted by Passenger:	1	0	0
Driver Inexperience:	3	0	0
Driver Fatigue:	0	0	0
Driver Preoccupied:	42	2	0
Driver Unfamiliar with Area:	1	1	0
Driver Emotionally Upset:	0	0	0
Evading Law Enforcement Officer:	0	0	0
Physical Disability:	1	0	0
Unknown:	0	0	0
Total:	71	70	3

Direction	Veh 1	Veh 2	Veh 3
North:	17	16	1
Northeast:	0	0	0
East:	35	31	1
Southeast:	0	0	0
South:	5	7	0
Southwest:	0	0	0
West:	14	16	1
Northwest:	0	0	0
Unknown:	0	0	0
Total:	71	70	3

Condition of Driver	Veh 1	Veh 2	Veh 3
No Impairment Suspected:	65	69	3
Alcohol Involved:	3	0	0
RX Drugs or Medication Involved:	0	0	0
Illegal Drugs Involved:	0	0	0
Alcohol and Drugs Involved:	0	0	0
Driver/Pedestrian not Observed:	3	1	0
Unknown:	0	0	0
Total:	71	70	3

hwy	mp	date	time	sev	serial	location	road_desc	vehicles	contour	condition	lighting	weather	ramp	acstype	dir_1	veh_move_1	speed_1	factor_1	veh_1
0708		9.4	12/30/2005 1720	PDO	053418	ON	INTERSEC	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	STARTING IN TRAFFIC	0.05	PASS CAF NO IMPAIF DRIVER P.05	veh_1
0708		9.42	04/25/2006 1650	PDO	063144	ON	NON-INTE	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.20	PASS CAF NO IMPAIF DRIVER P.20	veh_1
0708		9.46	05/20/2006 0620	PDO	063205	ON	NON-INTE	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.15	PASS CAF NO IMPAIF DRIVER P.15	veh_1
0708		9.48	07/13/2004 1725	PDO	043206	ON	INTERSEC	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.45	PASS CAF NO IMPAIF DRIVER P.45	veh_1
0708		9.48	12/13/2004 1815	PDO	043398	ON	INTERSEC	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.05	PICKUP TNO IMPAIF DRIVER P.05	veh_1
0708		9.48	01/30/2006 0730	INU	063031	ON	NON-INTE	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.35	PASS CAF ALCOHOL DRIVER P.35	veh_1
0708		9.49	01/27/2004 0945	PDO	043058	ON	INTERSEC	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.10	PICKUP TNO IMPAIF DRIVER P.10	veh_1
0708		9.49	03/16/2004 1740	PDO	043042	ON	INTERSEC	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	STARTING IN TRAFFIC	0.05	PASS CAF NO IMPAIF DRIVER P.05	veh_1
0708		9.49	08/13/2004 1710	PDO	043089	ON	INTERSEC	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.05	PICKUP TNO IMPAIF DRIVER P.05	veh_1
0708		9.49	06/16/2005 1900	PDO	043242	ON	INTERSEC	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.20	PASS CAF NO IMPAIF NONE APT 20	veh_1
0708		9.49	07/04/2005 1620	PDO	053205	ON	INTERSEC	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.05	PASS CAF NOT OBSE NONE APT 30	veh_1
0708		9.49	08/27/2006 1145	INU	063268	ON	INTERSEC	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.05	PICKUP TNO IMPAIF DRIVER P.05	veh_1
0708		9.48	11/16/2006 0720	PDO	063375	ON	INTERSEC	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	STARTING IN TRAFFIC	0.05	PICKUP TNO IMPAIF DRIVER P.05	veh_1
0708		9.48	01/08/2005 1205	PDO	053009	ON	INTERSEC	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.35	PASS CAF ALCOHOL DRIVER P.35	veh_1
0708		9.48	09/15/2005 1005	PDO	053282	ON	INTERSEC	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.10	PASS CAF NOT OBSE NONE APT 30	veh_1
0708		9.5	01/04/2004 0115	PDO	043003	ON	INTERSEC	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	STARTING IN TRAFFIC	0.05	PICKUP TNO IMPAIF DRIVER P.05	veh_1
0708		9.5	03/21/2004 0115	PDO	043091	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.05	PICKUP TNO IMPAIF DRIVER P.05	veh_1
0708		9.5	04/03/2005 1025	PDO	043075	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.40	PICKUP TNO IMPAIF DRIVER P.40	veh_1
0708		9.5	02/12/2004 1625	PDO	043075	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.05	PICKUP TNO IMPAIF DRIVER P.05	veh_1
0708		9.5	02/16/2004 1105	PDO	043075	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.40	PICKUP TNO IMPAIF DRIVER P.40	veh_1
0708		9.5	02/20/2004 0932	PDO	043075	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.05	PICKUP TNO IMPAIF DRIVER P.05	veh_1
0708		9.5	02/25/2004 1200	PDO	043057	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.05	PASS CAF NO IMPAIF NONE APT 10	veh_1
0708		9.5	04/07/2004 1755	PDO	043057	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.05	PASS CAF NO IMPAIF NONE APT 05	veh_1
0708		9.5	05/08/2004 1225	PDO	043110	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.05	PASS CAF NOT OBSE DRIVER P.05	veh_1
0708		9.5	05/09/2004 1415	PDO	043142	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.05	PASS CAF NOT OBSE DRIVER P.05	veh_1
0708		9.5	05/11/2004 1335	INU	043138	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.40	PICKUP TNO IMPAIF DRIVER P.40	veh_1
0708		9.5	05/09/2004 1415	PDO	043145	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.10	PASS CAF NO IMPAIF DRIVER P.10	veh_1
0708		9.5	06/18/2004 1565	PDO	043179	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.05	PASS CAF NO IMPAIF DRIVER P.05	veh_1
0708		9.5	07/06/2004 2200	PDO	043200	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.45	PICKUP TNO IMPAIF PHYSICAL 45	veh_1
0708		9.5	07/24/2004 1015	PDO	043216	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.20	PASS CAF NO IMPAIF DRIVER P.20	veh_1
0708		9.5	08/27/2004 0745	PDO	043260	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.05	PICKUP TNO IMPAIF DRIVER P.05	veh_1
0708		9.5	08/30/2004 1798	INU	043259	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.05	PICKUP TNO IMPAIF DRIVER P.05	veh_1
0708		9.5	09/15/2004 2215	PDO	043279	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.05	PASS CAF NO IMPAIF NONE APT 15	veh_1
0708		9.5	10/13/2004 0762	PDO	043283	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.45	PICKUP TNO IMPAIF NONE APT 45	veh_1
0708		9.5	12/07/2004 0850	PDO	043388	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.05	PICKUP TNO IMPAIF NONE APT 05	veh_1
0708		9.5	02/07/2005 1840	PDO	053039	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.07	PASS CAF NO IMPAIF NONE APT 07	veh_1
0708		9.5	02/25/2005 1720	PDO	053317	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.20	PASS CAF NO IMPAIF DRIVER P.20	veh_1
0708		9.5	07/16/2005 1710	PDO	053221	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.02	PICKUP TNO IMPAIF DRIVER P.02	veh_1
0708		9.5	08/12/2005 1500	PDO	053248	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.20	TRUCK GN NO IMPAIF DRIVER P.20	veh_1
0708		9.5	10/06/2005 1135	INU	053272	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.05	PASS CAF NO IMPAIF NONE APT 05	veh_1
0708		9.5	11/05/2005 1815	INU	053042	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.10	PICKUP TNO IMPAIF DRIVER P.10	veh_1
0708		9.5	11/07/2005 0710	INU	053042	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.05	PASS CAF NO IMPAIF DRIVER P.05	veh_1
0708		9.5	11/22/2005 1330	PDO	053355	ON	INTERSEC	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.01	PICKUP TNO IMPAIF DRIVER P.01	veh_1
0708		9.5	12/16/2005 0600	FAT	053352	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.03	PICKUP TNO IMPAIF DISTRCT 03	veh_1
0708		9.5	01/21/2006 1850	PDO	063028	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.50	PASS CAF NO IMPAIF DRIVER P.50	veh_1
0708		9.5	01/22/2006 1500	PDO	063027	ON	NON-INTE	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.05	PASS CAF NO IMPAIF DRIVER P.05	veh_1
0708		9.5	03/30/2006 1346	INU	063117	ON	INTERSEC	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.15	PICKUP TNO IMPAIF DRIVER P.15	veh_1
0708		9.5	05/11/2006 0936	INU	063057	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.05	PASS CAF NO IMPAIF NONE APT 05	veh_1
0708		9.5	05/22/2006 1702	PDO	063207	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.15	PICKUP TNO IMPAIF DRIVER P.15	veh_1
0708		9.5	03/02/2006 0700	PDO	063164	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.05	PASS CAF NO IMPAIF NONE APT 05	veh_1
0708		9.5	12/02/2006 0650	INU	063068	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.05	PASS CAF NO IMPAIF NONE APT 05	veh_1
0708		9.5	08/23/2004 2029	PDO	043252	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.10	PICKUP TNO IMPAIF NONE APT 10	veh_1
0708		9.5	12/13/2005 1218	PDO	043252	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.20	PASS CAF NO IMPAIF DRIVER P.20	veh_1
0708		9.5	09/19/2006 1620	INU	063397	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.25	PASS CAF NO IMPAIF DRIVER P.25	veh_1
0708		9.5	09/30/2006 2212	FAT	063286	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.25	PASS CAF NO IMPAIF DRIVER P.25	veh_1
0708		9.5	03/28/2005 2205	PDO	063110	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.05	PICKUP TNO IMPAIF NONE APT 05	veh_1
0708		9.5	04/06/2006 1904	INU	063123	ON	AT INTER	2 STRAIGHT DRY	2 STRAIGHT DRY	DRY	DAYLIGHT NONE	DARK-LIGNONE	N	REAR-ENI	REAR-ENI	GOING STRAIGHT	0.05	PASS CAF NO IMPAIF NONE APT 05	veh_1
0708		9.5																	

Accident Summary Report 30.00 ROAD 284' NORTH OF COLO 70B

Total Fatalities	0	Roadway Lighting	
Total Injuries	0	Daylight	10
Total Vehicles	28	Dusk	2
Fatal Incidents	0	Dark, lighted	1
Injury Incidents	0	Dark, unlighted	1
PDO Incidents	14	Weather	
Total Incidents	14	Clear	11
		Rain	3
First Harmful Event	12	Annual Compilation	
Front to Side	1	2004	8
Side-swipe same dir	1	2005	6
Collision with object	1	Days Of Week	
Causal Factor	3	Sunday	1
Failed to yield R-O-W	7	Monday	3
Improper left turn	1	Tuesday	2
Other improper turns	1	Wednesday	1
Lane violations	1	Thursday	3
Improper passing	1	Friday	2
Improper vehicle lighting	1	Saturday	2
Reference To Road		Time Of Day Comparison	
On roadway accident	13	0800 -- 1059	1
Ran off right side	1	1300 -- 1559	3
Occurance Location		1600 -- 1759	6
Driveway access related	13	1800 -- 2059	3
Intersection related	1	2100 -- 2359	1
Road Surface Environment		Driver Age Comparison	
Dry	13	15 -- 18	2
Wet	1	19 -- 24	2
Errant Vehicle Direction		25 -- 44	7
North	7	45 -- 64	1
East	4	65 -- 74	1
South	3	75 +	1

Accident Summary Report con't
30.00 ROAD 284' NORTH OF COLO 70B con't

Accident Details

Date	Time	Day Of Week	Dvr Age	Errant Direction	Errant Vehicle Speed	Causal Factor	Resultant Event	2nd Vehicle Direction	2nd Vehicle Speed	Fatal Injury	Number Of Vehicles
01/14/2004	17:25	Wed	27	S	25/40	Lane violations	Front to Side	E	20/40	0	2
02/10/2004	16:30	Tue	49	N	10/40	Improper left turn	Front to Side	S	35/40	0	2
04/18/2004	10:35	Sun	27	N	05/40	Other improper turns	Front to Side	N	05/40	0	2
04/30/2004	17:25	Fri	20	N	10/40	Improper left turn	Front to Side	S	25/40	0	2
09/11/2004	19:50	Sat	18	E	10/35	Failed to yield R-O-W	Front to Side	N	05/35	0	2
09/17/2004	17:20	Fri	18	E	10/40	Failed to yield R-O-W	Front to Side	S	35/40	0	2
10/11/2004	14:30	Mon	41	N	05/40	Improper left turn	Front to Side	S	35/40	0	2
10/25/2004	18:20	Mon	31	E	10/40	Failed to yield R-O-W	Front to Side	S	20/40	0	2
03/01/2005	15:00	Tue	28	N	10/40	Improper left turn	Front to Side	S	25/40	0	2
03/24/2005	22:30	Thu	21	E	10/35	Improper left turn	Front to Side	N	25/35	0	2
04/21/2005	16:55	Thu	32	N	15/40	Improper left turn	Collision with object	S	40/40	0	2
05/16/2005	16:04	Mon	77	S	15/35	Improper passing	Side-swipe same dir	S	00/35	0	2
05/19/2005	15:12	Thu	66	N	10/40	Improper left turn	Front to Side	S	20/40	0	2
10/15/2005	19:50	Sat	35	S	30/30	Improper vehicle lighting	Front to Side	E	05/30	0	2

30.00 ROAD 284' NORTH OF COLO 70B

Primary	Location	Date	Time	Acc_type	Acc_where	R_lighting	R_Weather	R_contour	R_surface	R_environ	Ped_action	Vehicles	Injured	Fatal
30.00 ROAD	284' NORTH OF COLO 70B	01/14/2004	17:25	08	02	00	00	01	00	00	02	00	00	00
		02/10/2004	16:30	08	02	01	00	00	01	00	00	02	00	00
		04/18/2004	10:35	08	02	01	00	00	01	00	00	02	00	00
		04/30/2004	17:25	08	02	01	01	00	01	00	01	00	00	00
		09/11/2004	19:50	08	02	02	00	00	01	00	00	02	00	00
		09/17/2004	17:20	08	02	01	00	00	01	00	00	02	00	00
		10/11/2004	14:30	08	02	01	00	00	01	00	00	02	00	00
		10/25/2004	18:20	08	02	01	00	00	01	00	00	02	00	00
		03/01/2005	15:00	08	02	01	00	00	01	00	00	02	00	00
		03/24/2005	22:30	08	02	03	01	00	01	00	00	02	00	00
		04/21/2005	16:55	14	02	01	01	00	01	00	00	02	00	00
		05/16/2005	16:04	11	03	01	00	00	01	00	00	02	00	00
		05/19/2005	15:12	08	02	01	00	00	01	00	00	02	00	00
		10/15/2005	19:50	08	02	04	00	00	01	00	00	02	00	00

Accident Summary Report con't 30.00 ROAD 284' NORTH OF COLO 70B con't

Acc_where

- (00) Other
- (01) At intersection
- (02) Driveway access related
- (03) Intersection related
- (04) Non-intersection
- (05) Alley Related
- (06) Roundabout
- (07) Highway interchange

Acc_type

- (00) None
- (01) Overturning
- (02) Other non-collision
- (03) Ped (school age to/from)
- (04) Ped on Toy Vehicle
- (05) Ped (all others)
- (06) Front to Front
- (07) Front to Rear
- (08) Front to Side
- (09) Rear to Side
- (10) Rear to Rear
- (11) Side-swipe same dir
- (12) Side-swipe opp dir
- (13) Collision with animal
- (14) Collision with object

Ped_action

- (00) None
- (01) Xing against signal
- (02) Xing at intersection
- (03) J-walking
- (04) Standing in RDWY
- (05) Playing in RDWY
- (06) Soliciting ride
- (07) In RDWY with traffic
- (08) In RDWY against traffic
- (09) Enter/exit vehicle
- (10) Push/work on vehicle
- (11) Lying in RDWY
- (12) Other

R_environ

- (00) Dry
- (01) Wet
- (02) Muddy
- (03) Snowy
- (04) Icy
- (05) Slushy
- (06) Foreign material
- (07) Dry w/visible IRT
- (08) Wet w/visible IRT
- (09) Snowy w/visible IRT
- (10) Icy w/visible IRT
- (11) Slushy w/visible IRT

R_contour

- (00) Straight, on-level
- (01) Straight, on-grade
- (02) Curve, on-level
- (03) Curve, on-grade
- (04) Hillcrest

R_lighting

- (00) Dawn
- (01) Daylight
- (02) Dusk
- (03) Dark, lighted
- (04) Dark, unlighted

R_surface

- (00) Concrete
- (01) Blacktop
- (02) Brick or block
- (03) Gravel, slag or stone
- (04) Dirt
- (05) Other

R_weather

- (00) Clear
- (01) Rain
- (02) Snow/sleet/hail
- (03) Fog
- (04) Dust
- (05) Wind



Cut through traffic



Date: October 12, 2010
To: City/County Transportation Officials
From: Alisa Babler
Permit Unit Engineer
Subject: **CDOT Region 3 Intersection Analysis and Prioritization
Request for Applications**

CDOT Region 3 Traffic and Safety (CDOT) has commissioned Fehr and Peers to complete the Intersection Analysis and Prioritization Study. The intent of this study is to update the study done in 2007, develop a methodology, and prioritize intersection improvements for the use of the TPR and CDOT in a multi-year funding program. Up to three intersections per county will be analyzed in-depth and ranked, to assist in developing priorities for CDOT and the TPR. The study will analyze the intersections, identifying long and short term improvements to address deficiencies, and recommend prioritization for future funding.

At this time we are requesting intersection applications for the study. Intersections for consideration should have safety or operational issues and be located on the state highway system. We are requesting that counties submit up to three intersections for inclusion in the study. Additionally, please provide the application packet to cities within your respective county for additional submittals by the city if desired. All intersections submitted will be compiled and an initial evaluation done to establish the top three intersections in the county for an in-depth analysis and inclusion in the study. Intersections not included in the in-depth analysis will be provided as a list in the appendix for future reference.

Any supporting data and documentation available, as it relates to the intersection, will be useful in determining applicable improvements and the final priority of the intersection. The application should include as many specifics as possible regarding deficiencies of the intersection, time of day, impacts of weather, geometric constraints, right of way constraints, crash history, and any other site specific information available.

Please provide your applications no later than **December 1, 2010**. Completed applications should be sent to:

Emily Gloeckner, P.E.
Fehr & Peers Transportation Consultants
621 17th Street, Ste. 2301
Denver, CO 80293
E.Gloeckner@fehrandpeers.com

Phone: 303-296-4300
Fax: 303-296-4302

Thank you for assisting us in the development of this program. Should you have any questions, please feel free to contact the CDOT project manager, Alisa Babler at 970-683-6271 or the Fehr & Peers project manager, Emily Gloeckner, at 303-296-4300.

Region 3 Intersection Analysis and Prioritization
Intersection Application

Requesting Agency

Agency Name	Mesa County
Contact Person	James Nall
Title	Traffic Engineer
Email	James.Nall@mesacounty.us
Phone Number	970 254-4151
Mailing Address	750 Main Street Grand Junction, Co 81502

Intersection Location

Highway (example, US 50)	SH 141B		
Highway Milepost	161.40		
Local Cross Street name	E-Road		
Is the Cross Street (check one)	Public ROW <input checked="" type="checkbox"/>	Private Drive	Other

Mitigation

Please provide a brief description of possible mitigations, improvements, and/or projects to mitigate the safety concerns at the intersection:

- Eliminate gutter pans
- Improve side street radius
- Eliminate / relocate / mitigate commercial access

Are there any existing plans for improvements for this intersection? Yes/No. If yes, please explain:

See attachment #1

Are any additional funding sources available for this project: Yes/No. If yes, please explain:

- Can fund part of the project. Would like to partner with COT

Does this intersection have impacts to adjacent intersections, roadways, etc? If yes, please explain:

No

Additional Information

To assist in analyzing the intersection please attach the following information if available/applicable:

- ✓• Accident data, including police reports if available
- ✓• Traffic Volumes, such as AADT/ADT, peak hour volumes, peak hour turning movement counts
- ✓• Traffic Studies
 - Pedestrian Counts
 - Bicycle Counts
 - Existing signal timing or Synchro files
- ✓• Existing construction plans
 - Survey data
 - Aerial photos
- ✓• Photographs of the intersection
 - Right of Way maps
 - Any other data/documentation to assist in analyzing the intersection

Intersection Information

Type of Intersection (check one)	Signal	Minor St Stop	All Way Stop	Other:
Nearby Driveways	Yes: <input checked="" type="checkbox"/>			No
	Distance between intersections:			
Traffic Mix (check all that apply)	Trucks	Pedestrians	Bicycles	Other:
Intersection Issues	Please describe the types of safety or operational issues at the intersection.			
Safety Issues:	<p>Broadside accidents are over represented when compared to established urban baselines 33% vs a baseline of 25%.</p>			
Operational Issues:	<p>Because of deep cross street gutter pans and a commercial access within the functional length of the cross road, vehicles may be "at risk" when attempting left turns from mainline to cross street</p>			

Intersection Deficiencies

Please provide a brief description of the existing intersection deficiencies and associated safety concerns, including time of the concerns (day of the week/hour(s)/seasons/time/weekday/weekend/holiday/etc):

- gutter pans on cross streets
- Commercial access within functional area
- old signal poles - mast arm - heads



**Colorado Department of Transportation
Transportation Safety and Traffic Engineering
Detailed Accident Summary Report**

Highway: 141B Begin:161.40 End:161.60 From:01/01/2004 To:12/31/2006

Severity PDO: 12 INJ: 3 6 :Injured FAT: 0 0 :Killed <hr/> Total: 15	Multi-Vehicle One Vehicle: 2 Two Vehicles: 12 Three or More: 1 Unknown: 0 <hr/> Total: 15	Location On Road: 15 Off in Median: 0 Off Road Left: 0 Unknown: 0 Off Road Right: 0 Off Road at Tee: 0 <hr/> Total: 15
---	--	---

Accident Type Overturning: 0 Other Non Collision: 0 School Age Peds: 0 Other Pedestrians: 0 Broadside: 5 Head On: 0 Rear End: 6 Sideswipe (Same): 0 Sideswipe (Opposite): 0 Approach Turn: 1 Overtaking Turn: 1 Parked Motor Vehicle: 0 Railway Vehicle: 0 Bicycle: 0 Motorized Bicycle: 0	Domestic Animal: 0 Wild Animal: 0 Light/Utility Pole: 0 Traffic Signal Pole: 0 Sign: 0 Bridge Rail: 0 Guard Rail: 0 Median Barrier: 0 Bridge Abutment: 0 Column/Pier: 0 Culvert/Headwall: 0 Embankment: 0 Curb: 0 Delineator Post: 0 Fence: 0	Tree: 0 Large Boulder: 0 Rocks in Roadway: 0 Barricade: 0 Wall/Building: 0 Crash Cushion: 0 Mailbox: 0 Other Fixed Object: 0 Involving Other Object: 2 Road Maintenance Equipment: 0 Unknown: 0 <hr/> Total: 15 Total Fixed Objects: 0 Total Other Objects: 2
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Lighting Conditions	
Daylight:	8
Dawn or Dusk:	2
Dark - Lighted:	4
Dark - Unlighted:	1
Unknown:	0
Total: 15	

Weather Conditions	
None:	14
Rain:	0
Snow/Sleet/Hail:	0
Fog:	0
Dust:	0
Wind:	1
Unknown:	0
Total: 15	

Road Description	
At Intersection:	11
At Driveway Access:	0
Intersection Related:	0
Non Intersection Urban:	1
In Alley:	0
Non Intersection Rural:	3
Ramp:	0
Unknown:	0
Total: 15	

Road Conditions	
Dry:	15
Wet:	0
Muddy:	0
Snowy:	0
Icy:	0
Slushy:	0
Foreign Material:	0
With Road Treatment:	0
Dry w/Icy Road Treatment:	0
Wet w/Icy Road Treatment:	0
Snowy w/Icy Road Treatment:	0
Icy w/Icy Road Treatment:	0
Slushy w/Icy Road Treatment:	0
Unknown:	0
Total: 15	

Mainline/Ramps/Frontage Rds	
Mainline:	15
Crossroad (Ramp A):	0
Frontage Rd:	0
Ramps	
B:	0
C:	0
D:	0
E:	0
F:	0
G:	0
H:	0
I:	0
J:	0
K:	0
T:	0
Intsx Frontage/Ramps	
M:	0
O:	0
N:	0
P:	0
HOV Lanes:	0
Ukwn:	0
Total: 15	

Accident Rates	
PDO: 0.53 MVMT Total:	0.66 MVMT
Injury: 0.13 MVMT	
Fatal: 0.00 100 MVMT	

ADT: 20700 WHI: -7.03 Length: 1.00 Coris File: tcoris2006.dbf

Vehicle Type	Veh 1	Veh 2	Veh 3
Passenger Car/Van:	11	8	1
Passenger Car/Van w/Trl:	0	0	0
Pickup Truck/Utility Van:	4	5	0
Pickup Truck/Utility Van w/Trl:	0	0	0
Truck 10k lbs or Less:	0	0	0
Trucks > 10k lbs/Bus > 15 People:	0	0	0
School Bus < 15 People:	0	0	0
Non School Bus < 15 People:	0	0	0
Motorhome:	0	0	0
Motorcycle:	0	0	0
Bicycle:	0	0	0
Motorized Bicycle:	0	0	0
Farm Equipment:	0	0	0
Hit and Run - Unknown:	0	0	0
Other:	0	0	0
Unknown:	0	0	0
Total:	15	13	1

Vehicle Movement	Veh 1	Veh 2	Veh 3
Going Straight:	9	3	0
Slowing:	0	1	0
Stopped in Traffic:	0	5	1
Making Right Turn:	1	0	0
Making Left Turn:	1	4	0
Making U-Turn:	0	0	0
Passing:	0	0	0
Backing:	0	0	0
Enter/Leave Parked Position:	0	0	0
Starting in Traffic:	3	0	0
Parked:	0	0	0
Changing Lanes:	1	0	0
Avoiding Object in Road:	0	0	0
Weaving:	0	0	0
Other:	0	0	0
Unknown:	0	0	0
Total:	15	13	1

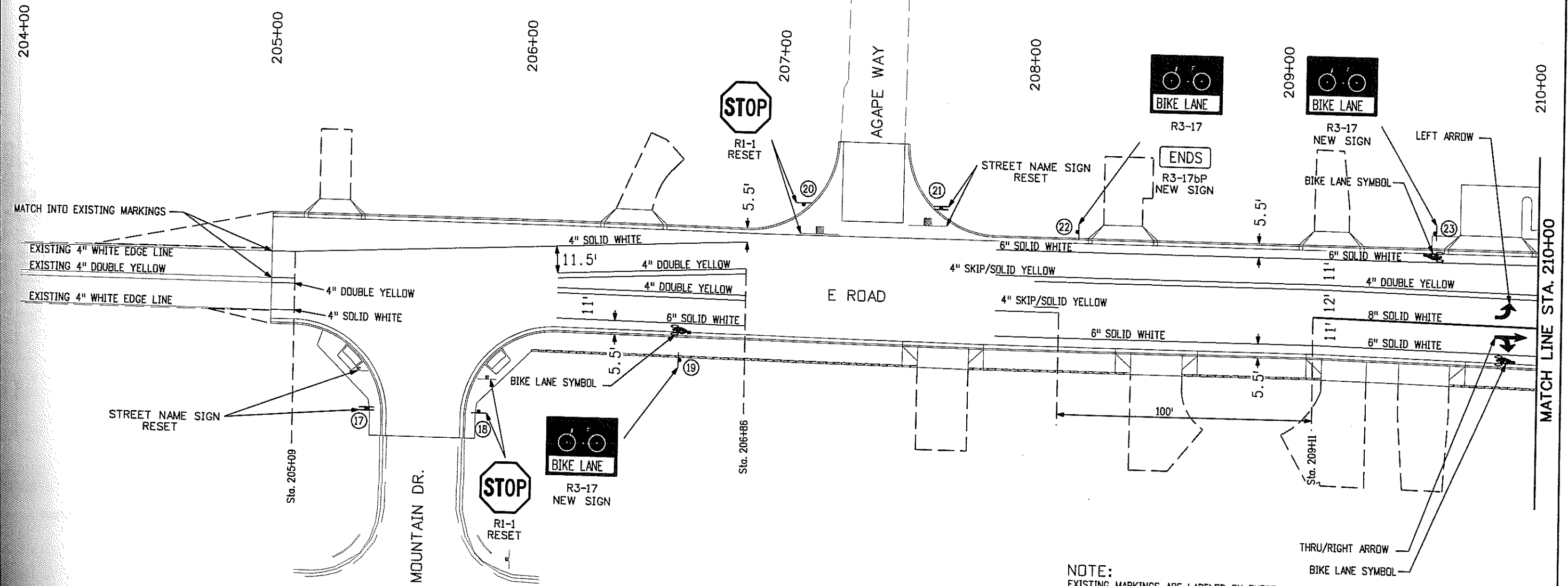
Contributing Factor	Veh 1	Veh 2	Veh 3
No Apparent Contributing Factor:	7	13	1
Asleep at the Wheel:	0	0	0
Illness:	0	0	0
Distracted by Passenger:	0	0	0
Driver Inexperience:	2	0	0
Driver Fatigue:	0	0	0
Driver Preoccupied:	4	0	0
Driver Unfamiliar with Area:	0	0	0
Driver Emotionally Upset:	2	0	0
Evading Law Enforcement Officer:	0	0	0
Physical Disability:	0	0	0
Unknown:	0	0	0
Total:	15	13	1

Direction	Veh 1	Veh 2	Veh 3
North:	4	4	1
Northeast:	0	0	0
East:	4	3	0
Southeast:	0	0	0
South:	4	5	0
Southwest:	0	0	0
West:	3	1	0
Northwest:	0	0	0
Unknown:	0	0	0
Total:	15	13	1

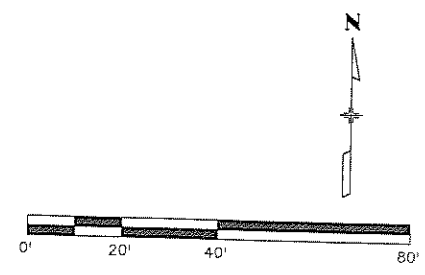
Condition of Driver	Veh 1	Veh 2	Veh 3
No Impairment Suspected:	14	13	1
Alcohol Involved:	0	0	0
RX Drugs or Medication Involved:	0	0	0
Illegal Drugs Involved:	0	0	0
Alcohol and Drugs Involved:	0	0	0
Driver/Pedestrian not Observed:	1	0	0
Unknown:	0	0	0
Total:	15	13	1

hwy	mp	date	time	sev	serial	location	road_desc	vehicles	contour	condition	lighting	weather	ramp	acctype	dir_1	vehicle_1	driver_1	factor_1	speed_1	veh_move_1		
141B	161.4	11/07/2006	1605	PDO	063361	ON	NON-INTE		2 STRAIGHT	DRY	DAYLIGHT	NONE	N	REAR-ENIN		PICKUP	TINO	IMPAIF	E 45	GOING STRAIGHT		
141B	161.41	08/21/2005	0116	PDO	053261	ON	NON-INTE		1 STRAIGHT	DRY	DARK-LIG	NONE	N	INVOLVIN		PASS	CAF	NO	IMPAIF	API 45	GOING STRAIGHT	
141B	161.45	03/10/2006	2345	INJ	063089	ON	AT INTER		2 STRAIGHT	DRY	DARK-LIG	NONE	N	BROADSIL		PASS	CAF	NO	IMPAIF	DRIVER IN 45	GOING STRAIGHT	
141B	161.45	07/24/2006	1612	PDO	063281	ON	AT INTER		2 STRAIGHT	DRY	DAYLIGHT	NONE	N	BROADSIL		PICKUP	TINO	IMPAIF	DRIVER P 35	GOING STRAIGHT		
141B	161.45	08/10/2006	0435	INJ	063247	ON	AT INTER		2 STRAIGHT	DRY	DARK-UNI	NONE	N	BROADSIL		PASS	CAF	NO	IMPAIF	DRIVER P 35	GOING STRAIGHT	
141B	161.45	02/02/2006	1905	PDO	063038	ON	AT INTER		2 STRAIGHT	DRY	DARK-LIG	NONE	N	REAR-ENIE		PICKUP	TINO	IMPAIF	NONE	API 40	STARTING IN TRAFFI	
141B	161.45	07/12/2006	0820	PDO	063220	ON	AT INTER		2 STRAIGHT	DRY	DAYLIGHT	NONE	N	REAR-ENIE		PASS	CAF	NO	IMPAIF	NONE	API 05	GOING STRAIGHT
141B	161.45	08/11/2006	1719	PDO	063256	ON	AT INTER		2 STRAIGHT	DRY	DAYLIGHT	NONE	N	REAR-ENIS		PASS	CAF	NOT	OBSI	DRIVER IN 10	GOING STRAIGHT	
141B	161.45	08/17/2006	1738	INJ	063257	ON	AT INTER		3 STRAIGHT	DRY	DAYLIGHT	NONE	N	REAR-ENIN		PASS	CAF	NO	IMPAIF	DRIVER P 10	STARTING IN TRAFFI	
141B	161.45	08/23/2006	0938	PDO	063268	ON	AT INTER		2 STRAIGHT	DRY	DAYLIGHT	NONE	N	REAR-ENIW		PASS	CAF	NO	IMPAIF	DRIVER E 05	MAKING RIGHT TURN	
141B	161.45	07/09/2006	2000	PDO	063220	ON	AT INTER		2 STRAIGHT	DRY	DAYLIGHT	NONE	N	APPROACN		PASS	CAF	NO	IMPAIF	DRIVER P 20	GOING STRAIGHT	
141B	161.46	05/05/2004	1544	PDO	043152	ON	NON-INTE		1 STRAIGHT	DRY	DAYLIGHT	WIND	N	INVOLVIN		PASS	CAF	NO	IMPAIF	NONE	API 45	GOING STRAIGHT
141B	161.5	06/23/2004	1955	PDO	043188	ON	AT INTER		2 STRAIGHT	DRY	DAWN OR	NONE	N	BROADSILW		PASS	CAF	NO	IMPAIF	NONE	API 10	MAKING LEFT TURN
141B	161.5	09/15/2005	1853	PDO	053284	ON	AT INTER		2 STRAIGHT	DRY	DAWN OR	NONE	N	BROADSILW		PASS	CAF	NO	IMPAIF	NONE	API 10	STARTING IN TRAFFI
141B	161.5	03/22/2006	1830	PDO	063118	ON	NON-INTE		2 STRAIGHT	DRY	DARK-LIG	NONE	N	OVERTAK S		PICKUP	TINO	IMPAIF	DRIVER P 15	CHANGING LANES		

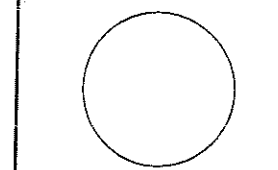
Proposed



NOTE:
 EXISTING MARKINGS ARE LABELED ON THESE PLANS WHERE THEY SHALL REMAIN IN-PLACE. ALL OTHER EXISTING PAVEMENT MARKINGS WILL BE REMOVED WITH THE ROADWAY WIDENING AND SURFACE OVERLAY.
 NEW MARKINGS SHALL BEGIN AT STOP LINES OR THE END OF RADIUS OF CURVES UNLESS OTHERWISE NOTED.



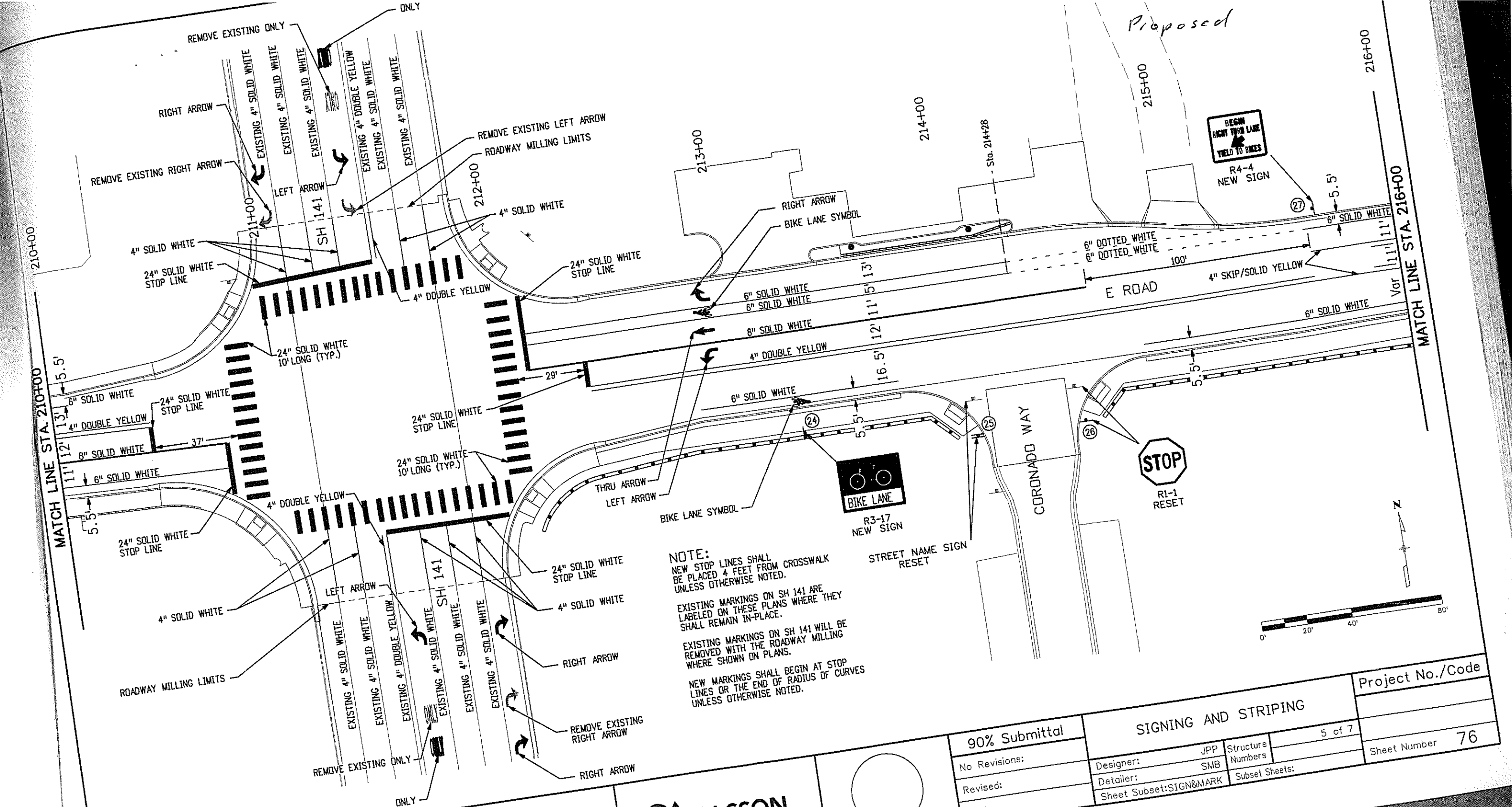
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 Scale: 1:40
 Information: Vert. Scale: As Noted
 Unit Leader Initials



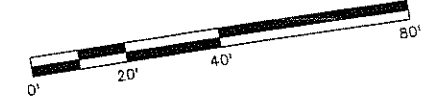
90% Submittal
No Revisions:
Revised:
Void:

SIGNING AND STRIPING	
Designer: JPP	Structure Numbers
Detailer: SMB	
Sheet Subset: SIGN&MARK	Sheet Number: 75

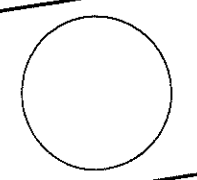
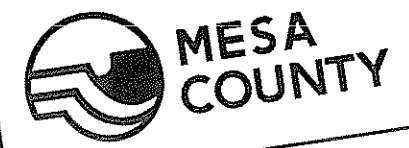
Project No./Code
Sheet Number: 75



NOTE:
 NEW STOP LINES SHALL BE PLACED 4 FEET FROM CROSSWALK UNLESS OTHERWISE NOTED.
 EXISTING MARKINGS ON SH 141 ARE LABELED ON THESE PLANS WHERE THEY SHALL REMAIN IN-PLACE.
 EXISTING MARKINGS ON SH 141 WILL BE REMOVED WITH THE ROADWAY MILLING WHERE SHOWN ON PLANS.
 NEW MARKINGS SHALL BEGIN AT STOP LINES OR THE END OF RADIUS OF CURVES UNLESS OTHERWISE NOTED.



Print Date: 9/23/2010
 File Name: 91500Sign&Stripe05.dgn
 Horiz. Scale: 1:40
 Unit Information



90% Submittal		SIGNING AND STRIPING		Project No./Code	
No Revisions:	Revised:	Designer: JPP	Structure Numbers	5 of 7	
Void:		Detailer: SMB	Subset Sheets:	Sheet Number 76	
Sheet Subset: SIGN&MARK					

X axis	Y axis	Road street	Location	Date	ADT	Locale	District	Road Class	Lanes	Days	Count_Type	Interval	dfile
718972.3	4328543	31 1/2 ROAD	450 FEET NORTH OF E RD.	10/22/2007	3982	Urban	Residential	Collector	2	2	Total Flow	Single	2007-427.csv
718182.6	4328189	31 ROAD	650 FEET SOUTH OF E RD.	10/22/2007	1220	Urban	Residential	Local	2	2	Total Flow	Single	2007-424.csv
720576.4	4328565	32 1/2 ROAD	385 FEET NORTH OF E RD.	10/22/2007	1523	Rural	Residential	Collector	2	2	Total Flow	Single	2007-432.csv
721398.3	4328309	33 ROAD	600 FEET SOUTH OF E RD.	10/22/2007	1868	Urban	Residential	Collector	2	2	Total Flow	Single	2007-437.csv
721398.6	4328580	33 ROAD	350 FEET NORTH OF E RD.	10/22/2007	3004	Urban	Residential	Collector	2	2	Total Flow	Single	2007-436.csv
718124.1	4328385	E ROAD	175 FEET WEST OF 31 RD.	10/22/2007	5823	Urban	Residential	Collector	2	2	Total Flow	Single	2007-423.csv
718298.3	4328390	E ROAD	400 FEET EAST OF 31 RD.	10/22/2007	6530	Urban	Residential	Collector	2	2	Total Flow	Single	2007-425.csv
718856.8	4328403	E ROAD	390 FEET WEST OF 31 1/2 RD.	10/22/2007	6527	Urban	Residential	Collector	2	2	Total Flow	Single	2007-426.csv
719115.6	4328408	E ROAD	460 FEET EAST OF 31 1/2 RD.	10/22/2007	5340	Rural	Residential	Collector	2	2	Total Flow	Single	2007-428.csv
719684.1	4328423	E ROAD	300 FEET WEST OF 32 RD.	10/22/2007	4881	Urban	Residential	Collector	2	2	Total Flow	Single	2007-429.csv
719905.8	4328429	E ROAD	425 FEET EAST OF 32 RD.	10/22/2007	5794	Urban	Residential	Collector	2	2	Total Flow	Single	2007-430.csv
720455.8	4328443	E ROAD	400 FEET WEST OF 32 1/2 RD.	10/22/2007	4115	Urban	Residential	Collector	2	2	Total Flow	Single	2007-438.csv
720711.9	4328450	E ROAD	440 FEET EAST OF 32 1/2 RD.	10/22/2007	3176	Urban	Residential	Collector	2	2	Total Flow	Single	2007-439.csv
721349.5	4328469	E ROAD	125 FEET WEST OF 33 RD.	10/22/2007	1392	Urban	Residential	Collector	2	2	Total Flow	Single	2007-435.csv

Traffic Information for Highway 141b
From RePoint 155 To RePoint 162

Route	Ref Point	End Ref Point	Start Point Description	Annual Average Daily Traffic	AADT Year	AADT Derivation	AADT Single Trucks	AADT Comb. Trucks	Percent Trucks	20 Year Factor	Design Hour Vol (% of AADT)	Daily Vehicle Miles Traveled
141B	156.746	158.931	ON SH 141 N/O SH 50 N JCT	7,300	2006	Actual	300	360	9.00%	1.15	8	16,031
141B	158.931	159.190	ON SH 141 N/O B 1/2 RD	10,700	2006	Factor	220	340	5.20%	1.25	8	2,739
141B	159.190	159.338	ON SH 141 N/O C RD	12,800	2006	Actual	340	420	5.90%	1.25	8	1,882
141B	159.338	160.442	ON SH 141 S/O D RD, CLIFTON	15,800	2006	Factor	490	430	5.80%	1.25	8	17,285
141B	160.442	160.953	ON SH 141 N/O COLORADO AVE, D 1/4 RD, CLIFTON	16,300	2006	Factor	580	320	5.50%	1.33	8	8,329
141B	160.953	161.448	ON SH 141 N/O D 1/2 RD, CLIFTON	17,900	2006	Factor	710	380	6.10%	1.27	8	9,093
141B	161.448	161.940	ON SH 141 N/O E RD, CLIFTON	20,700	2006	Factor	770	430	5.80%	1.34	8	10,184
141B	161.940	161.999	ON SH 141 SE/O SH 70 BUS RT, CLIFTON	21,600	2006	Actual	810	440	5.80%	1.55	8	6,934

Area Type:	Other
Cycle Length: 60	
Activated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NRTL and 6:SRTL, Start of Green	
Natural Cycle: 60	
Control Type: Prelimed	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 18.8	
Intersection Capacity Utilization 64.1%	
Analysis Period (min): 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown its maximum after two cycles.	

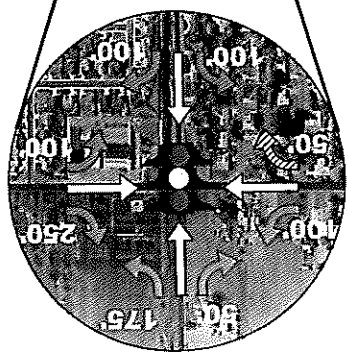
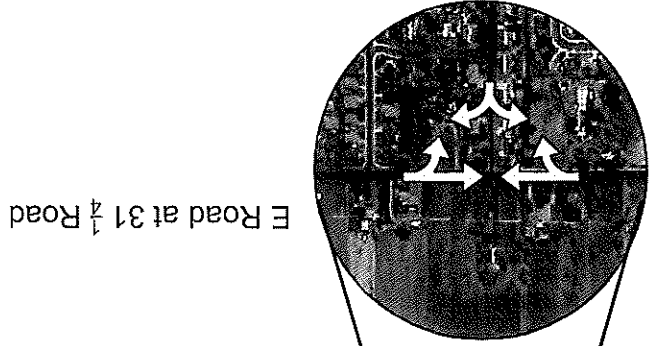
Splits and Phases: 5: E Road & 32 Road

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	55	134	72	50	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Storage Lanes	0	0	0	0	0	0	0	0	0	0	0	0
Taper Length (ft)	25	25	25	25	25	25	25	25	25	25	25	25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fit	0.963	0.990	0.991	0.930	0.850	0.850	0.950	0.950	0.950	0.950	0.950	0.850
Fit Protected	0	0	0	0	0	0	0	0	0	0	0	0
Satd. Flow (prot)	1742	1684	1684	1736	1736	1736	1553	1553	1553	1553	1553	1553
Fit Permitted	0.854	0.879	0.879	0.246	0.246	0.246	0.271	0.271	0.271	0.271	0.271	0.271
Satd. Flow (perm)	1502	1493	1493	0	0	0	495	495	495	495	495	495
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	31	89	89	40	40	40	45	45	45	45	45	45
Link Speed (mph)	40	40	40	40	40	40	45	45	45	45	45	45
Link Distance (ft)	1030	810	810	1680	1680	1680	2210	2210	2210	2210	2210	2210
Travel Time (s)	17.6	13.8	13.8	25.5	25.5	25.5	33.5	33.5	33.5	33.5	33.5	33.5
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	57	138	138	74	52	80	143	143	143	143	143	143
Shared Lane Traffic (%)	0	269	269	0	0	275	0	0	0	0	0	0
Lane Group Flow (vph)	Perm	Perm	Perm	Perm	Perm	Perm	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt
Turn Type	4	4	4	8	8	8	2	2	2	2	2	2
Protected Phases	22.0	22.0	22.0	22.0	22.0	22.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	36.7%	36.7%	36.7%	36.7%	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Split (%)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Yellow Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lost Time Adjust (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Total Lost Time (s)	Lead/Lag	Lead/Lag	Lead/Lag	Lead/Lag	Lead/Lag	Lead/Lag	Lead/Lag	Lead/Lag	Lead/Lag	Lead/Lag	Lead/Lag	Lead/Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Act Effct Green (s)	16.0	16.0	16.0	16.0	16.0	16.0	28.0	28.0	28.0	28.0	28.0	28.0
Actuated g/C Ratio	0.27	0.27	0.27	0.27	0.27	0.27	0.38	0.32	0.32	0.32	0.32	0.37
v/c Ratio	0.64	0.64	0.64	0.59	0.59	0.59	0.25	0.61	0.12	0.53	0.70	0.10
Control Delay	25.2	18.9	18.9	10.2	10.2	10.2	5.3	5.3	5.3	5.3	5.3	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.2	18.9	18.9	10.2	10.2	10.2	5.3	5.3	5.3	5.3	5.3	4.6
LOS	C	B	B	C	C	C	A	A	A	A	A	A
Approach Delay	25.2	18.9	18.9	18.2	18.2	18.2	17.8	17.8	17.8	17.8	17.8	17.8
Approach LOS	C	B	B	C	C	C	B	B	B	B	B	B
Queue Length 50th (ft)	75	56	56	10	10	10	35	35	35	35	35	35
Queue Length 95th (ft)	#150	125	125	25	25	25	66	66	66	66	66	66
Internal Link Dist (ft)	950	730	730	1600	1600	1600	2130	2130	2130	2130	2130	2130
Turn Bay Length (ft)	150	200	200	100	100	100	200	200	200	200	200	200
Base Capacity (vph)	423	463	463	258	258	258	537	537	537	537	537	537
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillover Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0

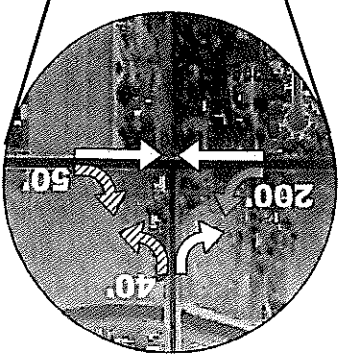
E Road Corridor Study



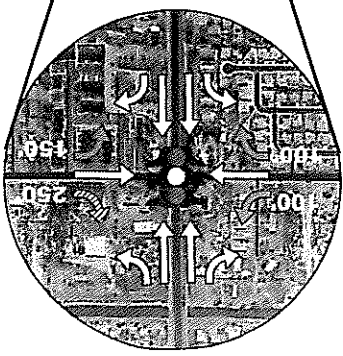
- Legend**
- Existing Lane
 - Proposed Lane
 - ↔ Warranted Lane (not constructed at this time)
 - ⊥ Stop Controlled Approach
 - ⚙ Signalized Intersection



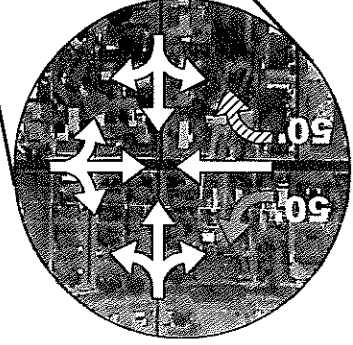
E Road at 31 Road



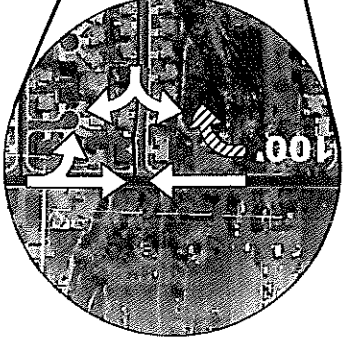
E Road at 31 1/2 Road



E Road at 32 Road (CO 141)



E Road at Meadowlark Way



E Road at Forelle Street