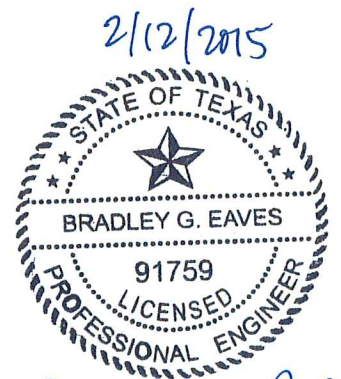


Speed Study

Grand Parkway Between US 59 And South Fry Road

Prepared for:



Prepared by:

Bradley G. Eaves

TRAFFIC ENGINEERS, INC.

INNOVATIVE TRANSPORTATION SOLUTIONS

Texas Registration #F-3158

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Introduction

The segment of Grand Parkway (SH 99) between US 59 and south of South Fry Road (also known as Grand Parkway Segment D) is located in northeast Fort Bend County, Texas. The segment is currently operated by Fort Bend County Toll Road Authority (FBCTRA) as a toll road with a series of newly opened tolled overpasses. Motorists also have the option to travel the corridor without paying tolls by exiting prior to the tolled overpasses. New regulatory and advisory speed limited signs were installed to accommodate the tolled overpasses. However, previously installed speed limit signs still exist along the non-tolled portion of the main lanes/frontage roads. The inconsistency of the speed zones may cause confusion to drivers and raise safety issues. The purpose of this study is to establish consistent speed zones on the tolled/non-tolled main lanes, ramps and adjacent frontage roads with proper speed transitions and provide speed signage schematics.

Existing Conditions

The study segment of the Grand Parkway between US 59 and south of South Fry Road is located in northeast Fort Bend County, Texas, as shown in **Figure 1**. The segment is operated by FBCTRA as a toll road with a series of tolled overpasses. Motorists who do not want to pay to use the tolled facilities could still travel along the Grand Parkway and have the option to exit prior to the overpasses to avoid tolls. Entrance ramps are also constructed prior to the overpasses to provide access to the tolled facilities.

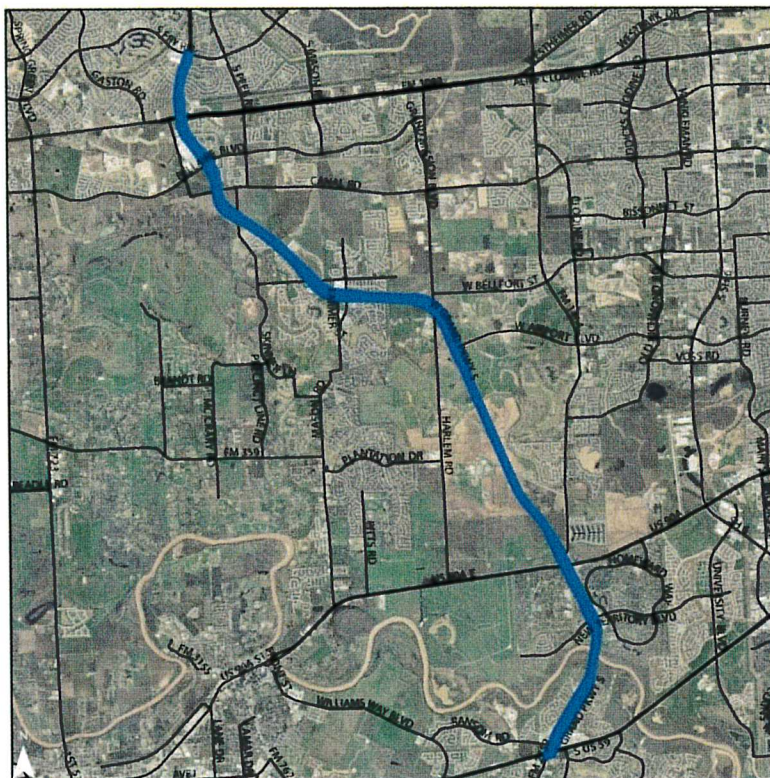


FIGURE 1 PROJECT LOCATION

The recently opened tolled overpasses provide grade separations at the cross streets. Motorists who choose to use the tolled facilities do not need to pass through traffic control devices at the major intersections. The tolled overpasses are located at Riverpark Drive, New Territory Boulevard, Sandhill Drive/US 90A/FM 1464, West Airport Boulevard/Harlem Road, South Mason Road/West Bellfort Street, Bellaire Boulevard and Westpark Tollway. All overpasses provide two separated one-way, two-lane cross sections with left and right shoulders at various widths.

The existing land uses along Grand Parkway include commercial, residential, agricultural and undeveloped properties. The development driveways which provide direct access to the frontage roads are concentrated immediately to the north of US 59 and between South Mason Road and Westpark Tollway.

Entrance and exit ramps are provided at various locations along the tolled/non-tolled freeway sections. Generally, an exit ramp diverging from the main lanes will intersect the cross streets and continue beyond the intersection until it merges into the main lanes as an entrance ramp. For the purpose of speed zone design, the service roads in the area of the major intersections are considered as frontage roads as they operate with the frontage road characteristics. Only the segments directly merging and diverging to/from the main lanes are considered as entrance and exit ramps. Typical frontage roads do not exist along the main lanes in the areas where there are no cross streets. The existing frontage roads typically provide a two-lane, one-way cross-section with curbs and gutters.

Regulatory and advisory speed limit signs were posted on the newly constructed tolled overpasses. The posted speed limit on the overpasses is 65 mph and the advisory speed limit at the exit ramps is 45 mph. Posted speed limit signs still exist along the pre-existing segments of Grand Parkway. The posted speed limits on the non-tolled segment are currently 60 mph prior to the tolled overpasses. Within the section of Grand Parkway Segment D with tolled overpasses, a few existing speed limit signs are not consistent with the remainder of the corridor where speed limit signs have been updated.

Speed data were collected from two sources. On most main lane segments, average speed was obtained from the data collected at the toll plazas. On the frontage roads and main lanes where toll plazas are not located, field recorded speed data was collected to capture the 85th percentile speed (shown in **Appendix A**) at free flow. The speed data at the study locations are summarized in **Table 1**. As indicated in **Table 1**, the average speeds collected at the toll plazas range between 59 mph to 70 mph. The 85th percentile speeds captured at the freeway main lanes south of West Airport Boulevard are 72 (northbound) and 73 (southbound) mph. The 85th percentile speeds on the frontage roads varies by locations from 45 mph to 65 mph.

Crash data was provided by Houston-Galveston Area Council (HGAC) for the study area. A crash density map is included in **Appendix B**.

Strip maps (see **Appendix C**) were developed to document the following existing conditions in the study area:

- Roadway cross sections
- Existing land uses
- Existing regulatory and advisory speed limit signs
- Locations of the toll plazas and field speed study spots
- Speed data

TABLE 1 SPEED DATA

Locations	Type	Sources	Speed (mph)
Riverpark Toll Plaza NB	Main Lane (Avg. Speed)	Toll Plaza	61
Riverpark Toll Plaza SB	Main Lane (Avg. Speed)	Toll Plaza	65
New Territory Toll Plaza NB	Main Lane(Avg. Speed)	Toll Plaza	69
New Territory Toll Plaza SB	Main Lane (Avg. Speed)	Toll Plaza	67
US 90 A Toll Plaza NB	Main Lane(Avg. Speed)	Toll Plaza	69
US 90 A Toll Plaza SB	Main Lane(Avg. Speed)	Toll Plaza	70
West Airport Toll Plaza NB	Main Lane(Avg. Speed)	Toll Plaza	69
West Airport Toll Plaza SB	Main Lane(Avg. Speed)	Toll Plaza	70
West Bellfort Toll Plaza NB	Main Lane(Avg. Speed)	Toll Plaza	68
West Bellfort Toll Plaza SB	Main Lane(Avg. Speed)	Toll Plaza	68
Bellaire Toll Plaza NB	Main Lane(Avg. Speed)	Toll Plaza	65
Bellaire Toll Plaza SB	Main Lane(Avg. Speed)	Toll Plaza	59
Westpark Toll Plaza NB	Main Lane(Avg. Speed)	Toll Plaza	67
Westpark Toll Plaza SB	Main Lane(Avg. Speed)	Toll Plaza	67
South of Airport Blvd NB	Main Lane (85 th Percentile Speed)	Field	72
South of Airport Blvd SB	Main Lane (85 th Percentile Speed)	Field	73
South of W Riverpark Dr NB	Frontage Rd (85 th Percentile Speed)	Field	58
North of River Falls Dr SB	Frontage Rd (85 th Percentile Speed)	Field	63
South of US 90A NB	Frontage Rd (85 th Percentile Speed)	Field	45
South of US 90A SB	Frontage Rd (85 th Percentile Speed)	Field	45
North of W Airport Blvd NB	Frontage Rd (85 th Percentile Speed)	Field	65
North of W Airport Blvd SB	Frontage Rd (85 th Percentile Speed)	Field	61
South of W Bellfort St NB	Frontage Rd (85 th Percentile Speed)	Field	52
North of Long Meadow Farms Pkwy SB	Frontage Rd (85 th Percentile Speed)	Field	50
South of Westpark Tollway NB	Frontage Rd (85 th Percentile Speed)	Field	59
North of Bellaire Blvd SB	Frontage Rd (85 th Percentile Speed)	Field	53
South of S Fry Rd NB	Frontage Rd (85 th Percentile Speed)	Field	58

Speed Zone Designs

The speed zones in the study area are designed with consideration of the roadway geometrics, speed data, speed transitions, land uses and additional roadway characteristics. The studied main lane segments are designed with two speed zones: the zone between the south of West Riverpark Drive and 600 feet north of Long Prairie Trace is designed with a speed limit of 65 mph and the zone between 600 feet north of Long Prairie Trace and south of South Fry Road is designed with a speed limit of 60 mph. The speed limits on the frontage roads are proposed to be 45 mph. The advisory speed limit on the exit ramps are suggested to remain at 45 mph.

The Grand Parkway main lanes between West Riverpark Drive and West Belfort Street generally provide a typical freeway section with adequate shoulder widths and pavement in good condition. A speed zone with a posted speed limit of 65 is appropriate for the main lane operation. The only exception in this zone is the segment between the north of FM 1464 and West Airport Boulevard, where the roadway only provides narrow shoulders on the right side. However, this segment currently runs through an undeveloped area adjacent to the State Prison Farm. No on/off ramps or cross streets exist along the segment and the traffic flow is uninterrupted. The existing field captured 85th percentile speed of 72 (northbound) and 73 (southbound) mph at this location also suggests traffic should operate normally and safe at a posted speed of 65 mph.

Approximately 0.8 miles north of Long Prairie Trace, a median opening for future Peek Road is located along Grand Parkway, as shown in **Figure 2**. The segments adjacent to the future Peek Road median opening provide a two-lane, one-way cross section with curbs and gutters. Neither left nor right shoulders exist along this segment. For the safety considerations, a speed zone with a posted speed limit of 60 mph is designed to begin immediately north of Long Prairie Trace to accommodate the freeway operations on a segment typically designed for frontage roads. In addition, considering the motorists' option to avoid tolls by exiting prior to the overpasses, the "on and off" operations are expected along Grand Parkway. It is necessary to provide a consistent speed limits to meet drivers' perceptions of speed while exiting and entering the freeway at multiple locations. Therefore, the speed zone of 60 mph beginning from 600 feet north of Long Prairie Trace were designed to continue south of South Fry Road in order to avoid constantly changing speed limits between Bellaire Boulevard and South Fry Road.

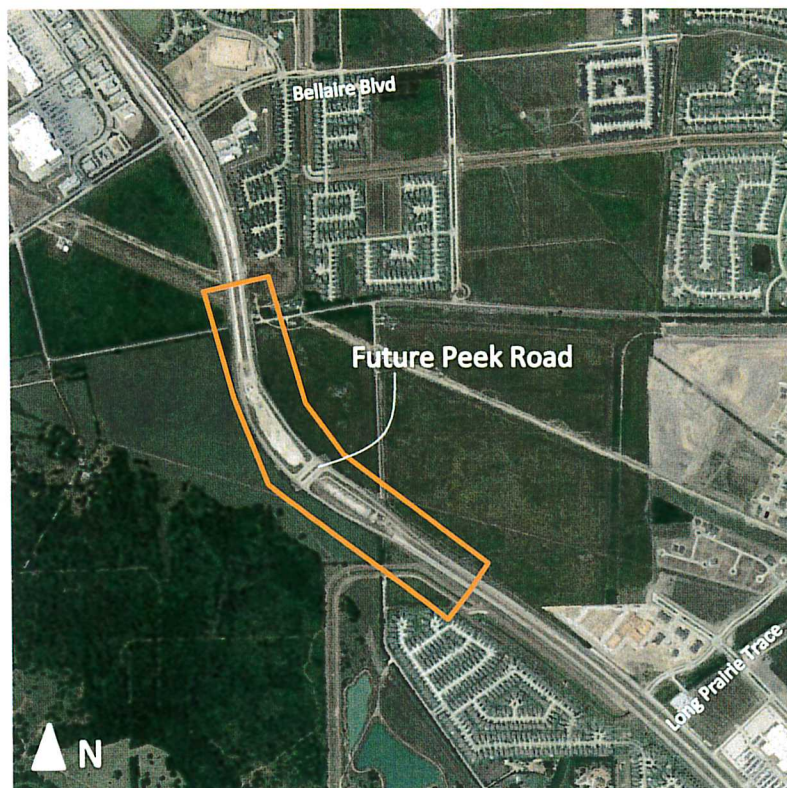


FIGURE 2 FUTURE PEEK ROAD AT GRAND PARKWAY

With the opening of the tolled overpasses on Grand Parkway, the original segments which intersect with the cross streets are operating as freeway frontage roads. To safely accommodate driveway access, a speed limit of 45 is proposed on the frontage roads. No direct driveway access currently exists at the frontage roads in the area of Harlem Road and West Airport Boulevard. However, with the development of the Master Planned Community of Aliana at West Airport Boulevard, developments between West Airport Boulevard and South Mason Road are expected in the future. A consistent speed limit for the entire frontage road system is recommended for safety considerations. The existing advisory speed limit of 45 mph at the exit ramps is also applicable and consistent with the proposed speed limits of 45 mph on the frontage roads.

A schematic map showing the locations of the proposed regulatory and advisory speed limit signs is included in **Appendix D**.

Summary of Findings and Recommendations

The segment of Grand Parkway between US 59 and South Fry Road is located in northeast Fort Bend County, Texas. The segment is currently operated by FBCTRA as a toll road with a series of newly opened tolled overpasses. Motorists have the option to travel without paying tolls by exiting prior to the tolled overpasses.

New regulatory and advisory speed limit signs were installed to accommodate the tolled overpasses. However, previous installed speed limit signs still exist along the non-tolled segment of the freeway/frontage roads. The inconsistency of the speed zones may cause confusion to drivers and raise safety issues. The purpose of this study is to establish consistent speed zones on the tolled/non-tolled main lanes, ramps and adjacent frontage roads.

To accommodate the tolled/non-tolled facility, speed zones in the study area were designed in consideration of the roadway geometrics, speed data, speed transitions, land uses and additional roadway characteristics. The following speed zones are proposed:

- From south of West Riverpark Drive to 600 feet north of Long Prairie Trace, a speed limit of 65 mph is recommended.
- From 600 feet north of Long Prairie Trace to south of South Fry Road, a speed limit of 60 mph is recommended.
- The speed limit on ramp and frontage road segments are recommended to be posted at 45 mph.
- The advisory speed limit for the exit ramps are recommended to remain at 45 mph.

A schematic map showing the locations of the proposed regulatory and advisory speed limit signs is also provided.

Appendices

- A. Field Speed Data
- B. Crash Density Map
- C. Strip Map
- D. Schematic Map - Speed Limit Signs

Appendix A – Field Speed Data

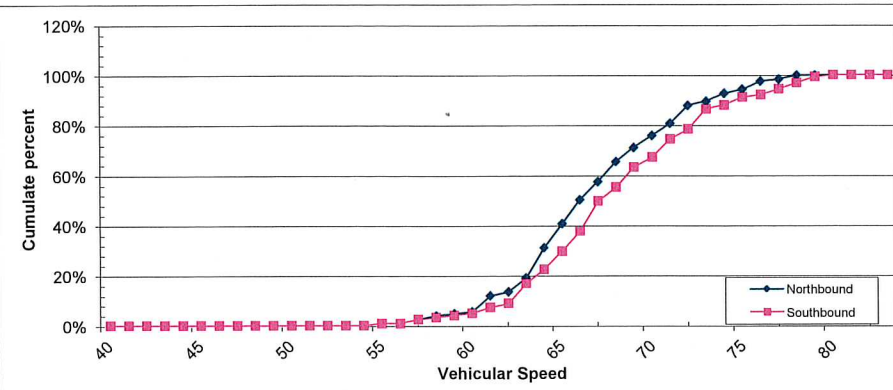
Spot Speed Study
NB/SB SH 99 Mainlanes south of W Airport

Northbound 85% speed is: 72 MPH
Southbound 85% speed is: 73 MPH

Date: 12/10/2014
Posted Speed: 60 MPH

Begin Time: 9:00 AM
End Time: 10:00 AM

Speed	Northbound	Southbound
40	0	0
41	0	0
42	0	0
43	0	0
44	0	0
45	0	0
46	0	0
47	0	0
48	0	0
49	0	0
50	0	0
51	0	0
52	0	0
53	0	0
54	0	0
55	1	1
56	0	0
57	2	2
58	2	1
59	1	1
60	1	1
61	8	3
62	2	2
63	7	10
64	15	7
65	12	9
66	12	10
67	9	15
68	10	7
69	7	10
70	6	5
71	6	9
72	9	5
73	2	10
74	4	2
75	2	4
76	4	1
77	1	3
78	2	3
79	0	3
80	0	1
81	0	0
82	0	0
83	0	0
84	0	0
85	0	0
Total:	125	125



Northbound					Southbound						
Cumulative		Cumulative		Cumulative		Cumulative		Cumulative			
Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed		
40	0	0%	63	24	19%	40	0	0%	63	21	16.80%
41	0	0%	64	39	31%	41	0	0%	64	28	22.40%
42	0	0%	65	51	41%	42	0	0%	65	37	29.60%
43	0	0%	66	63	50%	43	0	0%	66	47	37.60%
44	0	0%	67	72	58%	44	0	0%	67	62	49.60%
45	0	0%	68	82	66%	45	0	0%	68	69	55.20%
46	0	0%	69	89	71%	46	0	0%	69	79	63.20%
47	0	0%	70	95	76%	47	0	0%	70	84	67.20%
48	0	0%	71	101	81%	48	0	0%	71	93	74.40%
49	0	0%	72	110	88%	49	0	0%	72	98	78.40%
50	0	0%	73	112	90%	50	0	0%	73	108	86.40%
51	0	0%	74	116	93%	51	0	0%	74	110	88.00%
52	0	0%	75	118	94%	52	0	0%	75	114	91.20%
53	0	0%	76	122	98%	53	0	0%	76	115	92.00%
54	0	0%	77	123	98%	54	0	0%	77	118	94.40%
55	1	1%	78	125	100%	55	1	1%	78	121	96.80%
56	1	1%	79	125	100%	56	1	1%	79	124	99.20%
57	3	2%	80	125	100%	57	3	2%	80	125	100.00%
58	5	4%	81	125	100%	58	4	3%	81	125	100.00%
59	6	5%	82	125	100%	59	5	4%	82	125	100.00%
60	7	6%	83	125	100%	60	6	5%	83	125	100.00%
61	15	12%	84	125	100%	61	9	7%	84	125	100.00%
62	17	14%	85	125	100%	62	11	9%	85	125	100.00%

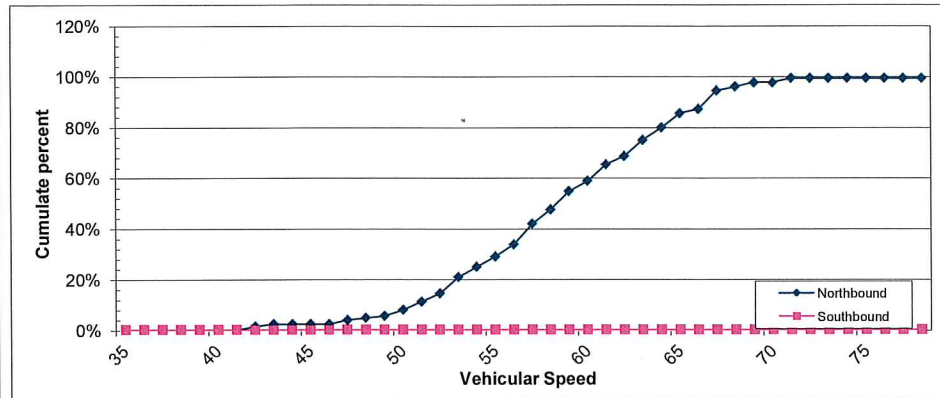
Spot Speed Study SH 99 NBFR north of W Airport

Northbound 85% speed is: **65 MPH**
Southbound 85% speed is: **#DIV/0!**

Date: 12/9/2014
Posted Speed:

Begin Time: 1:00 PM
End Time: 2:30 PM

Speed	Northbound	Southbound
35	0	0
36	0	0
37	0	0
38	0	0
39	0	0
40	0	0
41	0	0
42	2	0
43	1	0
44	0	0
45	0	0
46	0	0
47	2	0
48	1	0
49	1	0
50	3	0
51	4	0
52	4	0
53	8	0
54	5	0
55	5	0
56	6	0
57	10	0
58	7	0
59	9	0
60	5	0
61	8	0
62	4	0
63	8	0
64	6	0
65	7	0
66	2	0
67	9	0
68	2	0
69	2	0
70	0	0
71	2	0
72	0	0
73	0	0
74	0	0
75	0	0
76	0	0
77	0	0
78	0	0
79	0	0
>80	1	0
Total:	124	0



	Northbound				Southbound						
	Cumulative			Cumulative		Cumulative			Cumulative		
	Total of Vehicles Surveyed	Percent of Vehicles Surveyed		Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed		Total of Vehicles Surveyed	Percent of Vehicles Surveyed	
35	0	0%	58	59	48%	35	0	#DIV/0!	58	0	#DIV/0!
36	0	0%	59	68	55%	36	0	#DIV/0!	59	0	#DIV/0!
37	0	0%	60	73	59%	37	0	#DIV/0!	60	0	#DIV/0!
38	0	0%	61	81	65%	38	0	#DIV/0!	61	0	#DIV/0!
39	0	0%	62	85	69%	39	0	#DIV/0!	62	0	#DIV/0!
40	0	0%	63	93	75%	40	0	#DIV/0!	63	0	#DIV/0!
41	0	0%	64	99	80%	41	0	#DIV/0!	64	0	#DIV/0!
42	2	2%	65	106	85%	42	0	#DIV/0!	65	0	#DIV/0!
43	3	2%	66	108	87%	43	0	#DIV/0!	66	0	#DIV/0!
44	3	2%	67	117	94%	44	0	#DIV/0!	67	0	#DIV/0!
45	3	2%	68	119	96%	45	0	#DIV/0!	68	0	#DIV/0!
46	3	2%	69	121	98%	46	0	#DIV/0!	69	0	#DIV/0!
47	5	4%	70	121	98%	47	0	#DIV/0!	70	0	#DIV/0!
48	6	5%	71	123	99%	48	0	#DIV/0!	71	0	#DIV/0!
49	7	6%	72	123	99%	49	0	#DIV/0!	72	0	#DIV/0!
50	10	8%	73	123	99%	50	0	#DIV/0!	73	0	#DIV/0!
51	14	11%	74	123	99%	51	0	#DIV/0!	74	0	#DIV/0!
52	18	15%	75	123	99%	52	0	#DIV/0!	75	0	#DIV/0!
53	26	21%	76	123	99%	53	0	#DIV/0!	76	0	#DIV/0!
54	31	25%	77	123	99%	54	0	#DIV/0!	77	0	#DIV/0!
55	36	29%	78	123	99%	55	0	#DIV/0!	78	0	#DIV/0!
56	42	34%	79	123	99%	56	0	#DIV/0!	79	0	#DIV/0!
57	52	42%	>80	124	100%	57	0	#DIV/0!	>80	0	#DIV/0!

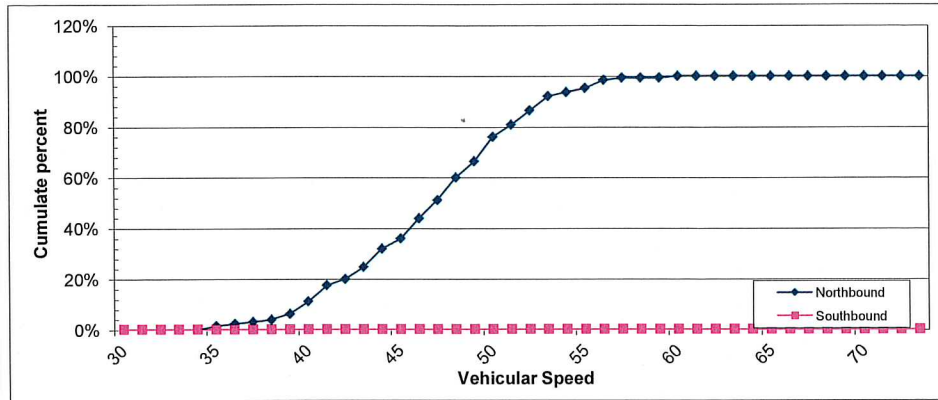
Spot Speed Study SH 99 NBRF south of Belfort

Northbound 85% speed is: **52 MPH**
 Southbound 85% speed is: **#DIV/0!**

Date: 12/9/2014
 Posted Speed:

Begin Time: 1:00 PM
 End Time: 3:00 PM

Speed	Northbound	Southbound
30	0	0
31	0	0
32	0	0
33	0	0
34	0	0
35	2	0
36	1	0
37	1	0
38	1	0
39	3	0
40	6	0
41	8	0
42	3	0
43	6	0
44	9	0
45	5	0
46	10	0
47	9	0
48	11	0
49	8	0
50	12	0
51	6	0
52	7	0
53	7	0
54	2	0
55	2	0
56	4	0
57	1	0
58	0	0
59	0	0
60	1	0
61	0	0
62	0	0
63	0	0
64	0	0
65	0	0
66	0	0
67	0	0
68	0	0
69	0	0
70	0	0
71	0	0
72	0	0
73	0	0
74	0	0
75	0	0
Total:	125	0



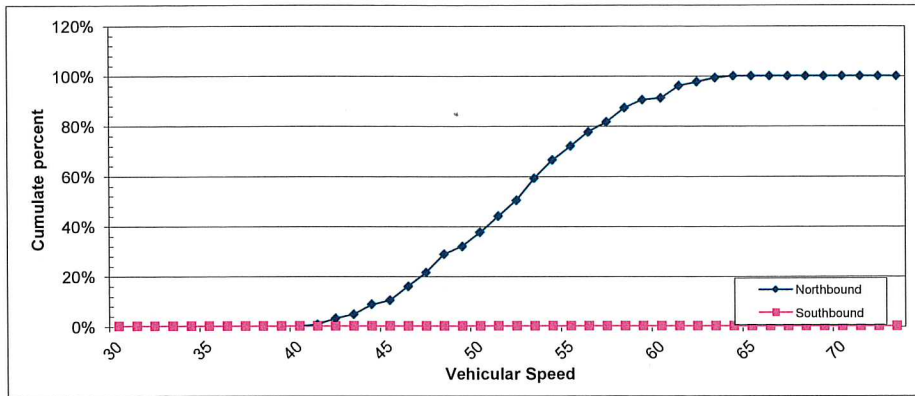
Northbound					Southbound						
Cumulative		Cumulative		Cumulative		Cumulative		Cumulative			
Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed		
30	0	0%	53	115	92%	30	0	#DIV/0!	53	0	#DIV/0!
31	0	0%	54	117	94%	31	0	#DIV/0!	54	0	#DIV/0!
32	0	0%	55	119	95%	32	0	#DIV/0!	55	0	#DIV/0!
33	0	0%	56	123	98%	33	0	#DIV/0!	56	0	#DIV/0!
34	0	0%	57	124	99%	34	0	#DIV/0!	57	0	#DIV/0!
35	2	2%	58	124	99%	35	0	#DIV/0!	58	0	#DIV/0!
36	3	2%	59	124	99%	36	0	#DIV/0!	59	0	#DIV/0!
37	4	3%	60	125	100%	37	0	#DIV/0!	60	0	#DIV/0!
38	5	4%	61	125	100%	38	0	#DIV/0!	61	0	#DIV/0!
39	8	6%	62	125	100%	39	0	#DIV/0!	62	0	#DIV/0!
40	14	11%	63	125	100%	40	0	#DIV/0!	63	0	#DIV/0!
41	22	18%	64	125	100%	41	0	#DIV/0!	64	0	#DIV/0!
42	25	20%	65	125	100%	42	0	#DIV/0!	65	0	#DIV/0!
43	31	25%	66	125	100%	43	0	#DIV/0!	66	0	#DIV/0!
44	40	32%	67	125	100%	44	0	#DIV/0!	67	0	#DIV/0!
45	45	36%	68	125	100%	45	0	#DIV/0!	68	0	#DIV/0!
46	55	44%	69	125	100%	46	0	#DIV/0!	69	0	#DIV/0!
47	64	51%	70	125	100%	47	0	#DIV/0!	70	0	#DIV/0!
48	75	60%	71	125	100%	48	0	#DIV/0!	71	0	#DIV/0!
49	83	66%	72	125	100%	49	0	#DIV/0!	72	0	#DIV/0!
50	95	76%	73	125	100%	50	0	#DIV/0!	73	0	#DIV/0!
51	101	81%	74	125	100%	51	0	#DIV/0!	74	0	#DIV/0!
52	108	86%	75	125	100%	52	0	#DIV/0!	75	0	#DIV/0!

**Spot Speed Study
SH 99 NBRF south of Fry Rd**

Northbound 85% speed is: **58 MPH**
 Southbound 85% speed is: **#DIV/0!**

Date: 12/10/2014 Begin Time: 10:00 AM
 Posted Speed: 45 MPH End Time: 11:00 AM

Speed	Northbound	Southbound
30	0	0
31	0	0
32	0	0
33	0	0
34	0	0
35	0	0
36	0	0
37	0	0
38	0	0
39	0	0
40	0	0
41	1	0
42	3	0
43	2	0
44	5	0
45	2	0
46	7	0
47	7	0
48	9	0
49	4	0
50	7	0
51	8	0
52	8	0
53	11	0
54	9	0
55	7	0
56	7	0
57	5	0
58	7	0
59	4	0
60	1	0
61	6	0
62	2	0
63	2	0
64	1	0
65	0	0
66	0	0
67	0	0
68	0	0
69	0	0
70	0	0
71	0	0
72	0	0
73	0	0
74	0	0
75	0	0
Total:	125	0



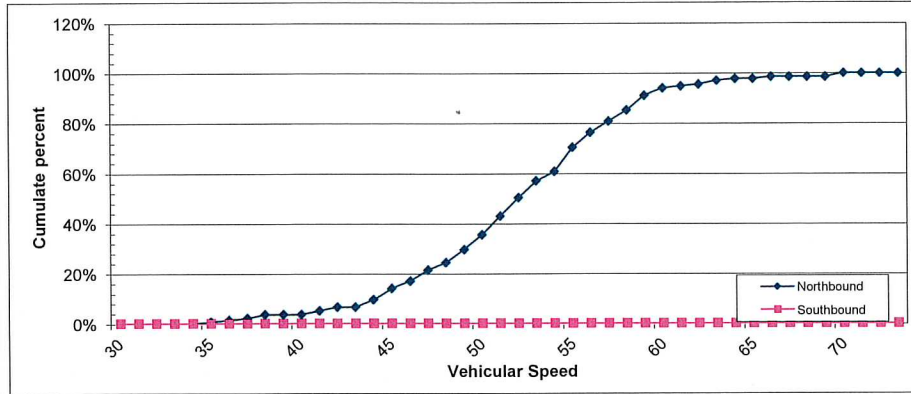
	Northbound				Southbound			
	Cumulative		Cumulative		Cumulative		Cumulative	
	Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed
30	0	0%	53	74	59%	30	0	#DIV/0!
31	0	0%	54	83	66%	31	0	#DIV/0!
32	0	0%	55	90	72%	32	0	#DIV/0!
33	0	0%	56	97	78%	33	0	#DIV/0!
34	0	0%	57	102	82%	34	0	#DIV/0!
35	0	0%	58	109	87%	35	0	#DIV/0!
36	0	0%	59	113	90%	36	0	#DIV/0!
37	0	0%	60	114	91%	37	0	#DIV/0!
38	0	0%	61	120	96%	38	0	#DIV/0!
39	0	0%	62	122	98%	39	0	#DIV/0!
40	0	0%	63	124	99%	40	0	#DIV/0!
41	1	1%	64	125	100%	41	0	#DIV/0!
42	4	3%	65	125	100%	42	0	#DIV/0!
43	6	5%	66	125	100%	43	0	#DIV/0!
44	11	9%	67	125	100%	44	0	#DIV/0!
45	13	10%	68	125	100%	45	0	#DIV/0!
46	20	16%	69	125	100%	46	0	#DIV/0!
47	27	22%	70	125	100%	47	0	#DIV/0!
48	36	29%	71	125	100%	48	0	#DIV/0!
49	40	32%	72	125	100%	49	0	#DIV/0!
50	47	38%	73	125	100%	50	0	#DIV/0!
51	55	44%	74	125	100%	51	0	#DIV/0!
52	63	50%	75	125	100%	52	0	#DIV/0!

Spot Speed Study
SH 99 NBFR south of W Riverpark Dr

Northbound 85% speed is: **58 MPH**
 Southbound 85% speed is: **#DIV/0!**

Date: 12/10/2014 Begin Time: 9:00 AM
 Posted Speed: End Time: 10:30 AM

Speed	Northbound	Southbound
30	0	0
31	0	0
32	0	0
33	0	0
34	0	0
35	1	0
36	1	0
37	1	0
38	2	0
39	0	0
40	0	0
41	2	0
42	2	0
43	0	0
44	4	0
45	6	0
46	4	0
47	6	0
48	4	0
49	7	0
50	8	0
51	10	0
52	10	0
53	9	0
54	5	0
55	13	0
56	8	0
57	6	0
58	6	0
59	8	0
60	4	0
61	1	0
62	1	0
63	2	0
64	1	0
65	0	0
66	1	0
67	0	0
68	0	0
69	0	0
70	2	0
71	0	0
72	0	0
73	0	0
74	0	0
75	0	0
Total:	135	0



Northbound					Southbound						
Cumulative					Cumulative						
Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed		
30	0	0%	53	77	57%	30	0	#DIV/0!	53	0	#DIV/0!
31	0	0%	54	82	61%	31	0	#DIV/0!	54	0	#DIV/0!
32	0	0%	55	95	70%	32	0	#DIV/0!	55	0	#DIV/0!
33	0	0%	56	103	76%	33	0	#DIV/0!	56	0	#DIV/0!
34	0	0%	57	109	81%	34	0	#DIV/0!	57	0	#DIV/0!
35	1	1%	58	115	85%	35	0	#DIV/0!	58	0	#DIV/0!
36	2	1%	59	123	91%	36	0	#DIV/0!	59	0	#DIV/0!
37	3	2%	60	127	94%	37	0	#DIV/0!	60	0	#DIV/0!
38	5	4%	61	128	95%	38	0	#DIV/0!	61	0	#DIV/0!
39	5	4%	62	129	96%	39	0	#DIV/0!	62	0	#DIV/0!
40	5	4%	63	131	97%	40	0	#DIV/0!	63	0	#DIV/0!
41	7	5%	64	132	98%	41	0	#DIV/0!	64	0	#DIV/0!
42	9	7%	65	132	98%	42	0	#DIV/0!	65	0	#DIV/0!
43	9	7%	66	133	99%	43	0	#DIV/0!	66	0	#DIV/0!
44	13	10%	67	133	99%	44	0	#DIV/0!	67	0	#DIV/0!
45	19	14%	68	133	99%	45	0	#DIV/0!	68	0	#DIV/0!
46	23	17%	69	133	99%	46	0	#DIV/0!	69	0	#DIV/0!
47	29	21%	70	135	100%	47	0	#DIV/0!	70	0	#DIV/0!
48	33	24%	71	135	100%	48	0	#DIV/0!	71	0	#DIV/0!
49	40	30%	72	135	100%	49	0	#DIV/0!	72	0	#DIV/0!
50	48	36%	73	135	100%	50	0	#DIV/0!	73	0	#DIV/0!
51	58	43%	74	135	100%	51	0	#DIV/0!	74	0	#DIV/0!
52	68	50%	75	135	100%	52	0	#DIV/0!	75	0	#DIV/0!

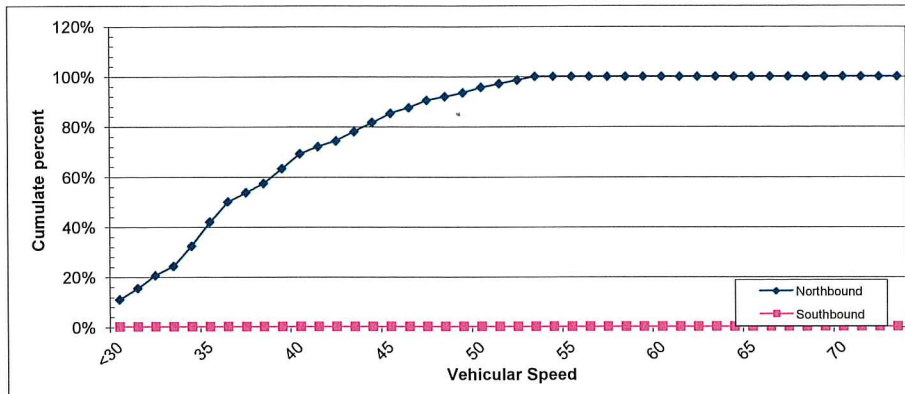
Spot Speed Study
Northbound SH 99 south of US 90A

Northbound 85% speed is: 45 MPH
Southbound 85% speed is: #DIV/0!

Date: 12/10/2014
Begin Time: 9:00 AM
End Time: 10:30 AM

Posted Speed:

Speed	Northbound	Southbound
<30	15	0
31	6	0
32	7	0
33	5	0
34	11	0
35	13	0
36	11	0
37	5	0
38	5	0
39	8	0
40	8	0
41	4	0
42	3	0
43	5	0
44	5	0
45	5	0
46	3	0
47	4	0
48	2	0
49	2	0
50	3	0
51	2	0
52	2	0
53	2	0
54	0	0
55	0	0
56	0	0
57	0	0
58	0	0
59	0	0
60	0	0
61	0	0
62	0	0
63	0	0
64	0	0
65	0	0
66	0	0
67	0	0
68	0	0
69	0	0
70	0	0
71	0	0
72	0	0
73	0	0
74	0	0
75	0	0
Total:	136	0



Northbound				Southbound				
Cumulative		Cumulative		Cumulative		Cumulative		
Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed	
<30	15	11%	53	136	100%	<30	0	#DIV/0!
31	21	15%	54	136	100%	31	0	#DIV/0!
32	28	21%	55	136	100%	32	0	#DIV/0!
33	33	24%	56	136	100%	33	0	#DIV/0!
34	44	32%	57	136	100%	34	0	#DIV/0!
35	57	42%	58	136	100%	35	0	#DIV/0!
36	68	50%	59	136	100%	36	0	#DIV/0!
37	73	54%	60	136	100%	37	0	#DIV/0!
38	78	57%	61	136	100%	38	0	#DIV/0!
39	86	63%	62	136	100%	39	0	#DIV/0!
40	94	69%	63	136	100%	40	0	#DIV/0!
41	98	72%	64	136	100%	41	0	#DIV/0!
42	101	74%	65	136	100%	42	0	#DIV/0!
43	106	78%	66	136	100%	43	0	#DIV/0!
44	111	82%	67	136	100%	44	0	#DIV/0!
45	116	85%	68	136	100%	45	0	#DIV/0!
46	119	88%	69	136	100%	46	0	#DIV/0!
47	123	90%	70	136	100%	47	0	#DIV/0!
48	125	92%	71	136	100%	48	0	#DIV/0!
49	127	93%	72	136	100%	49	0	#DIV/0!
50	130	96%	73	136	100%	50	0	#DIV/0!
51	132	97%	74	136	100%	51	0	#DIV/0!
52	134	99%	75	136	100%	52	0	#DIV/0!

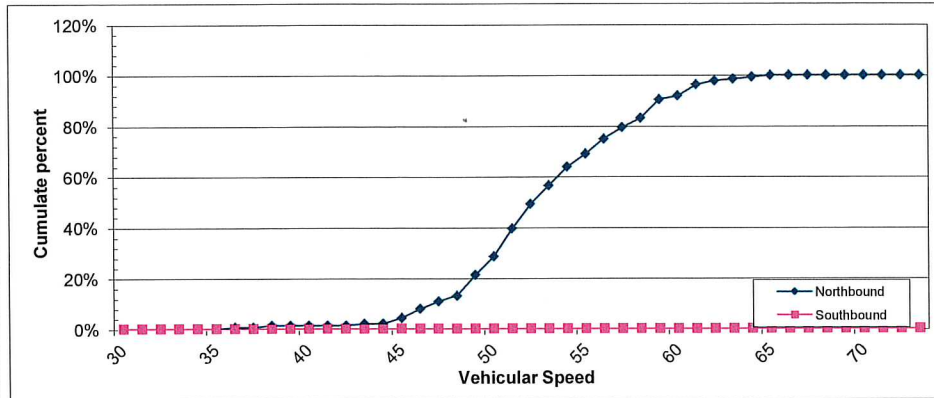
Spot Speed Study SH 99 NBFR south of Westpark Tollway

Northbound 85% speed is: **59 MPH**
Southbound 85% speed is: **#DIV/0!**

Date: 12/9/2014
Posted Speed:

Begin Time: 2:00 PM
End Time: 2:30 PM

Speed	Northbound	Southbound
30	0	0
31	0	0
32	0	0
33	0	0
34	0	0
35	0	0
36	1	0
37	0	0
38	1	0
39	0	0
40	0	0
41	0	0
42	0	0
43	1	0
44	0	0
45	3	0
46	5	0
47	4	0
48	3	0
49	11	0
50	10	0
51	15	0
52	13	0
53	10	0
54	10	0
55	7	0
56	8	0
57	6	0
58	5	0
59	10	0
60	2	0
61	6	0
62	2	0
63	1	0
64	1	0
65	1	0
66	0	0
67	0	0
68	0	0
69	0	0
70	0	0
71	0	0
72	0	0
73	0	0
74	0	0
75	0	0
Total:	136	0



		Northbound				Southbound			
		Cumulative		Cumulative		Cumulative		Cumulative	
		Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed
30	0	0	0%	53	77	57%	30	0	#DIV/0!
31	0	0	0%	54	87	64%	31	0	#DIV/0!
32	0	0	0%	55	94	69%	32	0	#DIV/0!
33	0	0	0%	56	102	75%	33	0	#DIV/0!
34	0	0	0%	57	108	79%	34	0	#DIV/0!
35	0	0	0%	58	113	83%	35	0	#DIV/0!
36	1	1%		59	123	90%	36	0	#DIV/0!
37	1	1%		60	125	92%	37	0	#DIV/0!
38	2	1%		61	131	96%	38	0	#DIV/0!
39	2	1%		62	133	98%	39	0	#DIV/0!
40	2	1%		63	134	99%	40	0	#DIV/0!
41	2	1%		64	135	99%	41	0	#DIV/0!
42	2	1%		65	136	100%	42	0	#DIV/0!
43	3	2%		66	136	100%	43	0	#DIV/0!
44	3	2%		67	136	100%	44	0	#DIV/0!
45	6	4%		68	136	100%	45	0	#DIV/0!
46	11	8%		69	136	100%	46	0	#DIV/0!
47	15	11%		70	136	100%	47	0	#DIV/0!
48	18	13%		71	136	100%	48	0	#DIV/0!
49	29	21%		72	136	100%	49	0	#DIV/0!
50	39	29%		73	136	100%	50	0	#DIV/0!
51	54	40%		74	136	100%	51	0	#DIV/0!
52	67	49%		75	136	100%	52	0	#DIV/0!

Total: 136 0

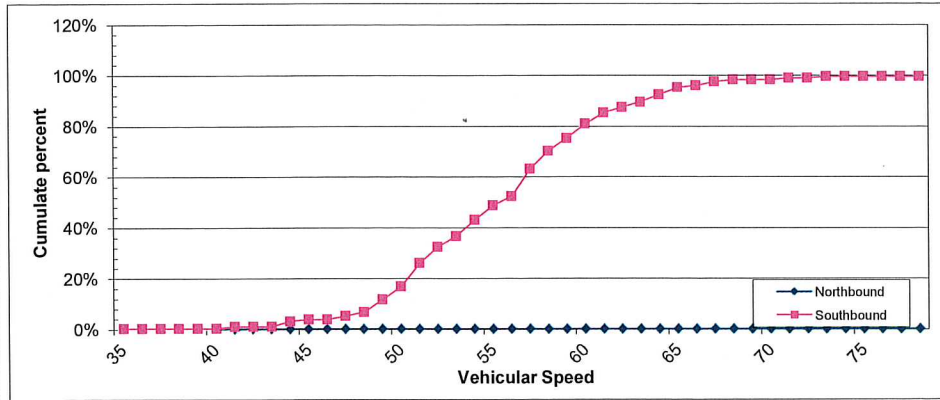
Spot Speed Study SH 99 SBFR north of W Airport

Northbound 85% speed is: #DIV/0!
Southbound 85% speed is: 61 MPH

Date: 12/9/2014
Posted Speed:

Begin Time: 1:00 PM
End Time: 2:00 PM

Speed	Northbound	Southbound
35	0	0
36	0	0
37	0	0
38	0	0
39	0	0
40	0	0
41	0	1
42	0	0
43	0	0
44	0	3
45	0	1
46	0	0
47	0	2
48	0	2
49	0	7
50	0	7
51	0	13
52	0	9
53	0	6
54	0	9
55	0	8
56	0	5
57	0	15
58	0	10
59	0	7
60	0	8
61	0	6
62	0	3
63	0	3
64	0	4
65	0	4
66	0	1
67	0	2
68	0	1
69	0	0
70	0	0
71	0	1
72	0	0
73	0	1
74	0	0
75	0	0
76	0	0
77	0	0
78	0	0
79	0	0
>80	0	1
Total:	0	140



Northbound				Southbound			
Cumulative		Cumulative		Cumulative		Cumulative	
Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed
35	0	58	0	35	0	58	70.00%
36	0	59	0	36	0	59	75.00%
37	0	60	0	37	0	60	80.71%
38	0	61	0	38	0	61	85.00%
39	0	62	0	39	0	62	87.14%
40	0	63	0	40	0	63	89.29%
41	0	64	0	41	1	64	92.14%
42	0	65	0	42	1	65	95.00%
43	0	66	0	43	1	66	95.71%
44	0	67	0	44	4	67	97.14%
45	0	68	0	45	5	68	97.86%
46	0	69	0	46	5	69	97.86%
47	0	70	0	47	7	70	97.86%
48	0	71	0	48	9	71	98.57%
49	0	72	0	49	16	72	98.57%
50	0	73	0	50	23	73	99.29%
51	0	74	0	51	36	74	99.29%
52	0	75	0	52	45	75	99.29%
53	0	76	0	53	51	76	99.29%
54	0	77	0	54	60	77	99.29%
55	0	78	0	55	68	78	99.29%
56	0	79	0	56	73	79	99.29%
57	0	>80	0	57	88	>80	100.00%

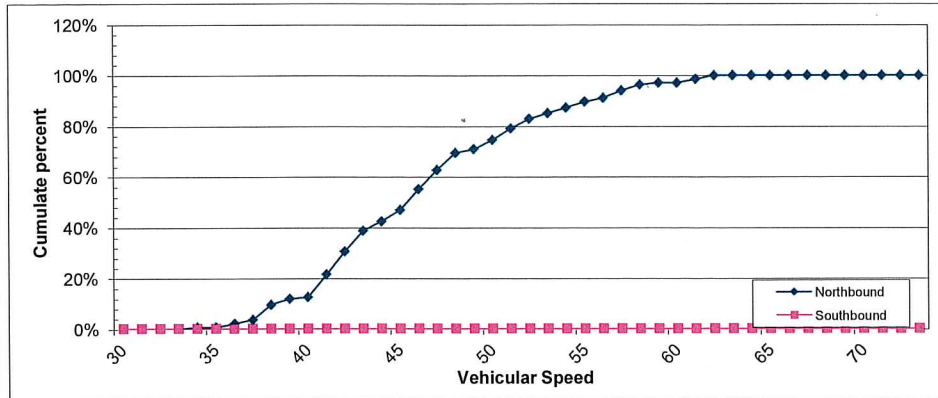
Spot Speed Study
SH 99 SBFR north of Bellaire Blvd

Northbound 85% speed is: **53 MPH**
Southbound 85% speed is: **#DIV/0!**

Date: 12/9/2014
Posted Speed:

Begin Time: 12:00 PM
End Time: 11:30 AM

Speed	Northbound	Southbound
30	0	0
31	0	0
32	0	0
33	0	0
34	1	0
35	0	0
36	2	0
37	2	0
38	8	0
39	3	0
40	1	0
41	12	0
42	12	0
43	11	0
44	5	0
45	6	0
46	11	0
47	10	0
48	9	0
49	2	0
50	5	0
51	6	0
52	5	0
53	3	0
54	3	0
55	3	0
56	2	0
57	4	0
58	3	0
59	1	0
60	0	0
61	2	0
62	2	0
63	0	0
64	0	0
65	0	0
66	0	0
67	0	0
68	0	0
69	0	0
70	0	0
71	0	0
72	0	0
73	0	0
74	0	0
75	0	0
Total:	134	0



Northbound					Southbound				
Cumulative					Cumulative				
Total of Vehicles Surveyed	Percent of Vehicles Surveyed		Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed	
30	0	0%	53	114	85%	30	0	#DIV/0!	
31	0	0%	54	117	87%	31	0	#DIV/0!	
32	0	0%	55	120	90%	32	0	#DIV/0!	
33	0	0%	56	122	91%	33	0	#DIV/0!	
34	1	1%	57	126	94%	34	0	#DIV/0!	
35	1	1%	58	129	96%	35	0	#DIV/0!	
36	3	2%	59	130	97%	36	0	#DIV/0!	
37	5	4%	60	130	97%	37	0	#DIV/0!	
38	13	10%	61	132	99%	38	0	#DIV/0!	
39	16	12%	62	134	100%	39	0	#DIV/0!	
40	17	13%	63	134	100%	40	0	#DIV/0!	
41	29	22%	64	134	100%	41	0	#DIV/0!	
42	41	31%	65	134	100%	42	0	#DIV/0!	
43	52	39%	66	134	100%	43	0	#DIV/0!	
44	57	43%	67	134	100%	44	0	#DIV/0!	
45	63	47%	68	134	100%	45	0	#DIV/0!	
46	74	55%	69	134	100%	46	0	#DIV/0!	
47	84	63%	70	134	100%	47	0	#DIV/0!	
48	93	69%	71	134	100%	48	0	#DIV/0!	
49	95	71%	72	134	100%	49	0	#DIV/0!	
50	100	75%	73	134	100%	50	0	#DIV/0!	
51	106	79%	74	134	100%	51	0	#DIV/0!	
52	111	83%	75	134	100%	52	0	#DIV/0!	

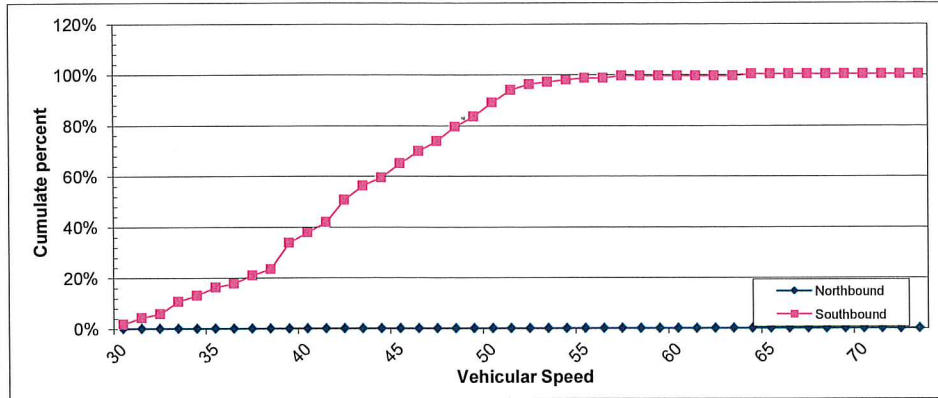
Spot Speed Study SH 99 SBFR north of Long Meadow Farms Pkwy

Northbound 85% speed is: #DIV/0!
Southbound 85% speed is: 50 MPH

Date: 12/9/2014
Posted Speed: 60 MPH

Begin Time: 1:00 PM
End Time: 3:00 PM

Speed	Northbound	Southbound
30	0	2
31	0	3
32	0	2
33	0	6
34	0	3
35	0	4
36	0	2
37	0	4
38	0	3
39	0	13
40	0	5
41	0	5
42	0	11
43	0	7
44	0	4
45	0	7
46	0	6
47	0	5
48	0	7
49	0	5
50	0	7
51	0	6
52	0	3
53	0	1
54	0	1
55	0	1
56	0	0
57	0	1
58	0	0
59	0	0
60	0	0
61	0	0
62	0	0
63	0	0
64	0	1
65	0	0
66	0	0
67	0	0
68	0	0
69	0	0
70	0	0
71	0	0
72	0	0
73	0	0
74	0	0
75	0	0
Total:	0	125



Northbound				Southbound			
Cumulative		Cumulative		Cumulative		Cumulative	
Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed
30	0	53	0	30	2	53	121
31	0	54	0	31	5	54	122
32	0	55	0	32	7	55	123
33	0	56	0	33	13	56	123
34	0	57	0	34	16	57	124
35	0	58	0	35	20	58	124
36	0	59	0	36	22	59	124
37	0	60	0	37	26	60	124
38	0	61	0	38	29	61	124
39	0	62	0	39	42	62	124
40	0	63	0	40	47	63	124
41	0	64	0	41	52	64	125
42	0	65	0	42	63	65	125
43	0	66	0	43	70	66	125
44	0	67	0	44	74	67	125
45	0	68	0	45	81	68	125
46	0	69	0	46	87	69	125
47	0	70	0	47	92	70	125
48	0	71	0	48	99	71	125
49	0	72	0	49	104	72	125
50	0	73	0	50	111	73	125
51	0	74	0	51	117	74	125
52	0	75	0	52	120	75	125

Spot Speed Study SH 99 SBFR north of River Falls Dr

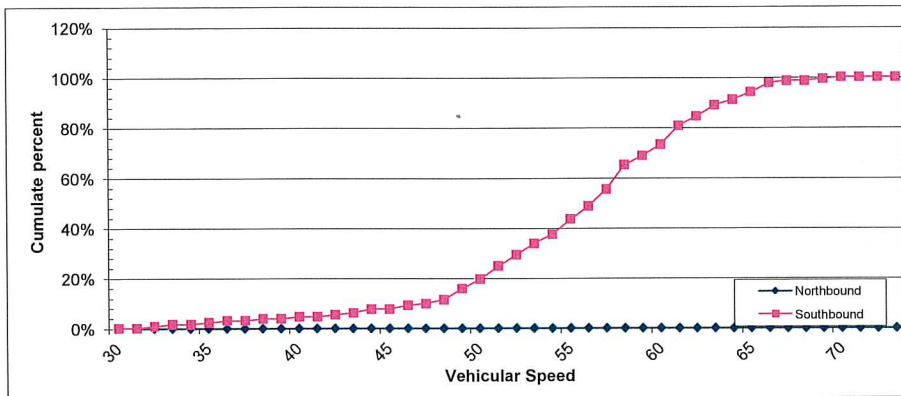
Northbound 85% speed is: #DIV/0!
Southbound 85% speed is: 63 MPH

Date: 12/10/2014
Posted Speed:

Begin Time: 9:00 AM
End Time: 10:00 AM

Speed	Northbound	Southbound
30	0	0
31	0	0
32	0	1
33	0	1
34	0	0
35	0	1
36	0	1
37	0	0
38	0	1
39	0	0
40	0	1
41	0	0
42	0	1
43	0	1
44	0	2
45	0	0
46	0	2
47	0	1
48	0	2
49	0	6
50	0	5
51	0	7
52	0	6
53	0	6
54	0	5
55	0	8
56	0	7
57	0	9
58	0	13
59	0	5
60	0	6
61	0	10
62	0	5
63	0	6
64	0	3
65	0	4
66	0	5
67	0	1
68	0	0
69	0	1
70	0	1
71	0	0
72	0	0
73	0	0
74	0	0
75	0	0

Total: 0 134



	Northbound				Southbound						
	Cumulative		Cumulative		Cumulative		Cumulative				
	Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed			
30	0	#DIV/0!	53	0	#DIV/0!	30	0	0%	53	45	33.58%
31	0	#DIV/0!	54	0	#DIV/0!	31	0	0%	54	50	37.31%
32	0	#DIV/0!	55	0	#DIV/0!	32	1	1%	55	58	43.28%
33	0	#DIV/0!	56	0	#DIV/0!	33	2	1%	56	65	48.51%
34	0	#DIV/0!	57	0	#DIV/0!	34	2	1%	57	74	55.22%
35	0	#DIV/0!	58	0	#DIV/0!	35	3	2%	58	87	64.93%
36	0	#DIV/0!	59	0	#DIV/0!	36	4	3%	59	92	68.66%
37	0	#DIV/0!	60	0	#DIV/0!	37	4	3%	60	98	73.13%
38	0	#DIV/0!	61	0	#DIV/0!	38	5	4%	61	108	80.60%
39	0	#DIV/0!	62	0	#DIV/0!	39	5	4%	62	113	84.33%
40	0	#DIV/0!	63	0	#DIV/0!	40	6	4%	63	119	88.81%
41	0	#DIV/0!	64	0	#DIV/0!	41	6	4%	64	122	91.04%
42	0	#DIV/0!	65	0	#DIV/0!	42	7	5%	65	126	94.03%
43	0	#DIV/0!	66	0	#DIV/0!	43	8	6%	66	131	97.76%
44	0	#DIV/0!	67	0	#DIV/0!	44	10	7%	67	132	98.51%
45	0	#DIV/0!	68	0	#DIV/0!	45	10	7%	68	132	98.51%
46	0	#DIV/0!	69	0	#DIV/0!	46	12	9%	69	133	99.25%
47	0	#DIV/0!	70	0	#DIV/0!	47	13	10%	70	134	100.00%
48	0	#DIV/0!	71	0	#DIV/0!	48	15	11%	71	134	100.00%
49	0	#DIV/0!	72	0	#DIV/0!	49	21	16%	72	134	100.00%
50	0	#DIV/0!	73	0	#DIV/0!	50	26	19%	73	134	100.00%
51	0	#DIV/0!	74	0	#DIV/0!	51	33	25%	74	134	100.00%
52	0	#DIV/0!	75	0	#DIV/0!	52	39	29%	75	134	100.00%

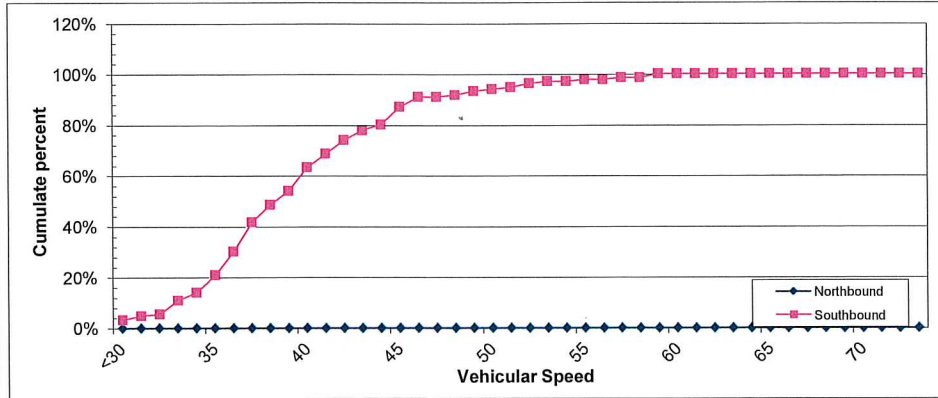
Spot Speed Study SH 99 SBFR south of US 90A

Northbound 85% speed is: #DIV/0!
Southbound 85% speed is: 45 MPH

Date: 12/9/2014
Posted Speed:

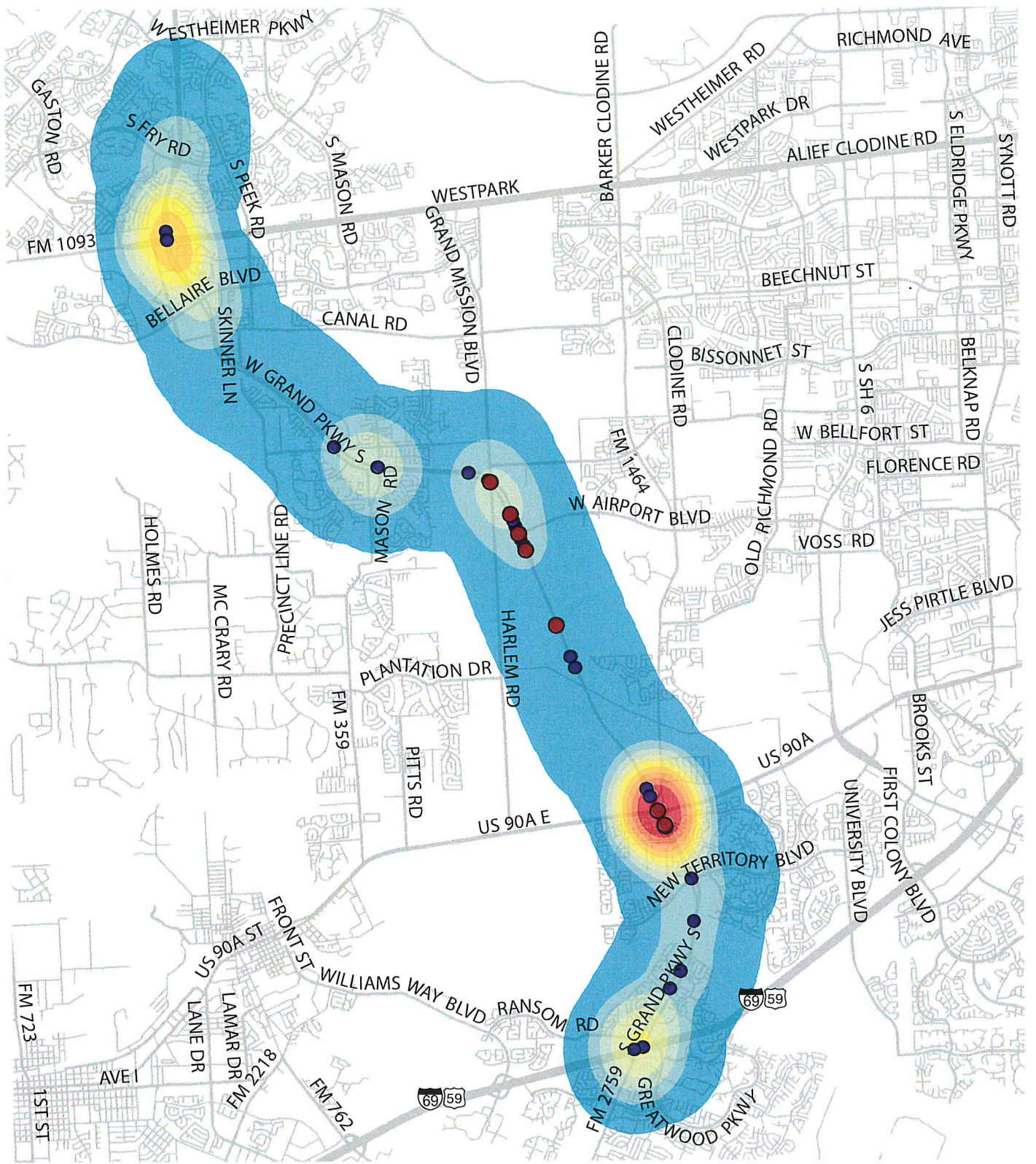
Begin Time: 9:00 PM
End Time: 11:30 PM

Speed	Northbound	Southbound
<30	0	4
31	0	2
32	0	1
33	0	7
34	0	4
35	0	9
36	0	12
37	0	15
38	0	9
39	0	7
40	0	12
41	0	7
42	0	7
43	0	5
44	0	3
45	0	9
46	0	5
47	0	0
48	0	1
49	0	2
50	0	1
51	0	1
52	0	2
53	0	1
54	0	0
55	0	1
56	0	0
57	0	1
58	0	0
59	0	2
60	0	0
61	0	0
62	0	0
63	0	0
64	0	0
65	0	0
66	0	0
67	0	0
68	0	0
69	0	0
70	0	0
71	0	0
72	0	0
73	0	0
74	0	0
75	0	0
Total:	0	130



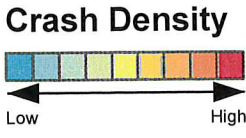
Speed	Northbound				Southbound					
	Cumulative		Total of Vehicles Surveyed	Cumulative		Cumulative		Total of Vehicles Surveyed	Cumulative	
	Total of Vehicles Surveyed	Percent of Vehicles Surveyed		Total of Vehicles Surveyed	Percent of Vehicles Surveyed	Total of Vehicles Surveyed	Percent of Vehicles Surveyed		Total of Vehicles Surveyed	Percent of Vehicles Surveyed
<30	0	#DIV/0!	53	0	<30	4	3%	53	126	96.92%
31	0	#DIV/0!	54	0	31	6	5%	54	126	96.92%
32	0	#DIV/0!	55	0	32	7	5%	55	127	97.69%
33	0	#DIV/0!	56	0	33	14	11%	56	127	97.69%
34	0	#DIV/0!	57	0	34	18	14%	57	128	98.46%
35	0	#DIV/0!	58	0	35	27	21%	58	128	98.46%
36	0	#DIV/0!	59	0	36	39	30%	59	130	100.00%
37	0	#DIV/0!	60	0	37	54	42%	60	130	100.00%
38	0	#DIV/0!	61	0	38	63	48%	61	130	100.00%
39	0	#DIV/0!	62	0	39	70	54%	62	130	100.00%
40	0	#DIV/0!	63	0	40	82	63%	63	130	100.00%
41	0	#DIV/0!	64	0	41	89	68%	64	130	100.00%
42	0	#DIV/0!	65	0	42	96	74%	65	130	100.00%
43	0	#DIV/0!	66	0	43	101	78%	66	130	100.00%
44	0	#DIV/0!	67	0	44	104	80%	67	130	100.00%
45	0	#DIV/0!	68	0	45	113	87%	68	130	100.00%
46	0	#DIV/0!	69	0	46	118	91%	69	130	100.00%
47	0	#DIV/0!	70	0	47	118	91%	70	130	100.00%
48	0	#DIV/0!	71	0	48	119	92%	71	130	100.00%
49	0	#DIV/0!	72	0	49	121	93%	72	130	100.00%
50	0	#DIV/0!	73	0	50	122	94%	73	130	100.00%
51	0	#DIV/0!	74	0	51	123	95%	74	130	100.00%
52	0	#DIV/0!	75	0	52	125	96%	75	130	100.00%

Appendix B - Crash Density Map



LEGEND

- Fatality
- Incapacitating Injury



Appendix C - Strip Map

MAIN LANE ZONE SPEEDS MPH

TOWARD

US 59

C.L. FRONTAGE ROAD

C.L. MAIN LANE

C.L. FRONTAGE ROAD

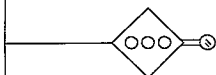
W RIVERPARK DR

TOWARD

BEGIN PROJECT

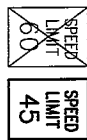
RANSOM RD

SPEED LIMIT 45



RIVER FALLS DR

63
70
134



E RIVERPARK DR

MAIN LANE ZONE SPEEDS MPH
MAIN LANE ZONE LENGTHS MILE

MPH

MILE

MAIN LANE ACCIDENTS

FRONTAGE ROAD ZONE SPEEDS MPH

FRONTAGE ROAD ZONE LENGTHS MILE

FRONTAGE ROAD AND RAMP ACCIDENTS

R.O.W. AND RDBD. WIDTH

SUR. WIDTH AND TYPE

GRADES OVER 3%

CURVES OVER 2°

BALL BANK OR ADVISORY SPEED

RES. SIGHT DISTANCE

DEVELOPMENT

COMMERCIAL

UNDEVELOPED

RESIDEN

FORT BEND COUNTY, TEXAS

DATE OF SURVEY 12/21/2014

SCALE

1" = 300'

LIMITS OF ZONE

SECTION ONE LENGTH MILES

SECTION TWO LENGTH MILES

BEGINS STA INTERSECTION CONT & SECT PROJECT

ENDS STA INTERSECTION CONT & SECT PROJECT

BEGINS

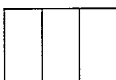
STA INTERSECTION CONT & SECT PROJECT

PROJECT

ENDS

STA INTERSECTION CONT & SECT PROJECT

PROJECT



85 PERCENTILE SPEED
TOP SPEED MEASURED
NUMBER OF CARS CHECKED

● FATAL ACCIDENT

◐ PERSONAL INJURY ACCIDENT

○ PROPERTY DAMAGE ACCIDENT

SEE APPENDIX A FOR CRAS

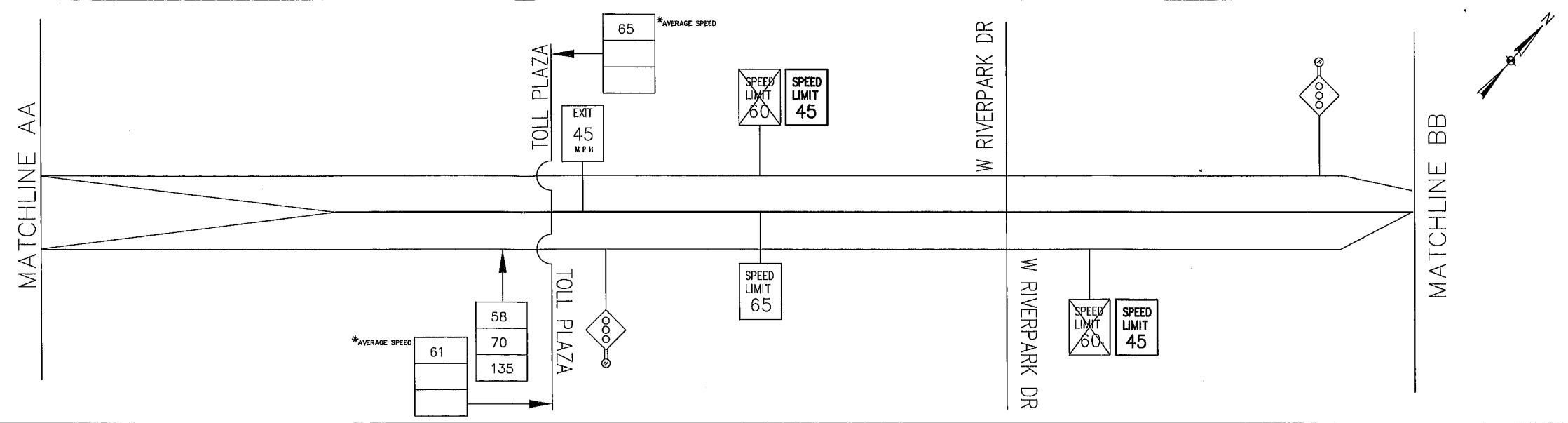
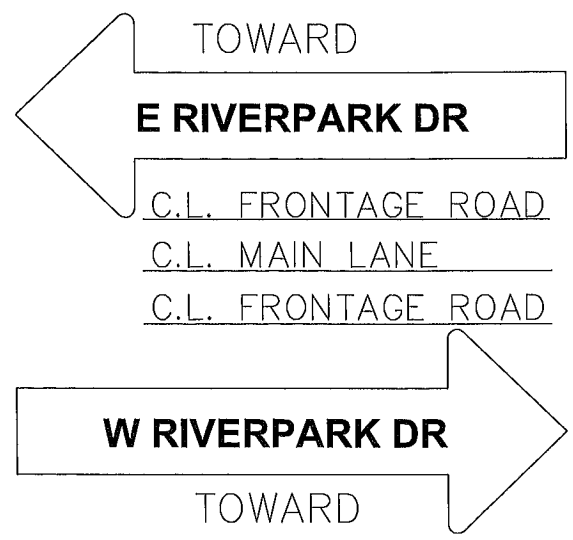
STR

FROM US 59

SPEED

GRANN

DEVELOPMENT		UNDEVELOPED		SCHOOL		CHURCH		UNDEVELOPED	
RES. SIGHT DISTANCE									
BALL BANK OR ADVISORY SPEED									
CURVES OVER 2°									
GRADES OVER 3%									
SUR. WIDTH AND TYPE									
R.O.W. AND RDBD. WIDTH									
FRONTAGE ROAD AND RAMP ACCIDENTS									
FRONTAGE ROAD ZONE LENGTHS	MILE	2 LANE			3 LANE		2 LANE		1 LANE
FRONTAGE ROAD ZONE SPEEDS	MPH	45 MPH							
MAIN LANE ACCIDENTS									
MAIN LANE ZONE LENGTHS	MILE	65 MPH							
MAIN LANE ZONE SPEEDS	MPH								



MAIN LANE ZONE SPEEDS	MPH	65 MPH							
MAIN LANE ZONE LENGTHS	MILE	2 LANE							
MAIN LANE ACCIDENTS									
FRONTAGE ROAD ZONE SPEEDS	MPH	45 MPH			3 LANE		2 LANE		1 LANE
FRONTAGE ROAD ZONE LENGTHS	MILE	2 LANE							
FRONTAGE ROAD AND RAMP ACCIDENTS									
R.O.W. AND RDBD. WIDTH									
SUR. WIDTH AND TYPE									
GRADES OVER 3%									
CURVES OVER 2°									
BALL BANK OR ADVISORY SPEED									
RES. SIGHT DISTANCE									
DEVELOPMENT		RESIDENTIAL							

FORT BEND COUNTY, TEXAS

DATE OF SURVEY **12/21/2014** SCALE **1" = 300'**

LIMITS OF ZONE

SECTION ONE		LENGTH	MILES	SECTION TWO		LENGTH	MILES
BEGINS	STA INTERSECTION CONT & SECT	PROJECT		BEGINS	STA INTERSECTION CONT & SECT	PROJECT	
ENDS	STA INTERSECTION CONT & SECT	PROJECT		ENDS	STA INTERSECTION CONT & SECT	PROJECT	

- 85 PERCENTILE SPEED
TOP SPEED MEASURED
NUMBER OF CARS CHECKED
- FATAL ACCIDENT
- PERSONAL INJURY ACCIDENT
- PROPERTY DAMAGE ACCIDENT

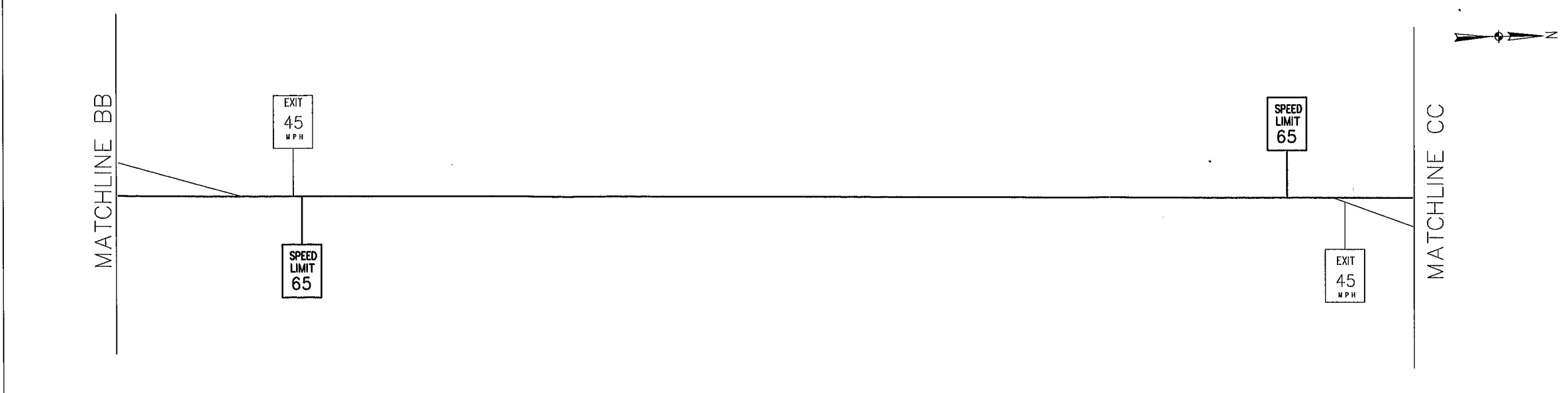
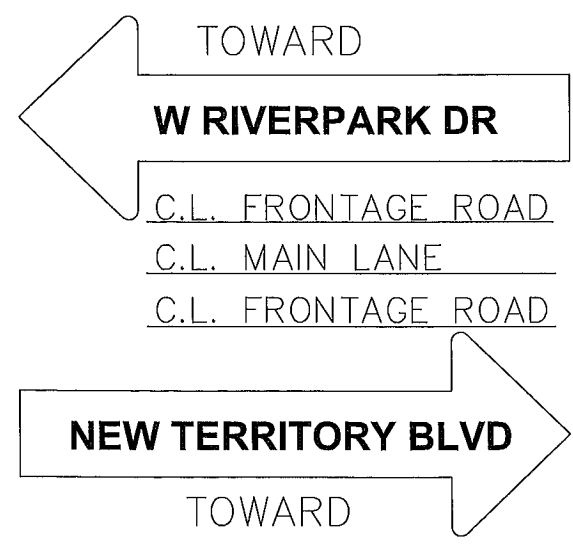
SPEED ZONE

GRAND PARKWAY
FROM US 59 TO S. FRY ROAD

STRIP MAP

SEE APPENDIX A FOR CRASH DENSITY MAP ALONG CORRIDOR

DEVELOPMENT			UNDEVELOPED
RES. SIGHT DISTANCE			
BALL BANK OR ADVISORY SPEED			
CURVES OVER 2°			
GRADES OVER 3%			BRIDGE
SUR. WIDTH AND TYPE			
R.O.W. AND RDBD. WIDTH			
FRONTAGE ROAD AND RAMP ACCIDENTS			
FRONTAGE ROAD ZONE LENGTHS	MILE	1 LANE	
FRONTAGE ROAD ZONE SPEEDS	MPH		
MAIN LANE ACCIDENTS			
MAIN LANE ZONE LENGTHS	MILE		2 LANE
MAIN LANE ZONE SPEEDS	MPH	45 MPH	65 MPH



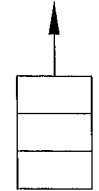



MAIN LANE ZONE SPEEDS	MPH		65 MPH	45 MPH
MAIN LANE ZONE LENGTHS	MILE		2 LANE	
MAIN LANE ACCIDENTS				
FRONTAGE ROAD ZONE SPEEDS	MPH			
FRONTAGE ROAD ZONE LENGTHS	MILE			1 LANE
FRONTAGE ROAD AND RAMP ACCIDENTS				
R.O.W. AND RDBD. WIDTH				
SUR. WIDTH AND TYPE				
GRADES OVER 3%				BRIDGE
CURVES OVER 2°				
BALL BANK OR ADVISORY SPEED				
RES. SIGHT DISTANCE				
DEVELOPMENT			UNDEVELOPED	

FORT BEND COUNTY, TEXAS

DATE OF SURVEY **12/21/2014** SCALE **1" = 300'**

LIMITS OF ZONE

SECTION ONE		LENGTH	MILES	SECTION TWO		LENGTH	MILES
BEGINS	STA INTERSECTION CONT & SECT		PROJECT	BEGINS	STA INTERSECTION CONT & SECT		PROJECT
ENDS	STA INTERSECTION CONT & SECT		PROJECT	ENDS	STA INTERSECTION CONT & SECT		PROJECT

-  85 PERCENTILE SPEED
TOP SPEED MEASURED
NUMBER OF CARS CHECKED
-  FATAL ACCIDENT
-  PERSONAL INJURY ACCIDENT
-  PROPERTY DAMAGE ACCIDENT

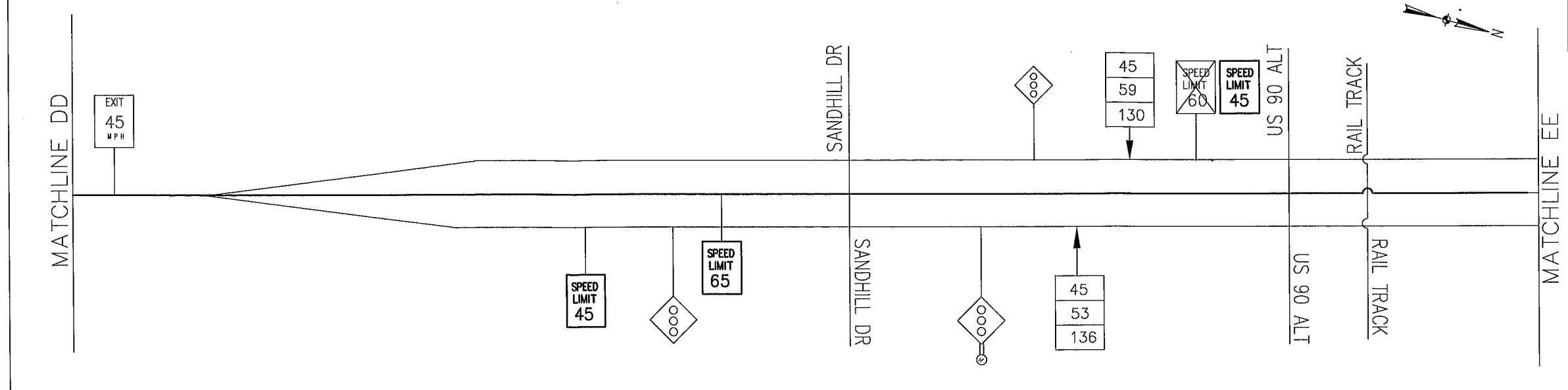
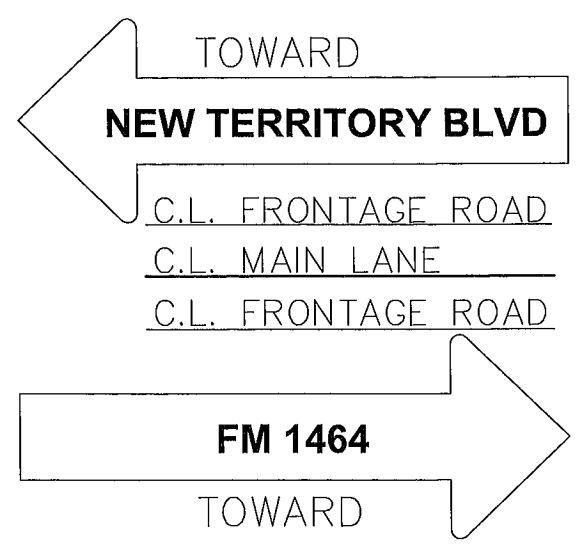
SPEED ZONE

GRAND PARKWAY
FROM US 59 TO S. FRY ROAD

STRIP MAP

SEE APPENDIX A FOR CRASH DENSITY MAP ALONG CORRIDOR

DEVELOPMENT		RESIDENTIAL				UNDEVELOPED			
RES. SIGHT DISTANCE									
BALL BANK OR ADVISORY SPEED									
CURVES OVER 2°									
GRADES OVER 3%		BRIDGE							
SUR. WIDTH AND TYPE									
R.O.W. AND RDBD. WIDTH									
FRONTAGE ROAD AND RAMP ACCIDENTS									
FRONTAGE ROAD ZONE LENGTHS	MILE	2 LANE		2 LANE		3 LANE	2 LANE	3 LANE	2 LANE
FRONTAGE ROAD ZONE SPEEDS	MPH	45 MPH							
MAIN LANE ACCIDENTS									
MAIN LANE ZONE LENGTHS	MILE	2 LANE							
MAIN LANE ZONE SPEEDS	MPH	65 MPH							



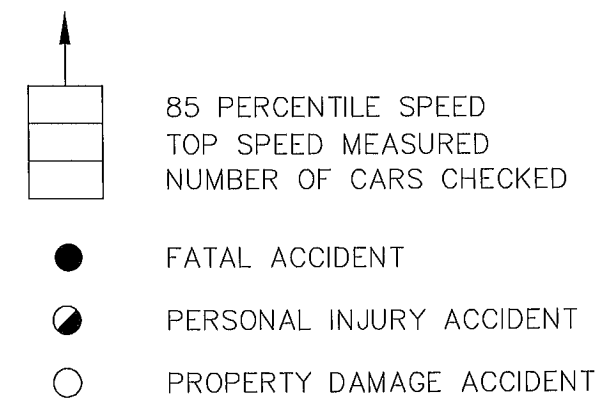
MAIN LANE ZONE SPEEDS	MPH	65 MPH						
MAIN LANE ZONE LENGTHS	MILE	2 LANE						
MAIN LANE ACCIDENTS								
FRONTAGE ROAD ZONE SPEEDS	MPH	45 MPH						
FRONTAGE ROAD ZONE LENGTHS	MILE	2 LANE		3 LANE		2 LANE	3 LANE	2 LANE
FRONTAGE ROAD AND RAMP ACCIDENTS								
R.O.W. AND RDBD. WIDTH								
SUR. WIDTH AND TYPE								
GRADES OVER 3%								
CURVES OVER 2°								
BALL BANK OR ADVISORY SPEED								
RES. SIGHT DISTANCE								
DEVELOPMENT		RESIDENTIAL				UNDEVELOPED		

FORT BEND COUNTY, TEXAS

DATE OF SURVEY **12/21/2014** SCALE **1" = 300'**

LIMITS OF ZONE

SECTION ONE		LENGTH	MILES	SECTION TWO		LENGTH	MILES
BEGINS	STA INTERSECTION CONT & SECT		PROJECT	BEGINS	STA INTERSECTION CONT & SECT		PROJECT
ENDS	STA INTERSECTION CONT & SECT		PROJECT	ENDS	STA INTERSECTION CONT & SECT		PROJECT



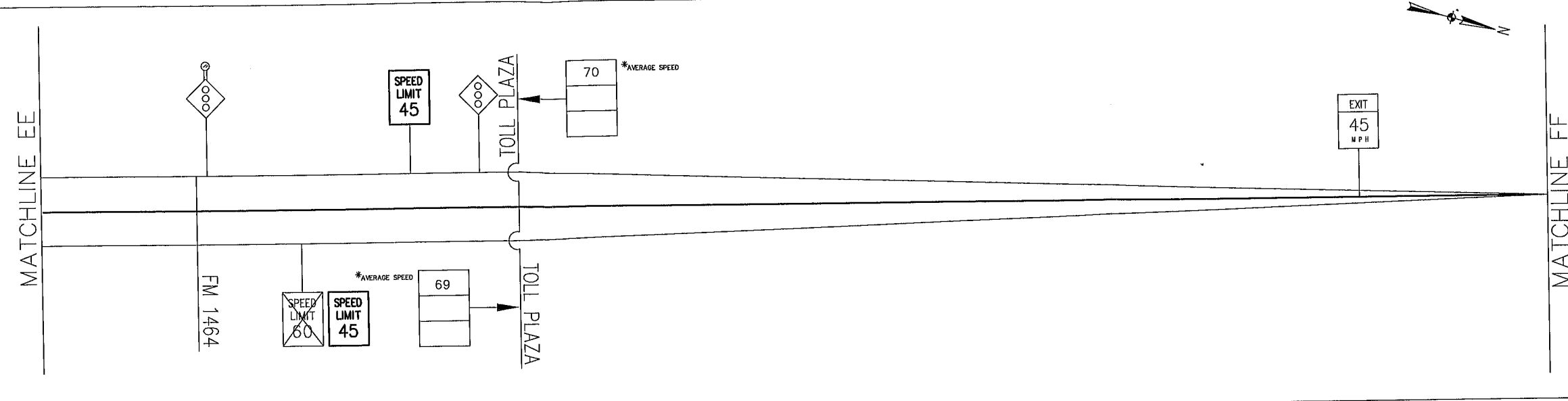
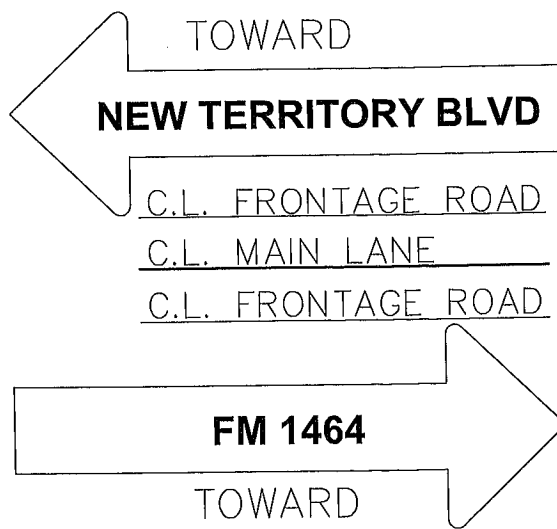
SPEED ZONE

GRAND PARKWAY
FROM US 59 TO S. FRY ROAD

STRIP MAP

SEE APPENDIX A FOR CRASH DENSITY MAP ALONG CORRIDOR

DEVELOPMENT		UNDEVELOPED
RES. SIGHT DISTANCE		
BALL BANK OR ADVISORY SPEED		
CURVES OVER 2°		
GRADES OVER 3%		
SUR. WIDTH AND TYPE		
R.O.W. AND RDBD. WIDTH		
FRONTAGE ROAD AND RAMP ACCIDENTS		
FRONTAGE ROAD ZONE LENGTHS	MILE	2 LANE
FRONTAGE ROAD ZONE SPEEDS	MPH	45 MPH
MAIN LANE ACCIDENTS		
MAIN LANE ZONE LENGTHS	MILE	2 LANE
MAIN LANE ZONE SPEEDS	MPH	65 MPH
		TAPER TO MAIN LANE



MAIN LANE ZONE SPEEDS	MPH	65 MPH	2 LANE
MAIN LANE ZONE LENGTHS	MILE		
MAIN LANE ACCIDENTS			
FRONTAGE ROAD ZONE SPEEDS	MPH	45 MPH	TAPER TO MAIN LANE
FRONTAGE ROAD ZONE LENGTHS	MILE	2 LANE	
FRONTAGE ROAD AND RAMP ACCIDENTS			
R.O.W. AND RDBD. WIDTH			
SUR. WIDTH AND TYPE			
GRADES OVER 3%		BRIDGE	BRIDGE
CURVES OVER 2°			
BALL BANK OR ADVISORY SPEED			
RES. SIGHT DISTANCE			
DEVELOPMENT		UNDEVELOPED	

FORT BEND COUNTY, TEXAS

DATE OF SURVEY 12/21/2014 SCALE 1" = 300'

LIMITS OF ZONE

SECTION ONE		LENGTH	MILES	SECTION TWO		LENGTH	MILES
BEGINS	STA INTERSECTION CONT & SECT		PROJECT	BEGINS	STA INTERSECTION CONT & SECT		PROJECT
ENDS	STA INTERSECTION CONT & SECT		PROJECT	ENDS	STA INTERSECTION CONT & SECT		PROJECT

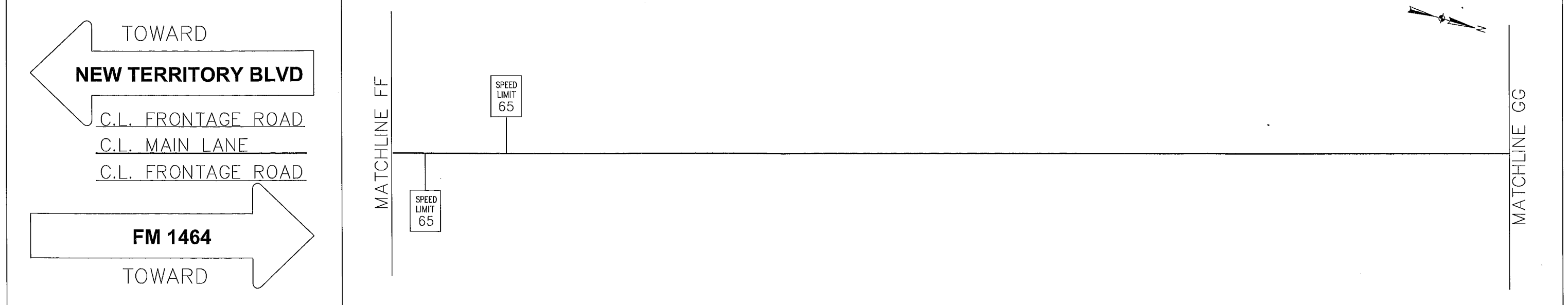
- ← [] 85 PERCENTILE SPEED
- [] TOP SPEED MEASURED
- [] NUMBER OF CARS CHECKED
- FATAL ACCIDENT
- ◐ PERSONAL INJURY ACCIDENT
- PROPERTY DAMAGE ACCIDENT

SPEED ZONE

GRAND PARKWAY
FROM US 59 TO S. FRY ROAD
STRIP MAP

SEE APPENDIX A FOR CRASH DENSITY MAP ALONG CORRIDOR

DEVELOPMENT		UNDEVELOPED
RES. SIGHT DISTANCE		
BALL BANK OR ADVISORY SPEED		
CURVES OVER 2°		
GRADES OVER 3%		
SUR. WIDTH AND TYPE		
R.O.W. AND RDBD. WIDTH		
FRONTAGE ROAD AND RAMP ACCIDENTS		
FRONTAGE ROAD ZONE LENGTHS MILE		
FRONTAGE ROAD ZONE SPEEDS MPH		
MAIN LANE ACCIDENTS		
MAIN LANE ZONE LENGTHS MILE		2 LANE
MAIN LANE ZONE SPEEDS MPH		65 MPH



MAIN LANE ZONE SPEEDS MPH		65 MPH
MAIN LANE ZONE LENGTHS MILE		2 LANE
MAIN LANE ACCIDENTS		
FRONTAGE ROAD ZONE SPEEDS MPH		
FRONTAGE ROAD ZONE LENGTHS MILE		
FRONTAGE ROAD AND RAMP ACCIDENTS		
R.O.W. AND RDBD. WIDTH		
SUR. WIDTH AND TYPE		
GRADES OVER 3%		
CURVES OVER 2°		
BALL BANK OR ADVISORY SPEED		
RES. SIGHT DISTANCE		
DEVELOPMENT		UNDEVELOPED

FORT BEND COUNTY, TEXAS			
DATE OF SURVEY 12/21/2014		SCALE 1" = 300'	
LIMITS OF ZONE			
SECTION ONE		SECTION TWO	
LENGTH	MILES	LENGTH	MILES
BEGINS	STA INTERSECTION CONT & SECT PROJECT	BEGINS	STA INTERSECTION CONT & SECT PROJECT
ENDS	STA INTERSECTION CONT & SECT PROJECT	ENDS	STA INTERSECTION CONT & SECT PROJECT

	<p>85 PERCENTILE SPEED TOP SPEED MEASURED NUMBER OF CARS CHECKED</p> <p>FATAL ACCIDENT</p> <p>PERSONAL INJURY ACCIDENT</p> <p>PROPERTY DAMAGE ACCIDENT</p>
--	--

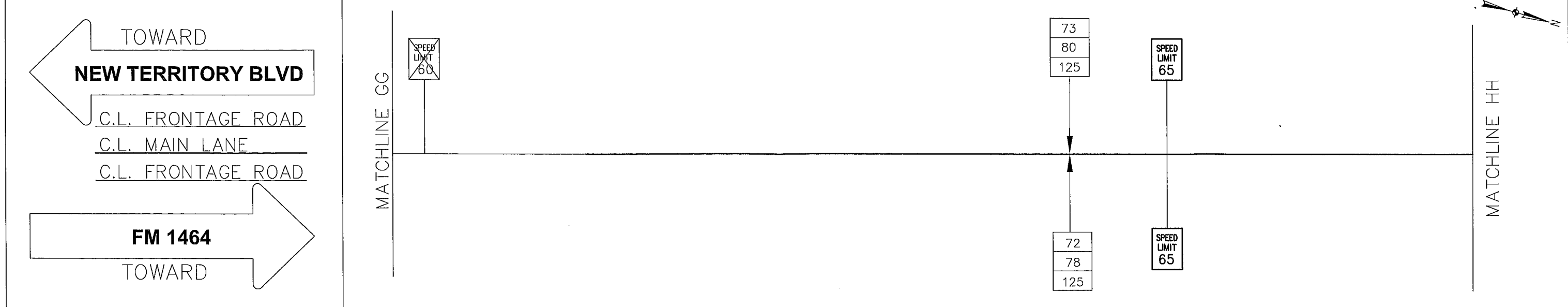
SPEED ZONE

GRAND PARKWAY
FROM US 59 TO S. FRY ROAD

STRIP MAP

SEE APPENDIX A FOR CRASH DENSITY MAP ALONG CORRIDOR

DEVELOPMENT		UNDEVELOPED
RES. SIGHT DISTANCE		
BALL BANK OR ADVISORY SPEED		
CURVES OVER 2°		
GRADES OVER 3%		
SUR. WIDTH AND TYPE		
R.O.W. AND RDBD. WIDTH		
FRONTAGE ROAD AND RAMP ACCIDENTS		
FRONTAGE ROAD ZONE LENGTHS	MILE	
FRONTAGE ROAD ZONE SPEEDS	MPH	
MAIN LANE ACCIDENTS		
MAIN LANE ZONE LENGTHS	MILE	2 LANE
MAIN LANE ZONE SPEEDS	MPH	65 MPH



MAIN LANE ZONE SPEEDS	MPH	65 MPH
MAIN LANE ZONE LENGTHS	MILE	2 LANE
MAIN LANE ACCIDENTS		
FRONTAGE ROAD ZONE SPEEDS	MPH	
FRONTAGE ROAD ZONE LENGTHS	MILE	
FRONTAGE ROAD AND RAMP ACCIDENTS		
R.O.W. AND RDBD. WIDTH		
SUR. WIDTH AND TYPE		
GRADES OVER 3%		
CURVES OVER 2°		
BALL BANK OR ADVISORY SPEED		
RES. SIGHT DISTANCE		
DEVELOPMENT		UNDEVELOPED

FORT BEND COUNTY, TEXAS					
DATE OF SURVEY		12/21/2014	SCALE		1" = 300'
LIMITS OF ZONE					
SECTION ONE			SECTION TWO		
	LENGTH	MILES	LENGTH	MILES	
BEGINS	STA INTERSECTION CONT & SECT	PROJECT	BEGINS	STA INTERSECTION CONT & SECT	PROJECT
ENDS	STA INTERSECTION CONT & SECT	PROJECT	ENDS	STA INTERSECTION CONT & SECT	PROJECT

SPEED ZONE

GRAND PARKWAY
FROM US 59 TO S. FRY ROAD

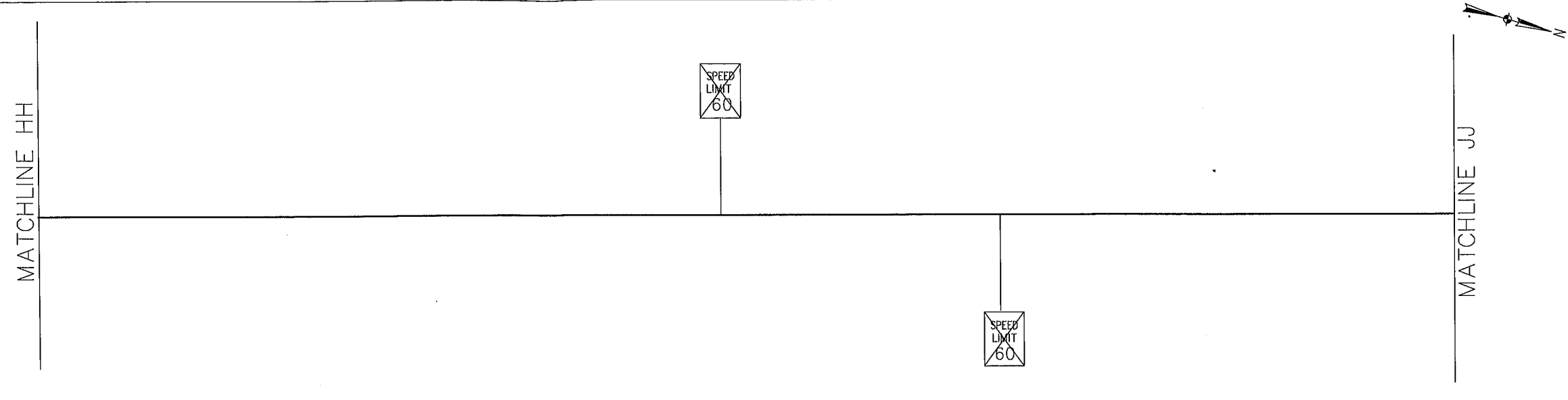
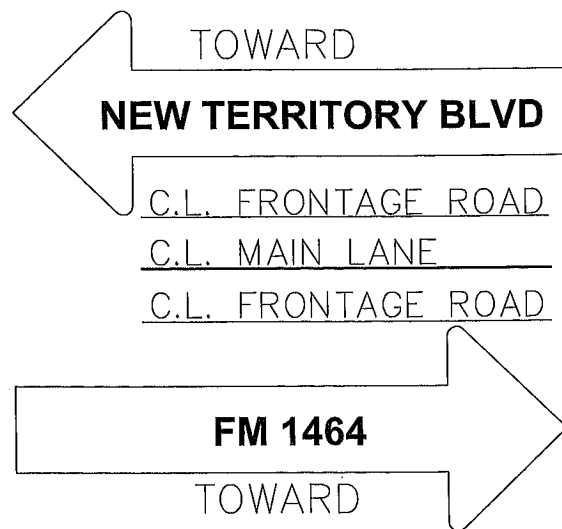
STRIP MAP

SEE APPENDIX A FOR CRASH DENSITY MAP ALONG CORRIDOR

85 PERCENTILE SPEED
 TOP SPEED MEASURED
 NUMBER OF CARS CHECKED

FATAL ACCIDENT
 PERSONAL INJURY ACCIDENT
 PROPERTY DAMAGE ACCIDENT

DEVELOPMENT		UNDEVELOPED
RES. SIGHT DISTANCE		
BALL BANK OR ADVISORY SPEED		
CURVES OVER 2°		
GRADES OVER 3%		
SUR. WIDTH AND TYPE		
R.O.W. AND RDBD. WIDTH		
FRONTAGE ROAD AND RAMP ACCIDENTS		
FRONTAGE ROAD ZONE LENGTHS MILE		
FRONTAGE ROAD ZONE SPEEDS MPH		
MAIN LANE ACCIDENTS		
MAIN LANE ZONE LENGTHS MILE		2 LANE
MAIN LANE ZONE SPEEDS MPH		65 MPH



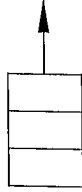



MAIN LANE ZONE SPEEDS MPH		65 MPH
MAIN LANE ZONE LENGTHS MILE		2 LANE
MAIN LANE ACCIDENTS		
FRONTAGE ROAD ZONE SPEEDS MPH		
FRONTAGE ROAD ZONE LENGTHS MILE		
FRONTAGE ROAD AND RAMP ACCIDENTS		
R.O.W. AND RDBD. WIDTH		
SUR. WIDTH AND TYPE		
GRADES OVER 3%		
CURVES OVER 2°		
BALL BANK OR ADVISORY SPEED		
RES. SIGHT DISTANCE		
DEVELOPMENT		UNDEVELOPED

FORT BEND COUNTY, TEXAS

DATE OF SURVEY **12/21/2014** SCALE **1" = 300'**

LIMITS OF ZONE

SECTION ONE			SECTION TWO		
BEGINS	LENGTH	MILES	BEGINS	LENGTH	MILES
STA INTERSECTION CONT & SECT		PROJECT	STA INTERSECTION CONT & SECT		PROJECT
ENDS			ENDS		
STA INTERSECTION CONT & SECT		PROJECT	STA INTERSECTION CONT & SECT		PROJECT

-  85 PERCENTILE SPEED
TOP SPEED MEASURED
NUMBER OF CARS CHECKED
-  FATAL ACCIDENT
-  PERSONAL INJURY ACCIDENT
-  PROPERTY DAMAGE ACCIDENT

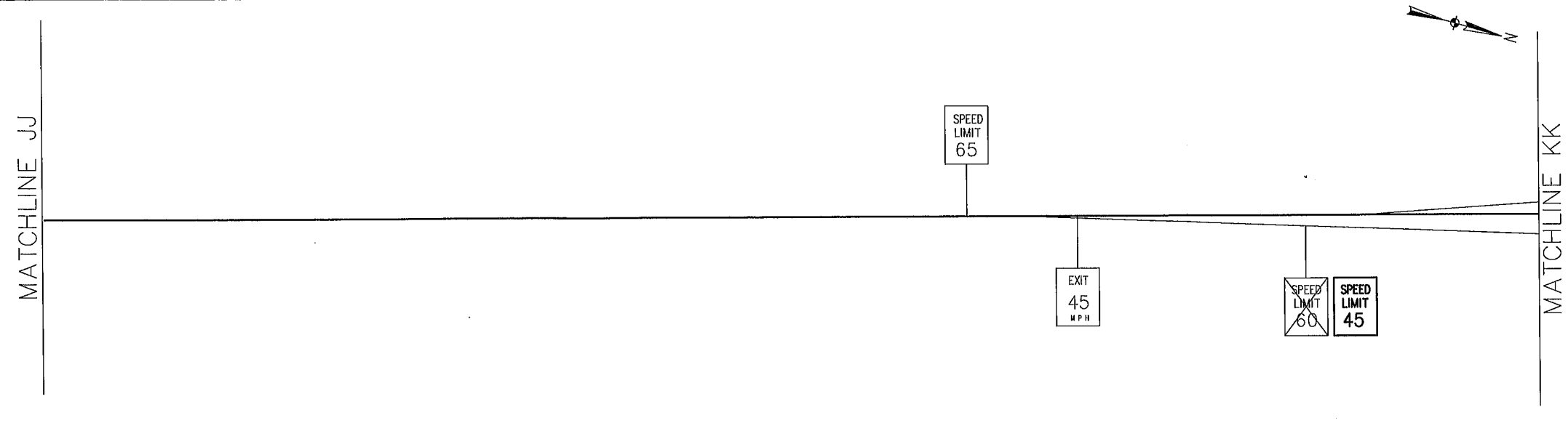
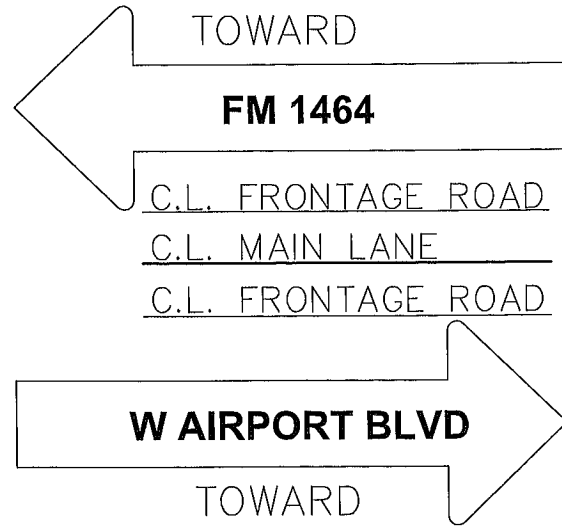
SPEED ZONE

GRAND PARKWAY
FROM US 59 TO S. FRY ROAD

STRIP MAP

SEE APPENDIX A FOR CRASH DENSITY MAP ALONG CORRIDOR

DEVELOPMENT		UNDEVELOPED
RES. SIGHT DISTANCE		
BALL BANK OR ADVISORY SPEED		
CURVES OVER 2°		
GRADES OVER 3%	BRIDGE	
SUR. WIDTH AND TYPE		
R.O.W. AND RDBD. WIDTH		
FRONTAGE ROAD AND RAMP ACCIDENTS		
FRONTAGE ROAD ZONE LENGTHS	MILE	1 LANE
FRONTAGE ROAD ZONE SPEEDS	MPH	45 MPH
MAIN LANE ACCIDENTS		
MAIN LANE ZONE LENGTHS	MILE	2 LANE
MAIN LANE ZONE SPEEDS	MPH	65 MPH



MAIN LANE ZONE SPEEDS	MPH	65 MPH
MAIN LANE ZONE LENGTHS	MILE	2 LANE
MAIN LANE ACCIDENTS		
FRONTAGE ROAD ZONE SPEEDS	MPH	45 MPH
FRONTAGE ROAD ZONE LENGTHS	MILE	1 LANE
FRONTAGE ROAD AND RAMP ACCIDENTS		
R.O.W. AND RDBD. WIDTH		
SUR. WIDTH AND TYPE		
GRADES OVER 3%	BRIDGE	
CURVES OVER 2°		
BALL BANK OR ADVISORY SPEED		
RES. SIGHT DISTANCE		
DEVELOPMENT		UNDEVELOPED

FORT BEND COUNTY, TEXAS

DATE OF SURVEY **12/21/2014** SCALE **1" = 300'**

LIMITS OF ZONE

SECTION ONE		LENGTH	MILES	SECTION TWO		LENGTH	MILES
BEGINS	STA INTERSECTION CONT & SECT		PROJECT	BEGINS	STA INTERSECTION CONT & SECT		PROJECT
ENDS	STA INTERSECTION CONT & SECT		PROJECT	ENDS	STA INTERSECTION CONT & SECT		PROJECT

- ← [] 85 PERCENTILE SPEED
- [] TOP SPEED MEASURED
- [] NUMBER OF CARS CHECKED
- FATAL ACCIDENT
- ◐ PERSONAL INJURY ACCIDENT
- PROPERTY DAMAGE ACCIDENT

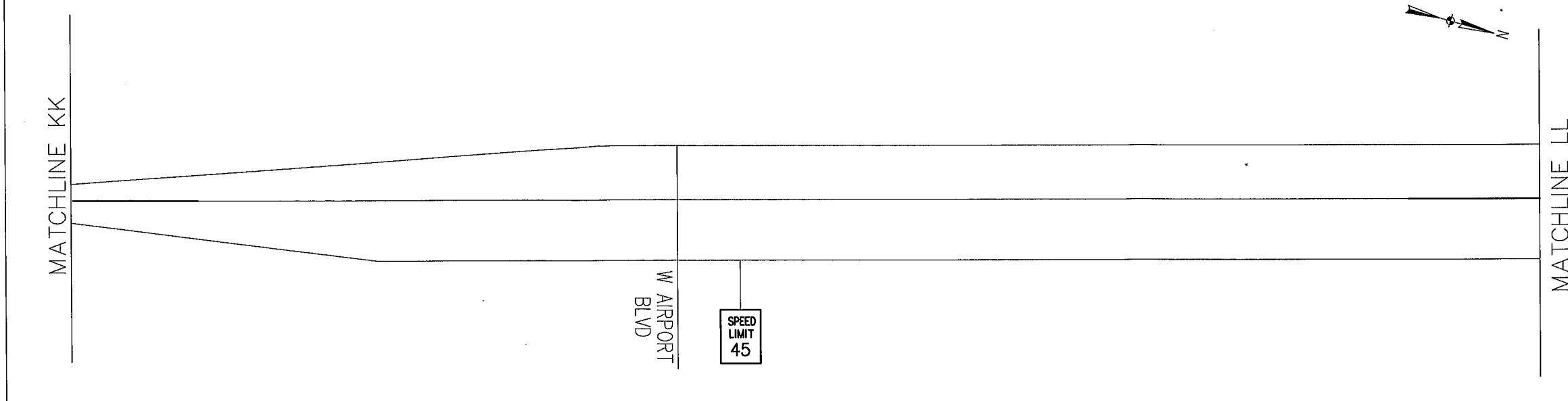
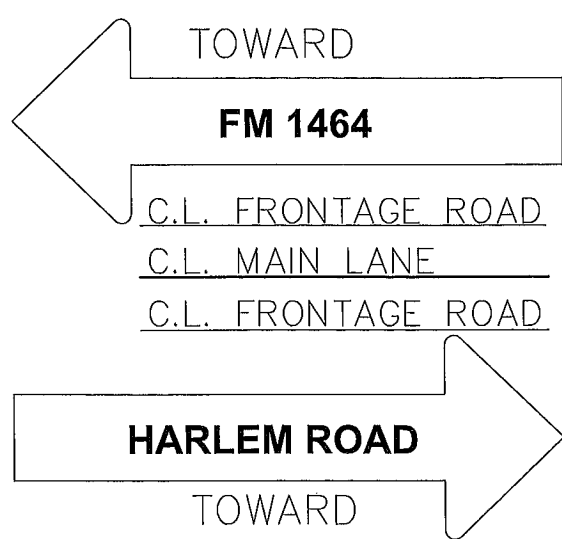
SPEED ZONE

GRAND PARKWAY
FROM US 59 TO S. FRY ROAD

STRIP MAP

SEE APPENDIX A FOR CRASH DENSITY MAP ALONG CORRIDOR

DEVELOPMENT			UNDEVELOPED
RES. SIGHT DISTANCE			
BALL BANK OR ADVISORY SPEED			
CURVES OVER 2°			
GRADES OVER 3%			BRIDGE
SUR. WIDTH AND TYPE			
R.O.W. AND RDBD. WIDTH			
FRONTAGE ROAD AND RAMP ACCIDENTS			
FRONTAGE ROAD ZONE LENGTHS MILE	1 LANE	2 LANE	
FRONTAGE ROAD ZONE SPEEDS MPH			45 MPH
MAIN LANE ACCIDENTS			
MAIN LANE ZONE LENGTHS MILE		2 LANE	
MAIN LANE ZONE SPEEDS MPH		65 MPH	



MAIN LANE ZONE SPEEDS MPH		65 MPH
MAIN LANE ZONE LENGTHS MILE		2 LANE
MAIN LANE ACCIDENTS		
FRONTAGE ROAD ZONE SPEEDS MPH		45 MPH
FRONTAGE ROAD ZONE LENGTHS MILE	1 LANE	2 LANE
FRONTAGE ROAD AND RAMP ACCIDENTS		
R.O.W. AND RDBD. WIDTH		
SUR. WIDTH AND TYPE		
GRADES OVER 3%		BRIDGE
CURVES OVER 2°		
BALL BANK OR ADVISORY SPEED		
RES. SIGHT DISTANCE		
DEVELOPMENT		UNDEVELOPED

FORT BEND COUNTY, TEXAS

DATE OF SURVEY 12/21/2014 SCALE 1" = 300'

LIMITS OF ZONE

SECTION ONE			SECTION TWO		
BEGINS	LENGTH	MILES	BEGINS	LENGTH	MILES
STA INTERSECTION CONT & SECT		PROJECT	STA INTERSECTION CONT & SECT		PROJECT
ENDS			ENDS		
STA INTERSECTION CONT & SECT		PROJECT	STA INTERSECTION CONT & SECT		PROJECT

- ← [] 85 PERCENTILE SPEED
- [] TOP SPEED MEASURED
- [] NUMBER OF CARS CHECKED
- FATAL ACCIDENT
- ◐ PERSONAL INJURY ACCIDENT
- PROPERTY DAMAGE ACCIDENT

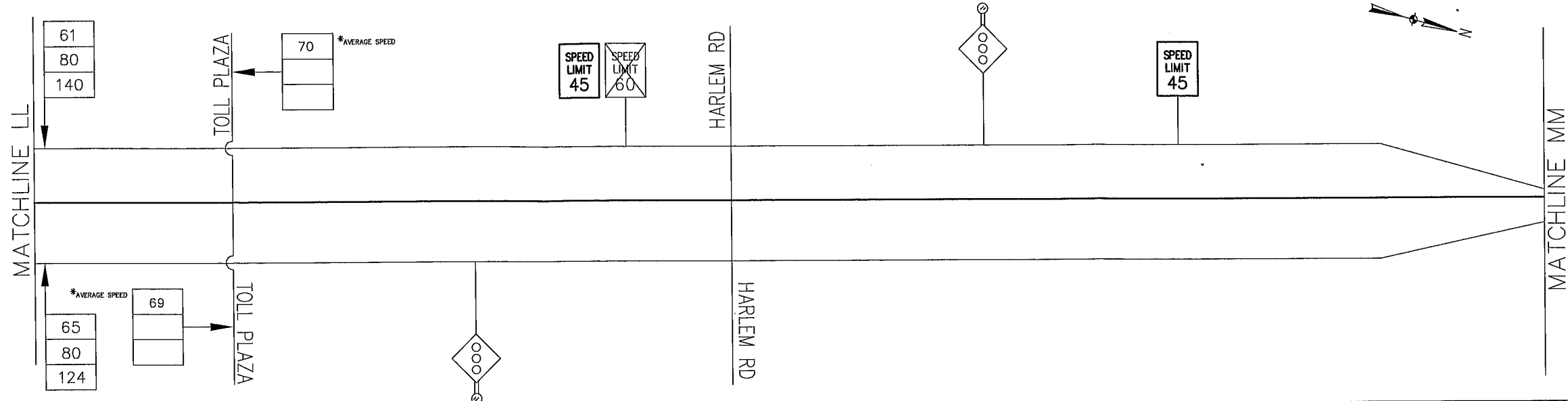
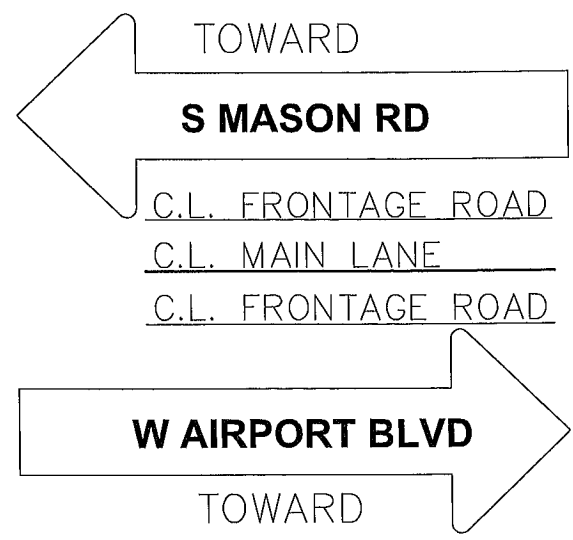
SPEED ZONE

GRAND PARKWAY
FROM US 59 TO S. FRY ROAD

STRIP MAP

SEE APPENDIX A FOR CRASH DENSITY MAP ALONG CORRIDOR

DEVELOPMENT					UNDEVELOPED
RES. SIGHT DISTANCE					
BALL BANK OR ADVISORY SPEED					
CURVES OVER 2°				CURVE	
GRADES OVER 3%				BRIDGE	
SUR. WIDTH AND TYPE					
R.O.W. AND RDBD. WIDTH					
FRONTAGE ROAD AND RAMP ACCIDENTS					
FRONTAGE ROAD ZONE LENGTHS	MILE		2 LANE	3 LANE	2 LANE 1 LANE
FRONTAGE ROAD ZONE SPEEDS	MPH			45 MPH	
MAIN LANE ACCIDENTS					
MAIN LANE ZONE LENGTHS	MILE			2 LANE	
MAIN LANE ZONE SPEEDS	MPH			65 MPH	



MAIN LANE ZONE SPEEDS	MPH				65 MPH
MAIN LANE ZONE LENGTHS	MILE				2 LANE
MAIN LANE ACCIDENTS					
FRONTAGE ROAD ZONE SPEEDS	MPH				45 MPH
FRONTAGE ROAD ZONE LENGTHS	MILE		2 LANE	3 LANE	2 LANE 1 LANE
FRONTAGE ROAD AND RAMP ACCIDENTS					
R.O.W. AND RDBD. WIDTH					
SUR. WIDTH AND TYPE				BRIDGE	
GRADES OVER 3%					
CURVES OVER 2°				CURVE	
BALL BANK OR ADVISORY SPEED					
RES. SIGHT DISTANCE					
DEVELOPMENT					UNDEVELOPED

FORT BEND COUNTY, TEXAS

DATE OF SURVEY **12/21/2014** SCALE **1" = 300'**

LIMITS OF ZONE

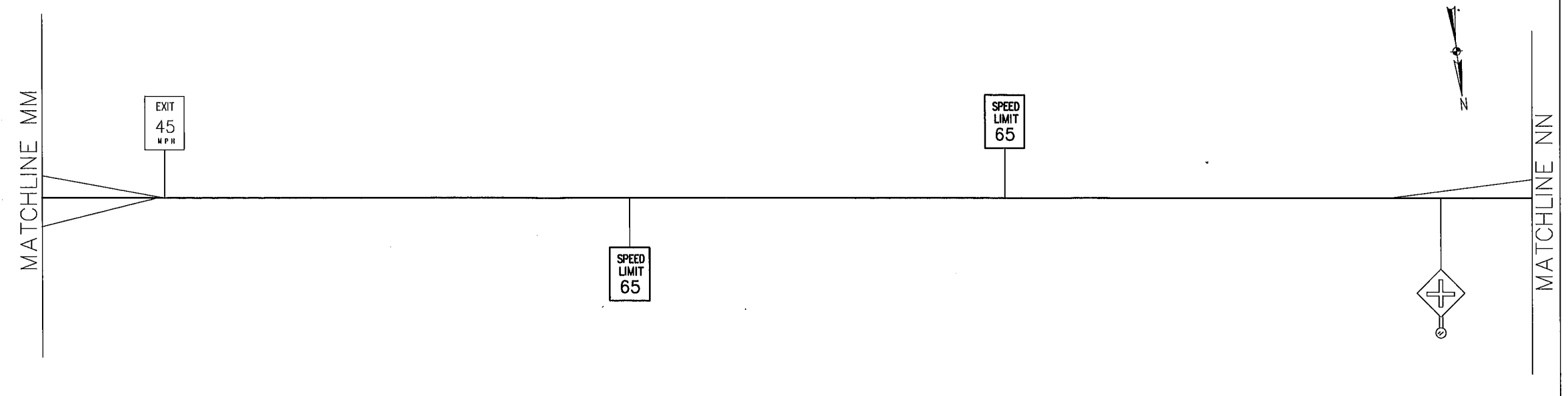
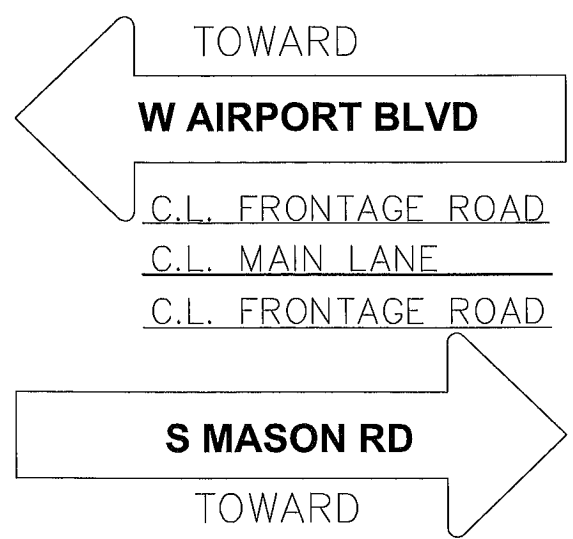
SECTION ONE		LENGTH	MILES	SECTION TWO		LENGTH	MILES
BEGINS	STA INTERSECTION CONT & SECT		PROJECT	BEGINS	STA INTERSECTION CONT & SECT		PROJECT
ENDS	STA INTERSECTION CONT & SECT		PROJECT	ENDS	STA INTERSECTION CONT & SECT		PROJECT

- 85 PERCENTILE SPEED
TOP SPEED MEASURED
NUMBER OF CARS CHECKED
- FATAL ACCIDENT
- PERSONAL INJURY ACCIDENT
- PROPERTY DAMAGE ACCIDENT

SPEED ZONE
GRAND PARKWAY
FROM US 59 TO S. FRY ROAD
STRIP MAP

SEE APPENDIX A FOR CRASH DENSITY MAP ALONG CORRIDOR

DEVELOPMENT		UNDEVELOPED		RESIDENTIAL
RES. SIGHT DISTANCE				
BALL BANK OR ADVISORY SPEED				
CURVES OVER 2°				
GRADES OVER 3%				
SUR. WIDTH AND TYPE				
R.O.W. AND RDBD. WIDTH				
FRONTAGE ROAD AND RAMP ACCIDENTS				
FRONTAGE ROAD ZONE LENGTHS	MILE	1 LANE		1 LANE
FRONTAGE ROAD ZONE SPEEDS	MPH	45 MPH		45 MPH
MAIN LANE ACCIDENTS				
MAIN LANE ZONE LENGTHS	MILE		2 LANE	
MAIN LANE ZONE SPEEDS	MPH		65 MPH	



MAIN LANE ZONE SPEEDS	MPH		65 MPH
MAIN LANE ZONE LENGTHS	MILE		2 LANE
MAIN LANE ACCIDENTS			
FRONTAGE ROAD ZONE SPEEDS	MPH	45 MPH	
FRONTAGE ROAD ZONE LENGTHS	MILE	1 LANE	
FRONTAGE ROAD AND RAMP ACCIDENTS			
R.O.W. AND RDBD. WIDTH			
SUR. WIDTH AND TYPE			
GRADES OVER 3%			
CURVES OVER 2°			
BALL BANK OR ADVISORY SPEED			
RES. SIGHT DISTANCE			
DEVELOPMENT		UNDEVELOPED	RESIDENTIAL

FORT BEND COUNTY, TEXAS

DATE OF SURVEY **12/21/2014** SCALE **1" = 300'**

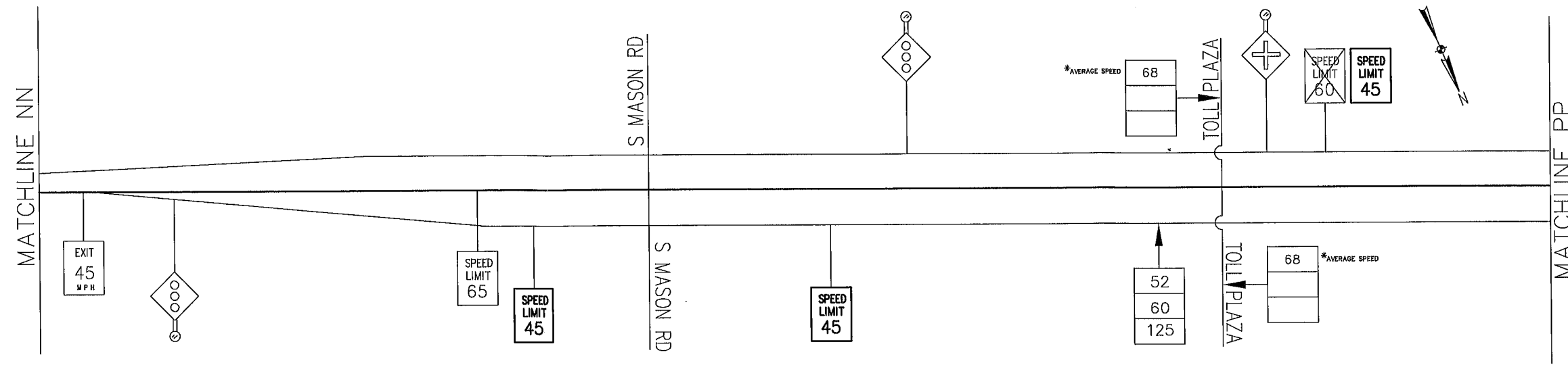
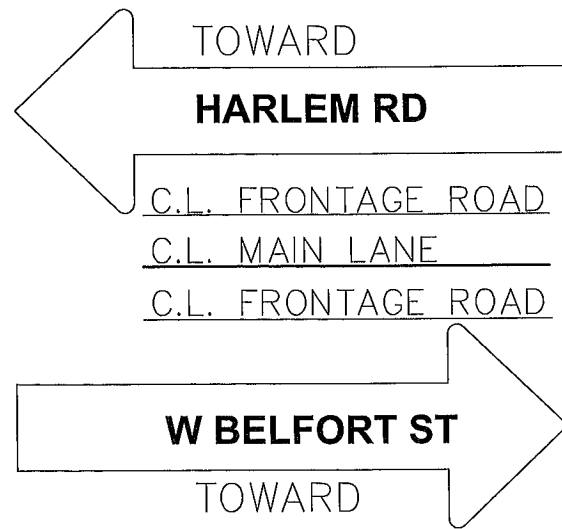
LIMITS OF ZONE					
SECTION ONE			SECTION TWO		
BEGINS	LENGTH	MILES	BEGINS	LENGTH	MILES
STA INTERSECTION CONT & SECT		PROJECT	STA INTERSECTION CONT & SECT		PROJECT
ENDS			ENDS		
STA INTERSECTION CONT & SECT		PROJECT	STA INTERSECTION CONT & SECT		PROJECT

- ← [] 85 PERCENTILE SPEED
- [] TOP SPEED MEASURED
- [] NUMBER OF CARS CHECKED
- FATAL ACCIDENT
- ◐ PERSONAL INJURY ACCIDENT
- PROPERTY DAMAGE ACCIDENT

SPEED ZONE
GRAND PARKWAY
FROM US 59 TO S. FRY ROAD
STRIP MAP

SEE APPENDIX A FOR CRASH DENSITY MAP ALONG CORRIDOR

DEVELOPMENT		RESIDENTIAL	COMMERCIAL	UNDEVELOPED
RES. SIGHT DISTANCE				
BALL BANK OR ADVISORY SPEED				CURVE
CURVES OVER 2°			BRIDGE	
GRADES OVER 3%				
SUR. WIDTH AND TYPE				
R.O.W. AND RDBD. WIDTH				
FRONTAGE ROAD AND RAMP ACCIDENTS				
FRONTAGE ROAD ZONE LENGTHS MILE		2 LANE	3 LANE	2 LANE
FRONTAGE ROAD ZONE SPEEDS MPH				45 MPH
MAIN LANE ACCIDENTS				
MAIN LANE ZONE LENGTHS MILE			2 LANE	
MAIN LANE ZONE SPEEDS MPH			65 MPH	



MAIN LANE ZONE SPEEDS MPH			65 MPH	
MAIN LANE ZONE LENGTHS MILE			2 LANE	
MAIN LANE ACCIDENTS				
FRONTAGE ROAD ZONE SPEEDS MPH				45 MPH
FRONTAGE ROAD ZONE LENGTHS MILE		2 LANE	3 LANE	2 LANE
FRONTAGE ROAD AND RAMP ACCIDENTS				
R.O.W. AND RDBD. WIDTH				
SUR. WIDTH AND TYPE			BRIDGE	
GRADES OVER 3%				CURVE
CURVES OVER 2°				
BALL BANK OR ADVISORY SPEED				
RES. SIGHT DISTANCE				
DEVELOPMENT		RESIDENTIAL	UNDEVELOPED	COMMERCIAL

FORT BEND COUNTY, TEXAS

DATE OF SURVEY **12/21/2014** SCALE **1" = 300'**

LIMITS OF ZONE

SECTION ONE		LENGTH	MILES	SECTION TWO		LENGTH	MILES
BEGINS	STA INTERSECTION CONT & SECT		PROJECT	BEGINS	STA INTERSECTION CONT & SECT		PROJECT
ENDS	STA INTERSECTION CONT & SECT		PROJECT	ENDS	STA INTERSECTION CONT & SECT		PROJECT

- 85 PERCENTILE SPEED
TOP SPEED MEASURED
NUMBER OF CARS CHECKED
- FATAL ACCIDENT
- PERSONAL INJURY ACCIDENT
- PROPERTY DAMAGE ACCIDENT

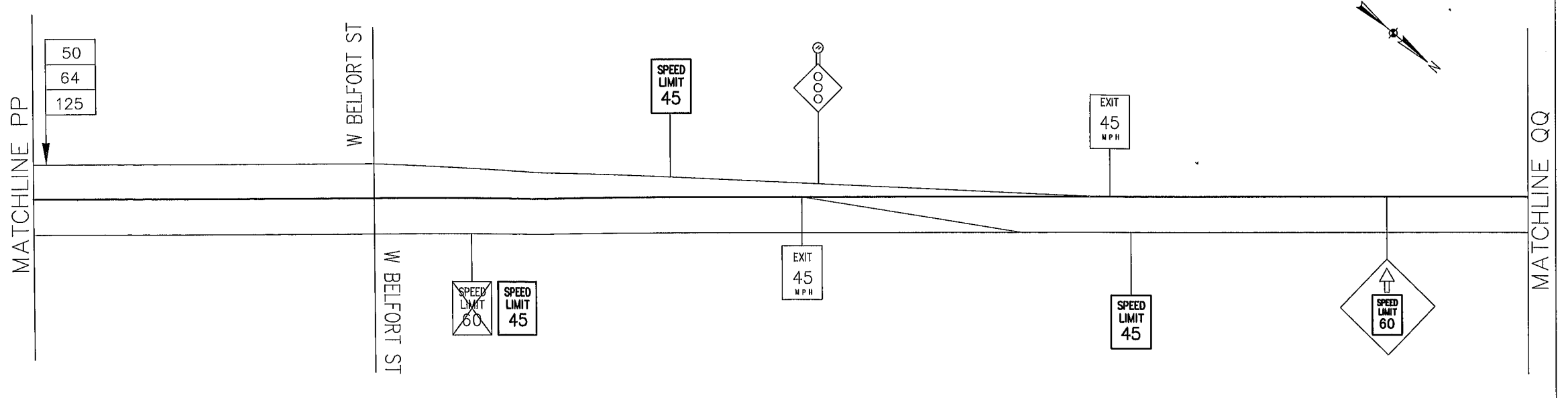
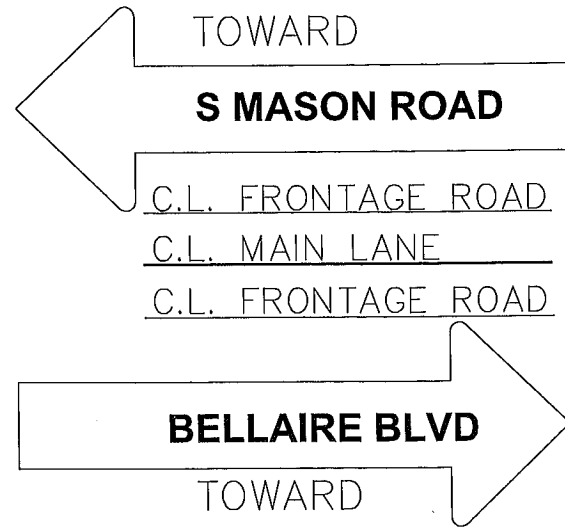
SPEED ZONE

GRAND PARKWAY
FROM US 59 TO S. FRY ROAD

STRIP MAP

SEE APPENDIX A FOR CRASH DENSITY MAP ALONG CORRIDOR

DEVELOPMENT		COMMERCIAL		RESIDENTIAL
RES. SIGHT DISTANCE				
BALL BANK OR ADVISORY SPEED				
CURVES OVER 2°				
GRADES OVER 3%			BRIDGE	
SUR. WIDTH AND TYPE				
R.O.W. AND RDBD. WIDTH				
FRONTAGE ROAD AND RAMP ACCIDENTS		2 LANE	3 LANE	2 LANE
FRONTAGE ROAD ZONE LENGTHS MILE				
FRONTAGE ROAD ZONE SPEEDS MPH			45 MPH	
MAIN LANE ACCIDENTS				
MAIN LANE ZONE LENGTHS MILE			2 LANE	
MAIN LANE ZONE SPEEDS MPH		65 MPH		60 MPH



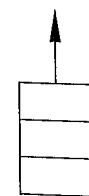
MAIN LANE ZONE SPEEDS MPH				65 MPH
MAIN LANE ZONE LENGTHS MILE				2 LANE
MAIN LANE ACCIDENTS				
FRONTAGE ROAD ZONE SPEEDS MPH			45 MPH	
FRONTAGE ROAD ZONE LENGTHS MILE		2 LANE	3 LANE	2 LANE
FRONTAGE ROAD AND RAMP ACCIDENTS				
R.O.W. AND RDBD. WIDTH				
SUR. WIDTH AND TYPE			BRIDGE	
GRADES OVER 3%				
CURVES OVER 2°				
BALL BANK OR ADVISORY SPEED				
RES. SIGHT DISTANCE				
DEVELOPMENT				UNDEVELOPED

FORT BEND COUNTY, TEXAS

DATE OF SURVEY **12/21/2014** SCALE **1" = 300'**

LIMITS OF ZONE

SECTION ONE		LENGTH	MILES	SECTION TWO		LENGTH	MILES
BEGINS	STA INTERSECTION CONT & SECT		PROJECT	BEGINS	STA INTERSECTION CONT & SECT		PROJECT
ENDS	STA INTERSECTION CONT & SECT		PROJECT	ENDS	STA INTERSECTION CONT & SECT		PROJECT



85 PERCENTILE SPEED
TOP SPEED MEASURED
NUMBER OF CARS CHECKED



FATAL ACCIDENT



PERSONAL INJURY ACCIDENT



PROPERTY DAMAGE ACCIDENT

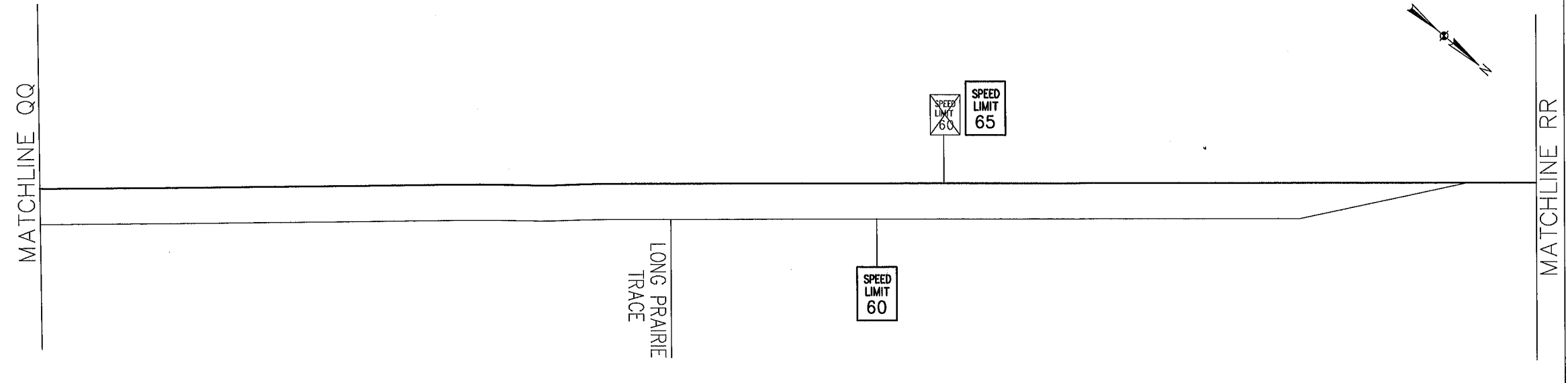
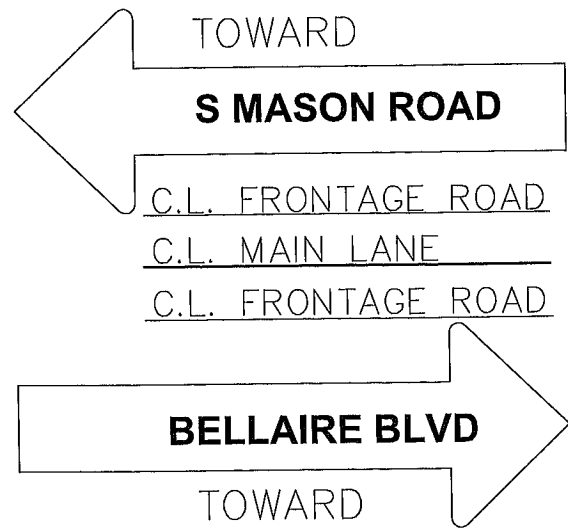
SPEED ZONE

GRAND PARKWAY
FROM US 59 TO S. FRY ROAD

' STRIP MAP

SEE APPENDIX A FOR CRASH DENSITY MAP ALONG CORRIDOR

DEVELOPMENT		RESIDENTIAL
RES. SIGHT DISTANCE		
BALL BANK OR ADVISORY SPEED		
CURVES OVER 2°		
GRADES OVER 3%		
SUR. WIDTH AND TYPE		
R.O.W. AND RDBD. WIDTH		
FRONTAGE ROAD AND RAMP ACCIDENTS		
FRONTAGE ROAD ZONE LENGTHS MILE		
FRONTAGE ROAD ZONE SPEEDS MPH		
MAIN LANE ACCIDENTS		2 LANE
MAIN LANE ZONE LENGTHS MILE		
MAIN LANE ZONE SPEEDS MPH		



MAIN LANE ZONE SPEEDS MPH	65 MPH	2 LANE	60 MPH
MAIN LANE ZONE LENGTHS MILE			
MAIN LANE ACCIDENTS			
FRONTAGE ROAD ZONE SPEEDS MPH	45 MPH	2 LANE	1 LANE
FRONTAGE ROAD ZONE LENGTHS MILE			
FRONTAGE ROAD AND RAMP ACCIDENTS			
R.O.W. AND RDBD. WIDTH			
SUR. WIDTH AND TYPE			
GRADES OVER 3%			
CURVES OVER 2°			
BALL BANK OR ADVISORY SPEED			
RES. SIGHT DISTANCE			
DEVELOPMENT	COMMERCIAL	UNDEVELOPED	APARTMENTS
			UNDEVELOPED

FORT BEND COUNTY, TEXAS

DATE OF SURVEY **12/21/2014** SCALE **1" = 300'**

LIMITS OF ZONE

SECTION ONE		LENGTH	MILES	SECTION TWO		LENGTH	MILES
BEGINS	STA INTERSECTION CONT & SECT		PROJECT	BEGINS	STA INTERSECTION CONT & SECT		PROJECT
ENDS	STA INTERSECTION CONT & SECT		PROJECT	ENDS	STA INTERSECTION CONT & SECT		PROJECT

- 85 PERCENTILE SPEED
TOP SPEED MEASURED
NUMBER OF CARS CHECKED
- FATAL ACCIDENT
- PERSONAL INJURY ACCIDENT
- PROPERTY DAMAGE ACCIDENT

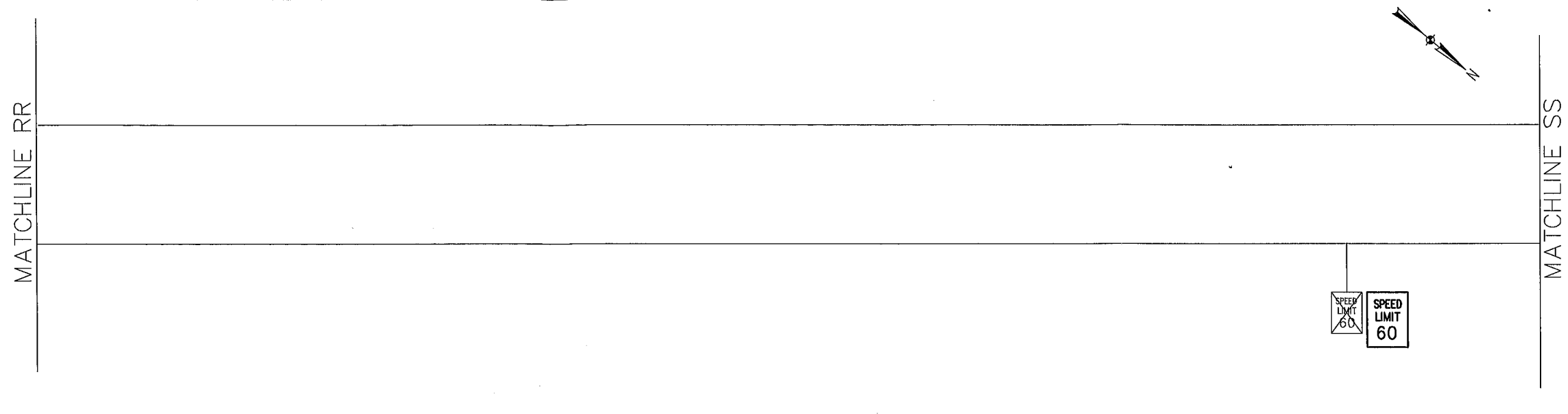
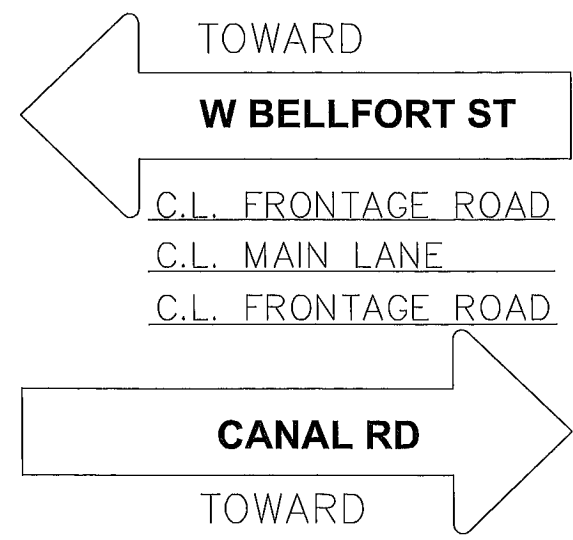
SPEED ZONE

GRAND PARKWAY
FROM US 59 TO S. FRY ROAD

STRIP MAP

SEE APPENDIX A FOR CRASH DENSITY MAP ALONG CORRIDOR

DEVELOPMENT	RESIDENTIAL	UNDEVELOPED
RES. SIGHT DISTANCE		
BALL BANK OR ADVISORY SPEED		
CURVES OVER 2°		CURVE
GRADES OVER 3%		
SUR. WIDTH AND TYPE		
R.O.W. AND RDBD. WIDTH		
FRONTAGE ROAD AND RAMP ACCIDENTS		
FRONTAGE ROAD ZONE LENGTHS MILE	2 LANE	3 LANE 2 LANE
FRONTAGE ROAD ZONE SPEEDS MPH		45 MPH
MAIN LANE ACCIDENTS		
MAIN LANE ZONE LENGTHS MILE		
MAIN LANE ZONE SPEEDS MPH		



MAIN LANE ZONE SPEEDS MPH		
MAIN LANE ZONE LENGTHS MILE		
FREEWAY ROAD ACCIDENTS		
FRONTAGE ROAD ZONE SPEEDS MPH		45 MPH
FRONTAGE ROAD ZONE LENGTHS MILE	2 LANE	3 LANE 2 LANE
FRONTAGE ROAD AND RAMP ACCIDENTS		
R.O.W. AND RDBD. WIDTH		
SUR. WIDTH AND TYPE		
GRADES OVER 3%		
CURVES OVER 2°		CURVE
BALL BANK OR ADVISORY SPEED		
RES. SIGHT DISTANCE		
DEVELOPMENT	UNDEVELOPED	

FORT BEND COUNTY, TEXAS

DATE OF SURVEY **12/21/2014** SCALE **1" = 300'**

LIMITS OF ZONE

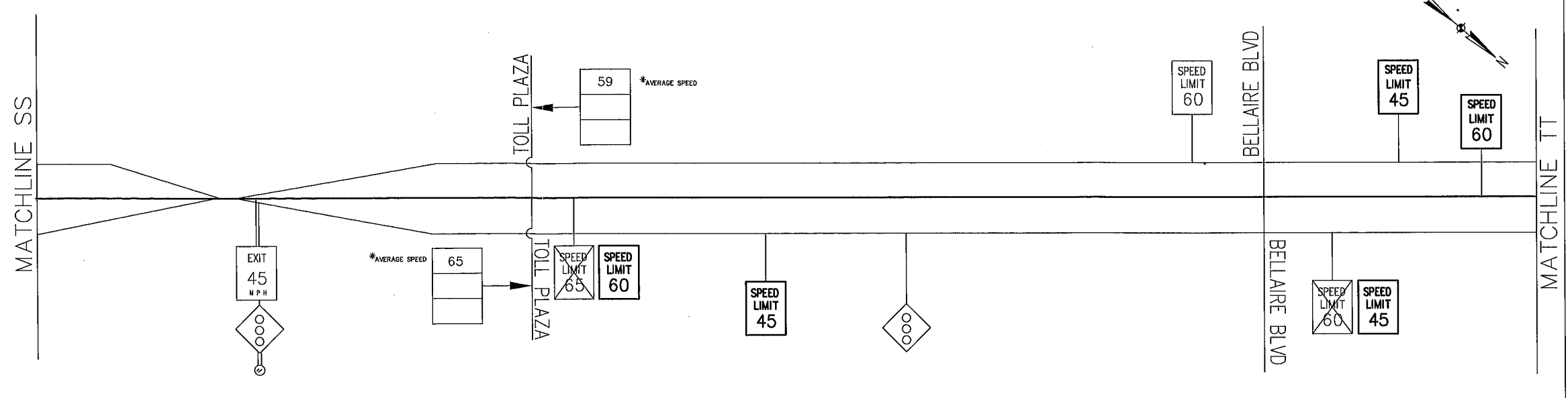
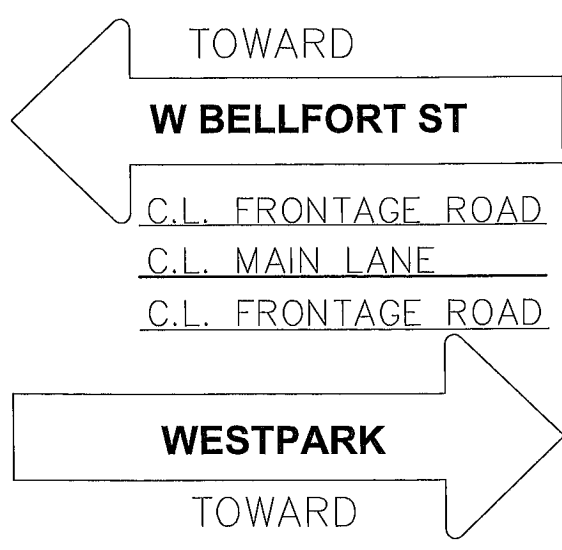
SECTION ONE			SECTION TWO		
BEGINS	LENGTH	MILES	BEGINS	LENGTH	MILES
STA INTERSECTION CONT & SECT	PROJECT		STA INTERSECTION CONT & SECT	PROJECT	
ENDS	STA INTERSECTION CONT & SECT	PROJECT	ENDS	STA INTERSECTION CONT & SECT	PROJECT

- 85 PERCENTILE SPEED
TOP SPEED MEASURED
NUMBER OF CARS CHECKED
- FATAL ACCIDENT
- PERSONAL INJURY ACCIDENT
- PROPERTY DAMAGE ACCIDENT

SPEED ZONE
GRAND PARKWAY
FROM US 59 TO S. FRY ROAD
STRIP MAP

SEE APPENDIX A FOR CRASH DENSITY MAP ALONG CORRIDOR

DEVELOPMENT		UNDEVELOPED			COMMERCIAL		
RES. SIGHT DISTANCE							
BALL BANK OR ADVISORY SPEED							
CURVES OVER 2°		[CURVE]					
GRADES OVER 3%		BRIDGE					
SUR. WIDTH AND TYPE							
R.O.W. AND RDBD. WIDTH							
FRONTAGE ROAD AND RAMP ACCIDENTS							
FRONTAGE ROAD ZONE LENGTHS	MILE	2 LANE	1 LANE		2 LANE	3 LANE	2 LANE
FRONTAGE ROAD ZONE SPEEDS	MPH	45 MPH					
MAIN LANE ACCIDENTS							
MAIN LANE ZONE LENGTHS	MILE	2 LANE					
MAIN LANE ZONE SPEEDS	MPH	60 MPH					



MAIN LANE ZONE SPEEDS	MPH	60 MPH					
MAIN LANE ZONE LENGTHS	MILE	2 LANE					
MAIN LANE ACCIDENTS							
FRONTAGE ROAD ZONE SPEEDS	MPH	45 MPH					
FRONTAGE ROAD ZONE LENGTHS	MILE	2 LANE	1 LANE		2 LANE	3 LANE	2 LANE
FRONTAGE ROAD AND RAMP ACCIDENTS							
R.O.W. AND RDBD. WIDTH							
SUR. WIDTH AND TYPE							
GRADES OVER 3%		BRIDGE					
CURVES OVER 2°		[CURVE]					
BALL BANK OR ADVISORY SPEED							
RES. SIGHT DISTANCE							
DEVELOPMENT		RESIDENTIAL			COMMERCIAL		

FORT BEND COUNTY, TEXAS

DATE OF SURVEY 12/21/2014 SCALE 1" = 300'

LIMITS OF ZONE

SECTION ONE		LENGTH	MILES	SECTION TWO		LENGTH	MILES
BEGINS	STA INTERSECTION CONT & SECT		PROJECT	BEGINS	STA INTERSECTION CONT & SECT		PROJECT
ENDS	STA INTERSECTION CONT & SECT		PROJECT	ENDS	STA INTERSECTION CONT & SECT		PROJECT

- ← [] 85 PERCENTILE SPEED
- [] TOP SPEED MEASURED
- [] NUMBER OF CARS CHECKED
- FATAL ACCIDENT
- ◐ PERSONAL INJURY ACCIDENT
- PROPERTY DAMAGE ACCIDENT

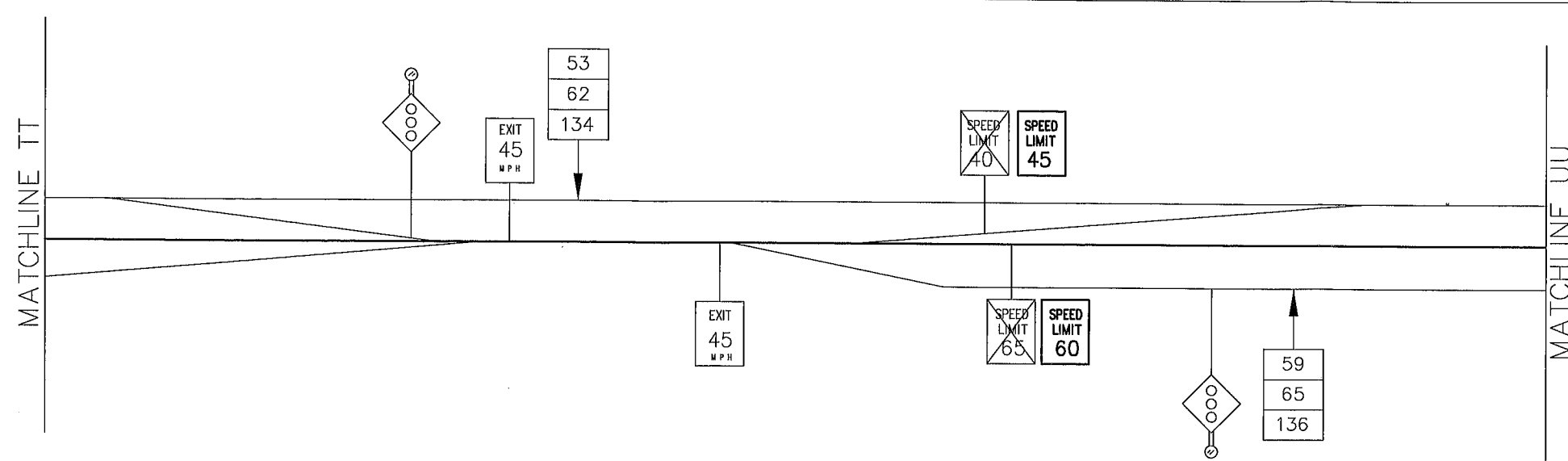
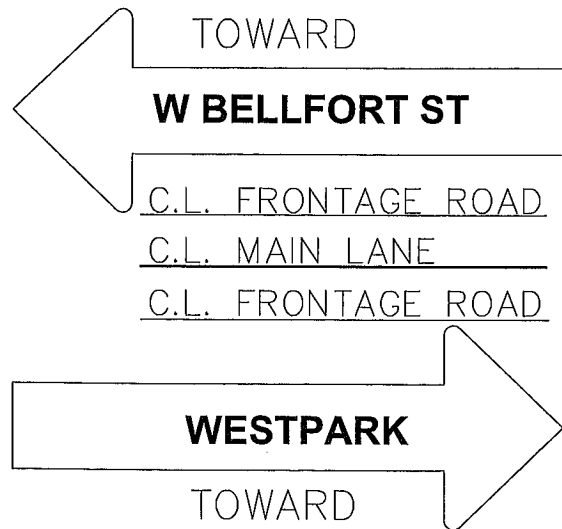
SPEED ZONE

GRAND PARKWAY
FROM US 59 TO S. FRY ROAD

STRIP MAP

SEE APPENDIX A FOR CRASH DENSITY MAP ALONG CORRIDOR

DEVELOPMENT		COMMERCIAL	
RES. SIGHT DISTANCE			
BALL BANK OR ADVISORY SPEED			
CURVES OVER 2°		CURVE	
GRADES OVER 3%			BRIDGE
SUR. WIDTH AND TYPE			
R.O.W. AND RDBD. WIDTH			
FRONTAGE ROAD AND RAMP ACCIDENTS			
FRONTAGE ROAD ZONE LENGTHS MILE		2 LANE	
FRONTAGE ROAD ZONE SPEEDS MPH	45 MPH	45 MPH	45 MPH
MAIN LANE ACCIDENTS			
MAIN LANE ZONE LENGTHS MILE		2 LANE	
MAIN LANE ZONE SPEEDS MPH		60 MPH	



MAIN LANE ZONE SPEEDS MPH		60 MPH	
MAIN LANE ZONE LENGTHS MILE			
MAIN LANE ACCIDENTS			
FRONTAGE ROAD ZONE SPEEDS MPH	45 MPH		45 MPH
FRONTAGE ROAD ZONE LENGTHS MILE		2 LANE	1 LANE
FRONTAGE ROAD AND RAMP ACCIDENTS			2 LANE
R.O.W. AND RDBD. WIDTH			
SUR. WIDTH AND TYPE			
GRADES OVER 3%			
CURVES OVER 2°		CURVE	BRIDGE
BALL BANK OR ADVISORY SPEED			
RES. SIGHT DISTANCE			
DEVELOPMENT		RESIDENTIAL	

FORT BEND COUNTY, TEXAS

DATE OF SURVEY 12/21/2014 SCALE 1" = 300'

LIMITS OF ZONE

SECTION ONE		LENGTH	MILES	SECTION TWO		LENGTH	MILES
BEGINS	STA INTERSECTION CONT & SECT		PROJECT	BEGINS	STA INTERSECTION CONT & SECT		PROJECT
ENDS	STA INTERSECTION CONT & SECT		PROJECT	ENDS	STA INTERSECTION CONT & SECT		PROJECT

- 85 PERCENTILE SPEED
TOP SPEED MEASURED
NUMBER OF CARS CHECKED
- FATAL ACCIDENT
- PERSONAL INJURY ACCIDENT
- PROPERTY DAMAGE ACCIDENT

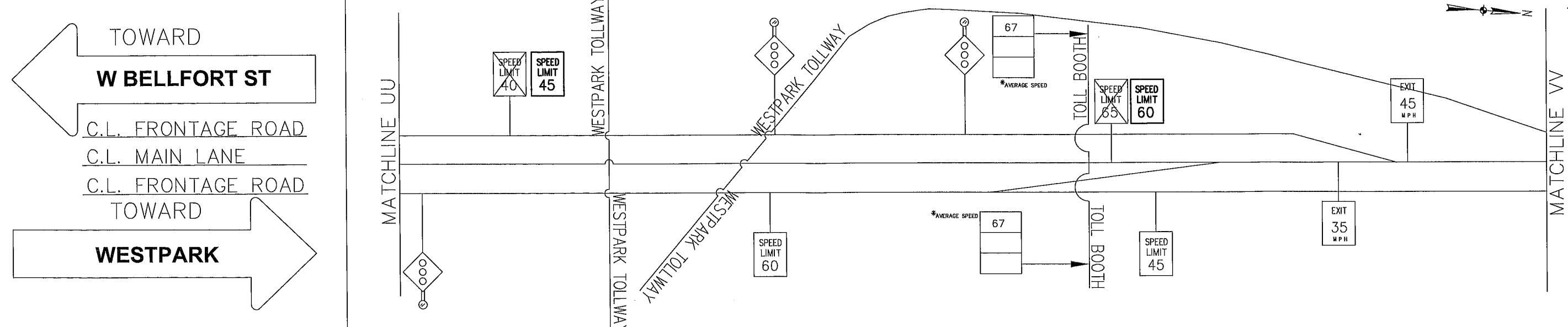
SPEED ZONE

GRAND PARKWAY
FROM US 59 TO S. FRY ROAD

STRIP MAP

SEE APPENDIX A FOR CRASH DENSITY MAP ALONG CORRIDOR

DEVELOPMENT		UNDEVELOPED		RESIDENTIAL
RES. SIGHT DISTANCE				
BALL BANK OR ADVISORY SPEED				
CURVES OVER 2°				
GRADES OVER 3%				
SUR. WIDTH AND TYPE				
R.O.W. AND RDBD. WIDTH				
FRONTAGE ROAD AND RAMP ACCIDENTS				
FRONTAGE ROAD ZONE LENGTHS	MILE	2 LANE	3 LANE	2 LANE 1 LANE 2 LANE
FRONTAGE ROAD ZONE SPEEDS	MPH			45 MPH
FREEWAY ROAD ACCIDENTS				
FREEWAY ZONE LENGTHS	MILE			2 LANE
FREEWAY ZONE SPEEDS	MPH			60 MPH



FREEWAY ZONE SPEEDS	MPH			60 MPH
FREEWAY ZONE LENGTHS	MILE			2 LANE
FREEWAY ROAD ACCIDENTS				
FRONTAGE ROAD ZONE SPEEDS	MPH			45 MPH
FRONTAGE ROAD ZONE LENGTHS	MILE	2 LANE	3 LANE	2 LANE
FRONTAGE ROAD AND RAMP ACCIDENTS				
R.O.W. AND RDBD. WIDTH				
SUR. WIDTH AND TYPE				
GRADES OVER 3%				
CURVES OVER 2°				
BALL BANK OR ADVISORY SPEED				
RES. SIGHT DISTANCE				
DEVELOPMENT		RESIDENTIAL	SCHOOL	RESIDENTIAL

FORT BEND COUNTY, TEXAS

DATE OF SURVEY **12/21/2014** SCALE **1" = 300'**

LIMITS OF ZONE

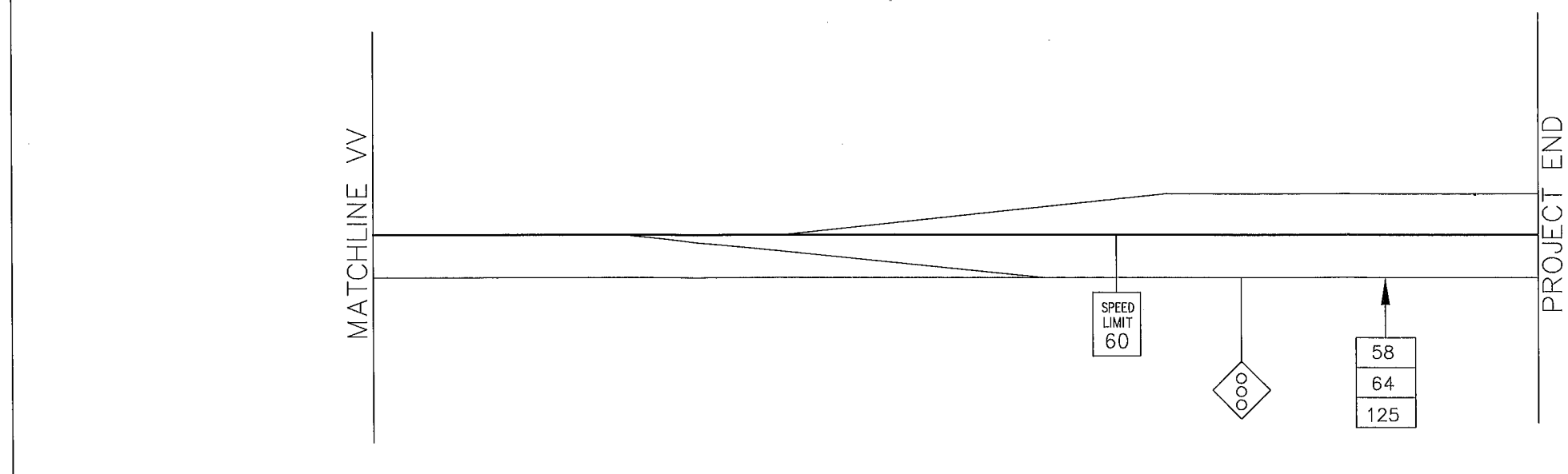
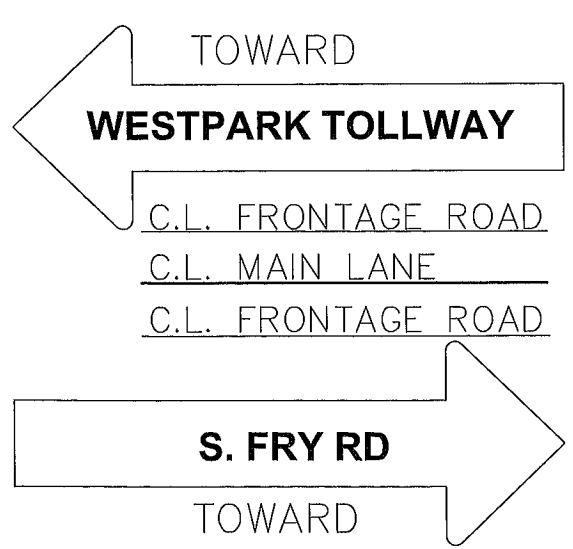
SECTION ONE		LENGTH	MILES	SECTION TWO		LENGTH	MILES
BEGINS	STA INTERSECTION CONT & SECT		PROJECT	BEGINS	STA INTERSECTION CONT & SECT		PROJECT
ENDS	STA INTERSECTION CONT & SECT		PROJECT	ENDS	STA INTERSECTION CONT & SECT		PROJECT

- ← [] 85 PERCENTILE SPEED
- [] TOP SPEED MEASURED
- [] NUMBER OF CARS CHECKED
- FATAL ACCIDENT
- PERSONAL INJURY ACCIDENT
- PROPERTY DAMAGE ACCIDENT

SPEED ZONE
 GRAND PARKWAY 99
 FROM US 59 TO S. FRY ROAD
STRIP MAP

SEE APPENDIX A FOR CRASH DENSITY MAP ALONG CORRIDOR

DEVELOPMENT		RESIDENTIAL	COMMERCIAL
RES. SIGHT DISTANCE			
BALL BANK OR ADVISORY SPEED			
CURVES OVER 2°			
GRADES OVER 3%			BRIDGE
SUR. WIDTH AND TYPE			
R.O.W. AND RDBD. WIDTH			
FRONTAGE ROAD AND RAMP ACCIDENTS			
FRONTAGE ROAD ZONE LENGTHS	MILE	1 LANE	2 LANE
FRONTAGE ROAD ZONE SPEEDS	MPH	45 MPH	
MAIN LANE ACCIDENTS			
MAIN LANE ZONE LENGTHS	MILE		
MAIN LANE ZONE SPEEDS	MPH		







MAIN LANE ZONE SPEEDS	MPH	60 MPH	
MAIN LANE ZONE LENGTHS	MILE	2 LANE	
MAIN LANE ACCIDENTS			
FRONTAGE ROAD ZONE SPEEDS	MPH	45 MPH	
FRONTAGE ROAD ZONE LENGTHS	MILE	2 LANE	3 LANE
FRONTAGE ROAD AND RAMP ACCIDENTS			
R.O.W. AND RDBD. WIDTH			
SUR. WIDTH AND TYPE			
GRADES OVER 3%			BRIDGE
CURVES OVER 2°			
BALL BANK OR ADVISORY SPEED			
RES. SIGHT DISTANCE			
DEVELOPMENT		RESIDENTIAL	COMMERCIAL

FORT BEND COUNTY, TEXAS

DATE OF SURVEY **12/21/2014** SCALE **1" = 300'**

LIMITS OF ZONE

SECTION ONE		LENGTH	MILES	SECTION TWO		LENGTH	MILES
BEGINS	STA INTERSECTION CONT & SECT		PROJECT	BEGINS	STA INTERSECTION CONT & SECT		PROJECT
ENDS	STA INTERSECTION CONT & SECT		PROJECT	ENDS	STA INTERSECTION CONT & SECT		PROJECT

-  85 PERCENTILE SPEED
TOP SPEED MEASURED
NUMBER OF CARS CHECKED
-  FATAL ACCIDENT
-  PERSONAL INJURY ACCIDENT
-  PROPERTY DAMAGE ACCIDENT

SPEED ZONE
GRAND PARKWAY
FROM US 59 TO S. FRY ROAD
STRIP MAP

SEE APPENDIX A FOR CRASH DENSITY MAP ALONG CORRIDOR

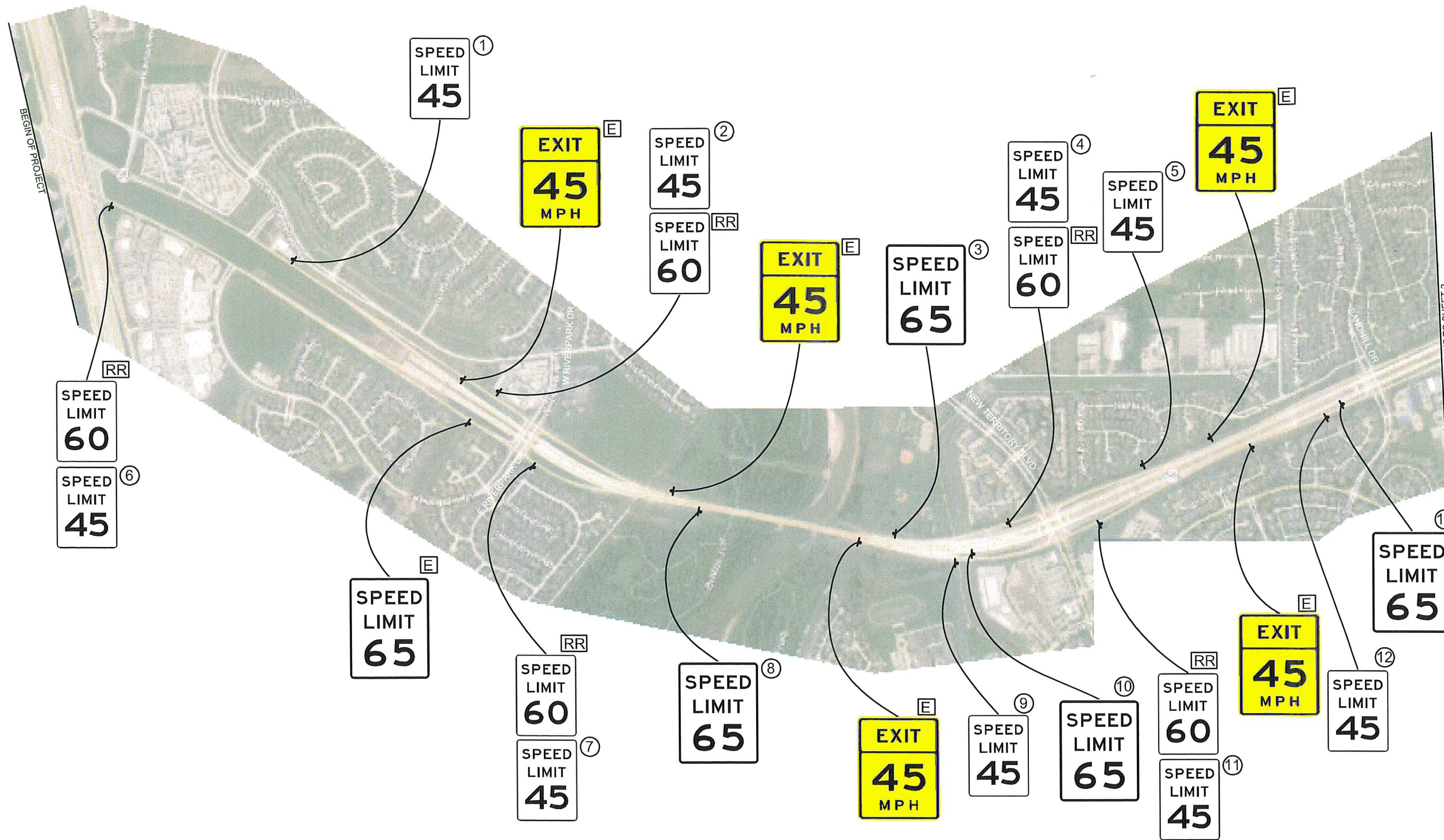
Appendix D - Schematic Map – Locations of Speed Limit Signs



NOT TO SCALE

LEGEND

- PROPOSED SIGN
- E EXISTING SIGN TO REMAIN
- R REMOVE EXISTING SIGN AND MOUNT
- RR EXISTING SIGN TO BE REPLACED AS SHOWN IN PLANS



NO.	DATE	REVISION	APPROVED

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND NOT FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

RESPONSIBLE ENGINEER:
TRAFFIC ENGINEERS, INC.
BRADLEY G. EAVES, P.E.
TEXAS REGISTRATION NO. (PE #91759)

02/10/2015

MARKUP / PICKUP STAMP	
MARKUP	PICKUP
DATE	DATE
INITIAL	INITIAL

FORT BEND COUNTY
TOLL ROAD AUTHORITY

TRAFFIC ENGINEERS, INC.
INNOVATIVE TRANSPORTATION SOLUTIONS

FORT BEND GRAND PARKWAY
PROPOSED
REGULATORY AND ADVISORY
SPEED LIMIT SIGNS

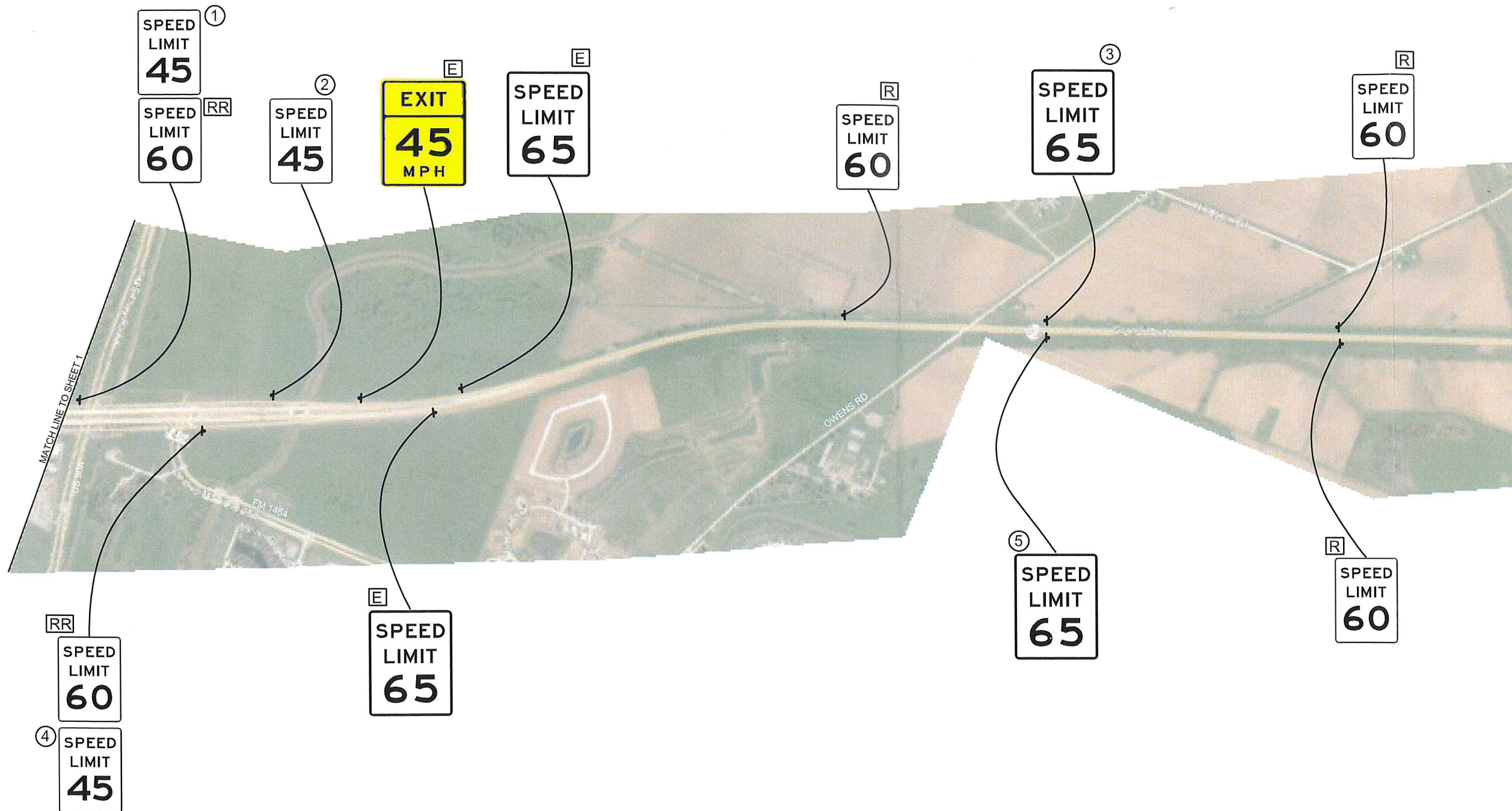
FED. RD. DIV. NO.	CONTRACT NO.	SHEET NO.
		SHEET 1 OF 5
STATE	DIST.	COUNTY
TEXAS	HOUSTON	FORT BEND
CONT.	SECT.	JOB
		HIGHWAY NO.



NOT TO SCALE

LEGEND

- PROPOSED SIGN
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- R REMOVE EXISTING SIGN AND MOUNT
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MARKUP / PICKUP STAMP			
MARKUP		PICKUP	
DATE	INITIAL	DATE	INITIAL
<p>FORT BEND COUNTY TOLL ROAD AUTHORITY</p>			
<p>TRAFFIC ENGINEERS, INC. INNOVATIVE TRANSPORTATION SOLUTIONS</p>			
<p>FORT BEND GRAND PARKWAY PROPOSED REGULATORY AND ADVISORY SPEED LIMIT SIGNS</p>			
FED. RD. DIV. NO.	CONTRACT NO.	SHEET NO.	
		SHEET 2 OF 5	
STATE	DIST.	COUNTY	
TEXAS	HOUSTON	FORT BEND	
CONT.	SECT.	JOB	HIGHWAY NO.



NOT TO SCALE

LEGEND

- PROPOSED SIGN
- E EXISTING SIGN TO REMAIN
- R REMOVE EXISTING SIGN AND MOUNT
- RR EXISTING SIGN TO BE REPLACED AS SHOWN IN PLANS



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 TRAFFIC ENGINEERS, INC.
 BRADLEY G. EAVES, P.E.
 TEXAS REGISTRATION NO. (PE *91759)

02/10/2015

MARKUP / PICKUP STAMP			
MARKUP	PICKUP		
DATE	INITIAL	DATE	INITIAL

FORT BEND COUNTY
 TOLL ROAD AUTHORITY

TRAFFIC ENGINEERS, INC.
 INNOVATIVE TRANSPORTATION SOLUTIONS

FORT BEND GRAND PARKWAY
 PROPOSED
 REGULATORY AND ADVISORY
 SPEED LIMIT SIGNS

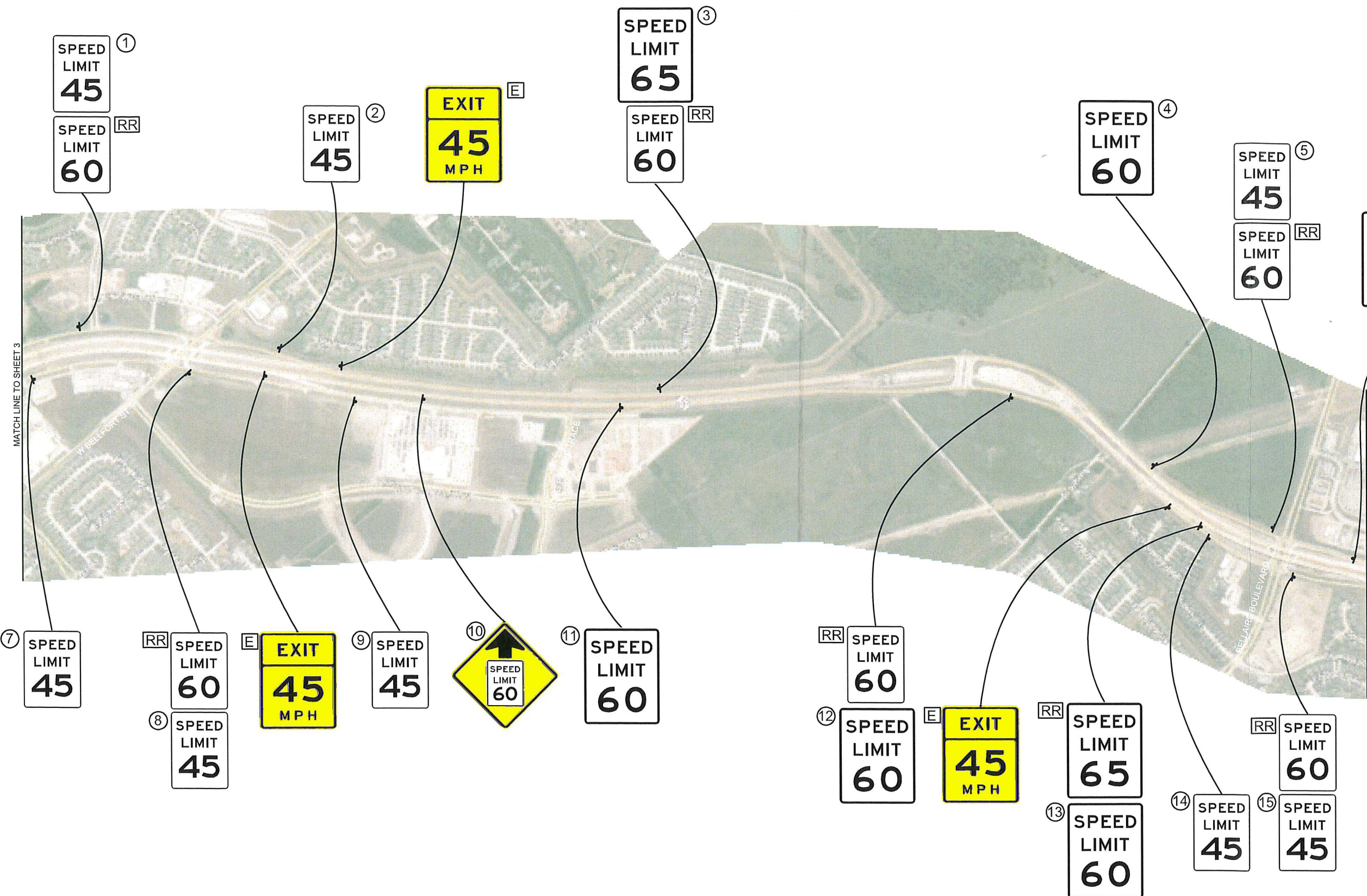
FED. RD. DIV. NO.	CONTRACT NO.	SHEET NO.	
		SHEET 3 OF 5	
STATE	DIST.	COUNTY	
TEXAS	HOUSTON	FORT BEND	
CONT.	SECT.	JOB	HIGHWAY NO.



NOT TO SCALE

LEGEND

- PROPOSED SIGN
- E EXISTING SIGN TO REMAIN
- R REMOVE EXISTING SIGN AND MOUNT
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02/10/2015			
MARKUP / PICKUP STAMP			
MARKUP		PICKUP	
DATE	INITIAL	DATE	INITIAL

FORT BEND COUNTY
 TOLL ROAD AUTHORITY

TRAFFIC ENGINEERS, INC.
 INNOVATIVE TRANSPORTATION SOLUTIONS

FORT BEND GRAND PARKWAY
 PROPOSED
 REGULATORY AND ADVISORY
 SPEED LIMIT SIGNS

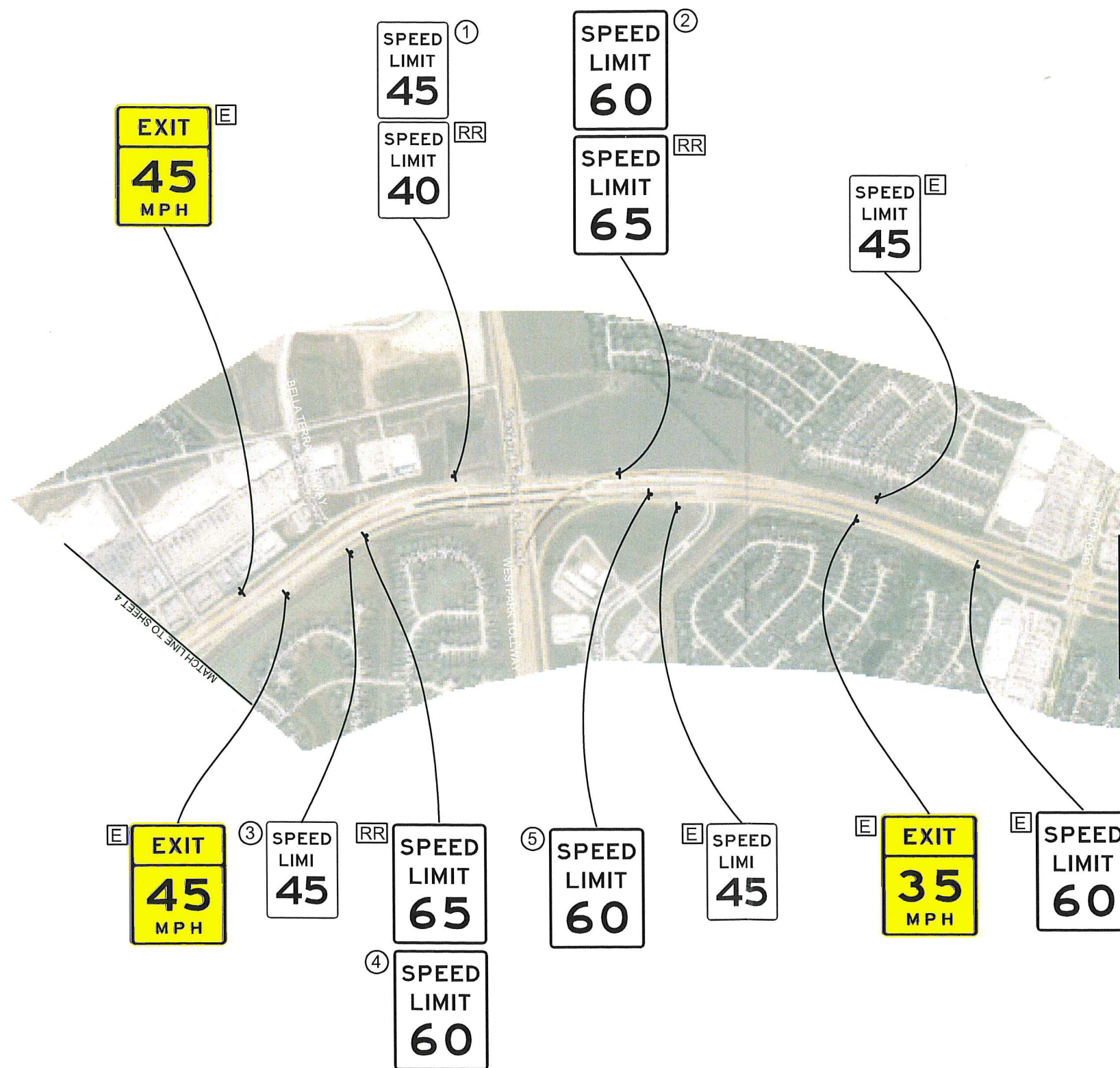
FED. RD. DIV. NO.	CONTRACT NO.		SHEET NO.
			SHEET 4 OF 5
STATE	DIST.	COUNTY	
TEXAS	HOUSTON	FORT BEND	
CONT.	SECT.	JOB	HIGHWAY NO.




NOT TO SCALE

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MARKUP / PICKUP STAMP			
MARKUP		PICKUP	
DATE	INITIAL	DATE	INITIAL
<p>FORT BEND COUNTY TOLL ROAD AUTHORITY</p> 			
<p>TRAFFIC ENGINEERS, INC.</p> <p>INNOVATIVE TRANSPORTATION SOLUTIONS</p>			
<p>FORT BEND GRAND PARKWAY PROPOSED REGULATORY AND ADVISORY SPEED LIMIT SIGNS</p>			
FED. RD. DIV. NO.	CONTRACT NO.		SHEET NO.
			SHEET 5 OF 5
STATE	DIST.	COUNTY	
TEXAS	HOUSTON	FORT BEND	
CONT.	SECT.	JOB	HIGHWAY NO.