

TECHNICAL APPENDIX

Four Hills Speed Hump Evaluation Study

Albuquerque, New Mexico

TRAFFIC ENGINEERING DIVISION - BEFORE & AFTER SPEED SURVEYS

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CC Dist	Project Name	Boundaries	Type	Count	VPD		Peak AM	Peak PM	Spd Avg	Spd 85th%	Veh Speed Vol	>5MPH Over Limit	Hump Install Status
					Vol	Direct							
9	625 STAGECOACH	FOUR HILLS-WAGON TRAIN	NTMP	11/14/00	3554	EB 1785	800	1800	32.82	38.5	75.77	2693	pre
9	539 STAGECOACH	FOUR HILLS-WAGON TRAIN	NTMP	8/20/01	3565	EB 1764	700	1600	28.82	33.8	37.55	1339	pre
9	724 STAGECOACH	EAST OF-LAMP POST	NTMP	8/4/04	3650	EB 1969	700	1600	32.50	37.80	71.58	2613	pre
9	724 STAGECOACH	EAST OF-LAMP POST	NTMP	9/28/04	3023	EB 1500	1100	1600	24.50	29.00	7.34	222	post
9	724 STAGECOACH	EAST OF-LAMP POST	NTMP	12/20/04	3054	EB 1471	1000	1500	24.10	28.80	6.22	190	post
9	724 STAGECOACH	EAST OF-LAMP POST	NTMP	2/15/05	2401	EB 1902	700	1600	24.20	29.00	8.49	204	post
9	724 STAGECOACH	EAST OF-LAMP POST	NTMP	2/16/05	2437	EB 1957	700	1600	23.90	28.90	7.91	193	post
9	724 STAGECOACH	EAST OF-LAMP POST	NTMP	2/28/05	2301	EB 1998	800	1800	24.10	28.90	7.64	176	post
9	724 STAGECOACH	EAST OF-LAMP POST	NTMP	4/4/05	3655	EB 1792	800	1700	24.40	28.90	6.40	234	post
9	724 STAGECOACH	EAST OF-LAMP POST	NTMP	4/5/05	3668	EB 1802	800	1700	24.50	29.00	7.41	272	post

9	1100 STAGECOACH	EAST OF-MAVERICK	NTMP	9/22/03	2421	EB 1219	700	1700	32.60	38.50	72.49	1755	pre
9	1100 STAGECOACH	EAST OF-MAVERICK	NTMP	9/23/03	2440	EB 1245	700	1700	32.67	38.60	74.34	1814	pre
9	1100 STAGECOACH	EAST OF-MAVERICK	NTMP	9/28/04	2163	EB 1003	800	1700	26.50	31.40	19.50	422	post
9	1100 STAGECOACH	EAST OF-MAVERICK	NTMP	12/13/04	1781	EB 758	900	1800	26.80	31.70	21.22	378	post
9	1100 STAGECOACH	EAST OF-MAVERICK	NTMP	12/14/04	1786	EB 692	900	1900	26.90	31.80	21.83	390	post
9	1100 STAGECOACH	EAST OF-MAVERICK	NTMP	2/15/05	1757	EB 814	800	1700	26.60	31.60	20.14	354	post
9	1100 STAGECOACH	EAST OF-MAVERICK	NTMP	2/16/05	1897	EB 916	700	1700	26.50	31.10	18.60	353	post
9	1100 STAGECOACH	EAST OF-MAVERICK	NTMP	4/4/05	2051	EB 1036	800	1700	26.50	31.30	19.40	398	post
9	1100 STAGECOACH	EAST OF-MAVERICK	NTMP	4/5/05	2026	EB 1027	800	1700	26.60	31.20	18.90	383	post
9	1100 STAGECOACH	EAST OF-MAVERICK	NTMP	5/11/05	2452	EB 1343	700	1700	26.90	32.00	23.00	564	post

9	1317 STAGECOACH	NORTH OF-SAGEBRUSH	NTMP	10/4/04	1189	NB 407	1100	1700	27.50	32.40	25.14	299	pre
9	1317 STAGECOACH	NORTH OF-SAGEBRUSH	NTMP	3/15/06	1588	NB 744	800	1200	27.30	31.00	23.55	374	pre
9	1317 STAGECOACH	NORTH OF-SAGEBRUSH	NTMP	3/16/06	1823	NB 901	1000	1700	26.60	30.80	21.22	387	pre
9	1317 STAGECOACH	NORTH OF-SAGEBRUSH	NTMP	4/17/06	1731	NB 885	700	1700	27.00	30.90	22.35	387	post
9	1317 STAGECOACH	NORTH OF-SAGEBRUSH	NTMP	4/18/06	1733	NB 881	800	1500	26.40	30.30	17.65	306	post
9	1317 STAGECOACH	NORTH OF-SAGEBRUSH	NTMP	4/19/06	1895	NB 955	800	1700	26.80	30.80	21.16	401	post
9	1317 STAGECOACH	NORTH OF-SAGEBRUSH	NTMP	4/17/06	1731	NB 885	700	1700	27.00	30.90	22.35	387	post
9	1317 STAGECOACH	NORTH OF-SAGEBRUSH	NTMP	4/18/06	1733	NB 881	800	1500	26.40	30.30	17.65	306	post
9	1317 STAGECOACH	NORTH OF-SAGEBRUSH	NTMP	4/19/06	1895	NB 955	800	1700	26.80	30.80	21.16	401	post

9	1501 STAGECOACH	SOPLO - CERROS DE MADRID	NTMP	10/14/02	653	NB 336	1100	1200	27.95	34.40	41.65	272	
9	1501 STAGECOACH	SOPLO - CERROS DE MADRID	NTMP	10/15/02	614	NB 308	1100	1200	28.55	35.20	46.74	287	
9	1501 STAGECOACH	SOPLO - CERROS DE MADRID	NTMP	3/12/03	549	NB 308	800	1700	28.67	36.80	46.08	253	
9	1501 STAGECOACH	SOPLO - CERROS DE MADRID	NTMP	3/13/06	563	NB 279	1100	1700	25.30	31.20	21.84	123	pre
9	1501 STAGECOACH	SOPLO - CERROS DE MADRID	NTMP	3/14/06	650	NB 315	1100	1700	24.70	31.20	17.69	115	pre
9	1501 STAGECOACH	SOPLO - CERROS DE MADRID	NTMP	3/15/06	657	NB 316	1000	1800	24.70	31.20	20.24	133	pre
9	1501 STAGECOACH	SOPLO - CERROS DE MADRID	NTMP	3/16/06	643	NB 323	800	1700	24.60	31.00	20.52	132	pre
9	1501 STAGECOACH	SOPLO - CERROS DE MADRID	NTMP	4/17/06	659	NB 325	1000	1400	24.70	30.90	19.11	126	post
9	1501 STAGECOACH	SOPLO - CERROS DE MADRID	NTMP	4/18/06	641	NB 325	1100	1200	24.90	30.90	20.90	134	post
9	1501 STAGECOACH	SOPLO - CERROS DE MADRID	NTMP	4/19/06	725	NB 354	800	1600	24.60	31.20	19.72	143	post

Resurvey

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CC Dist	Project Name	Boundaries	Type	Count	VPD	Vol	Vol	Vol	Peak AM	Peak PM	Spd Avg	Spd 85th%	Veh Speed	>5MPH Over Limit	Hump Install Status
	Adrrs		Projit	Date	Total	Direct	Direct	Direct	AM	PM			Vol		
9	1709 STAGECOACH	SOUTH OF ARENAS	NTMP	10/14/02	156	NB 76	SB 80	SB 80	1100	1600	23.90	29.70	12.17	19	pre
9	1709 STAGECOACH	SOUTH OF ARENAS	NTMP	10/15/02	145	NB 71	SB 74	SB 74	800	1300	23.47	31.30	17.93	26	pre
9	1709 STAGECOACH	SOUTH OF ARENAS	NTMP	3/12/03	127	NB 66	SB 61	SB 61	1100	1600	20.05	25.50	0.78	1	pre
9	1709 STAGECOACH	SOUTH OF ARENAS	LEGAL	9/10/03	121	NB 74	SB 47	SB 47	1100	1200	22.37	28.65	9.09	11	post
9	1709 STAGECOACH	SOUTH OF ARENAS	LEGAL	9/11/03	152	NB 87	SB 65	SB 65	800	1600	24.45	31.00	15.78	24	post
9	1709 STAGECOACH	SOUTH OF ARENAS	LEGAL	9/12/03	175	NB 113	SB 62	SB 62	1100	1200	22.85	28.20	4.00	7	post
9	1709 STAGECOACH	SOUTH OF ARENAS	LEGAL	9/13/03	178	NB 102	SB 76	SB 76	1000	1500	23.10	29.10	10.11	18	post
9	1709 STAGECOACH	SOUTH OF ARENAS	LEGAL	9/14/03	182	NB 118	SB 64	SB 64	1200	1700	24.80	30.30	15.28	28	post
9	1813 STAGECOACH	AT OPEN SPACE TURNAROUND	LEGAL	9/10/03	89	NB 39	SB 50	SB 50	900	1500	16.80	24.05	3.37	3	
9	1813 STAGECOACH	AT OPEN SPACE TURNAROUND	LEGAL	9/11/03	84	NB 30	SB 54	SB 54	700	1200	22.45	30.70	14.28	12	
9	1813 STAGECOACH	AT OPEN SPACE TURNAROUND	LEGAL	9/12/03	110	NB 46	SB 64	SB 64	900	1200	20.25	26.70	5.45	6	
9	1813 STAGECOACH	AT OPEN SPACE TURNAROUND	LEGAL	9/13/03	120	NB 43	SB 77	SB 77	900	1500	19.85	27.60	5.83	7	
9	1813 STAGECOACH	AT OPEN SPACE TURNAROUND	LEGAL	9/14/03	142	NB 59	SB 83	SB 83	1100	1700	20.25	27.90	9.85	14	
9	N/A STAGECOACH	AT OPEN SPACE ENTRANCE	LEGAL	9/10/03	61	NB 30	SB 31	SB 31	1100	2000	15.00	19.05	1.63	1	
9	N/A STAGECOACH	AT OPEN SPACE ENTRANCE	LEGAL	9/11/03	70	NB 32	SB 38	SB 38	1000	1500	15.40	21.40	1.42	1	
9	N/A STAGECOACH	AT OPEN SPACE ENTRANCE	LEGAL	9/12/03	88	NB 43	SB 45	SB 45	1100	1200	12.40	19.40	0.00	0	
9	N/A STAGECOACH	AT OPEN SPACE ENTRANCE	LEGAL	9/13/03	108	NB 50	SB 58	SB 58	900	1500	12.50	20.00	0.00	0	
9	N/A STAGECOACH	AT OPEN SPACE ENTRANCE	LEGAL	9/14/03	114	NB 56	SB 58	SB 58	1100	1700	12.90	19.70	0.00	0	

9	527 WAGONTRAIN DR	NORTH OF VIA POSADA	NTMP	11/15/01	3327	NB 1606	SB 1721	SB 1721	800	1800	26.8	32.1	23.71	789	
9	608 WAGONTRAIN DR	SOUTH OF VIA POSADA	NTMP	11/15/01	2827	NB 1365	SB 1462	SB 1462	800	1800	31.67	37.6	65.29	1846	
9	721 WAGONTRAIN DR	NORTH OF TORO	NTMP	8/4/04	2693	NB 1144	SB 1549	SB 1549	1100	1600	29.80	34.30	48.38	1303	
9	709 WAGONTRAIN DR	NORTH OF TORO	NTMP	9/8/04	2976	NB 1545	SB 1431	SB 1431	1000	1700	24.40	29.00	7.25	216	
9	709 WAGONTRAIN DR	NORTH OF TORO	NTMP	12/20/04	2432	NB 2265	SB 167	SB 167	700	1200	24.00	28.90	7.73	188	
9	709 WAGONTRAIN DR	NORTH OF TORO	NTMP	2/16/05	2857	NB 1468	SB 1389	SB 1389	900	1700	24.70	29.10	8.12	232	
9	709 WAGONTRAIN DR	NORTH OF TORO	NTMP	4/4/05	2784	NB 1359	SB 1425	SB 1425	700	1700	25.10	29.30	8.76	244	
9	709 WAGONTRAIN DR	NORTH OF TORO	NTMP	4/5/05	2874	NB 1375	SB 1499	SB 1499	800	1700	25.20	29.30	9.25	266	
9	1037 WAGONTRAIN DR	MATADOR-SANTA ANA	NTMP	3/13/06	1641	NB 843	SB 798	SB 798	700	1600	24.90	31.00	19.68	323	pre
9	1037 WAGONTRAIN DR	MATADOR-SANTA ANA	NTMP	3/14/06	1752	NB 896	SB 856	SB 856	700	1700	24.60	31.00	20.20	354	pre
9	1037 WAGONTRAIN DR	MATADOR-SANTA ANA	NTMP	3/15/06	1766	NB 895	SB 871	SB 871	700	1700	24.70	31.00	20.83	368	pre
9	1037 WAGONTRAIN DR	MATADOR-SANTA ANA	NTMP	3/16/06	1719	NB 874	SB 845	SB 845	800	1700	24.30	30.60	17.51	301	pre
9	1037 WAGONTRAIN DR	MATADOR-SANTA ANA	NTMP	4/17/06	1645	NB 850	SB 795	SB 795	800	1700	24.70	30.60	19.57	322	post
9	1037 WAGONTRAIN DR	MATADOR-SANTA ANA	NTMP	4/18/06	1748	NB 901	SB 847	SB 847	800	1700	24.60	30.90	20.19	353	post
9	1037 WAGONTRAIN DR	MATADOR-SANTA ANA	NTMP	4/19/06	1757	NB 893	SB 864	SB 864	700	1800	24.50	30.40	17.24	303	post
9	1204 WAGONTRAIN	SOUTH OF RATON	NTMP	9/7/04	1101	NB 503	SB 607	SB 607	900	1600	26.60	31.70	20.90	232	pre
9	1204 WAGONTRAIN	SOUTH OF RATON	NTMP	3/13/06	1098	NB 549	SB 549	SB 549	700	1700	26.60	30.90	20.49	225	pre
9	1204 WAGONTRAIN	SOUTH OF RATON	NTMP	3/14/06	1195	NB 615	SB 580	SB 580	700	1700	25.60	30.20	16.06	192	pre
9	1204 WAGONTRAIN	SOUTH OF RATON	NTMP	3/15/06	1223	NB 627	SB 596	SB 596	700	1600	25.70	30.70	19.21	235	pre
9	1204 WAGONTRAIN	SOUTH OF RATON	NTMP	3/16/06	1185	NB 596	SB 589	SB 589	800	1700	25.60	30.40	18.05	214	pre
9	1204 WAGONTRAIN	SOUTH OF RATON	NTMP	4/17/06	1265	NB 645	SB 620	SB 620	800	1700	25.10	30.00	15.17	192	post
9	1204 WAGONTRAIN	SOUTH OF RATON	NTMP	4/18/06	1265	NB 625	SB 640	SB 640	800	1700	24.90	29.80	13.43	170	post
9	1204 WAGONTRAIN	SOUTH OF RATON	NTMP	4/19/06	1313	NB 658	SB 655	SB 655	700	1600	24.90	29.70	13.63	179	post

Re-Striping

CC Dist	Project Name	Boundaries	Type	Day	Count Date	VPD	Vol	Vol	Vol	Peak AM	Peak PM	Spd Avg	Spd 85th%	Veh Speed	>5MPH Over Limit	Hump Install Status
9	1220 WAGONTRAIN DR	RIVA RIDGE - BRAZOS	NTMP	Tue	8/7/04	612	NB 271	SB 341	1000	1700	28.90	35.40	42.15	256	pre	
9	1220 WAGONTRAIN DR	RIVA RIDGE - BRAZOS	NTMP	Mon	3/13/06	750	NB 371	SB 379	700	1800	26.40	31.30	23.60	177	pre	
9	1220 WAGONTRAIN DR	RIVA RIDGE - BRAZOS	NTMP	Tue	3/14/06	801	NB 400	SB 401	1000	1200	25.40	30.70	18.47	148	pre	
9	1220 WAGONTRAIN DR	RIVA RIDGE - BRAZOS	NTMP	Wed	3/15/06	802	NB 402	SB 400	900	1300	26.00	31.30	24.18	194	pre	
9	1220 WAGONTRAIN DR	RIVA RIDGE - BRAZOS	NTMP	Thur	3/16/06	804	NB 399	SB 405	1000	1700	25.30	30.60	18.28	147	pre	
9	1220 WAGONTRAIN DR	RIVA RIDGE - BRAZOS	NTMP	Mon	4/17/06	790	NB 398	SB 392	700	1600	26.00	30.60	20.12	159	post	
9	1220 WAGONTRAIN DR	RIVA RIDGE - BRAZOS	NTMP	Tue	4/18/06	795	NB 380	SB 415	700	1600	25.90	30.70	19.37	154	post	
9	1220 WAGONTRAIN DR	RIVA RIDGE - BRAZOS	NTMP	Wed	4/19/06	817	NB 404	SB 413	600	1500	26.00	31.10	20.68	169	post	
9	1344 WAGONTRAIN DR	EAST OF-SANTA ANA	NTMP	Wed	9/29/04	334	EB 227	WB 107	1100	1600	25.40	30.70	16.76	56	pre	
9	1344 WAGONTRAIN DR	EAST OF-SANTA ANA	NTMP	Mon	3/13/06	465	EB 245	WB 220	1100	1200	23.60	29.20	10.53	49	pre	
9	1344 WAGONTRAIN DR	EAST OF-SANTA ANA	NTMP	Tue	3/14/06	440	EB 219	WB 221	900	1200	23.30	28.40	8.86	39	pre	
9	1344 WAGONTRAIN DR	EAST OF-SANTA ANA	NTMP	Wed	3/15/06	427	EB 210	WB 217	1100	1200	23.40	29.10	10.77	46	pre	
9	1344 WAGONTRAIN DR	EAST OF-SANTA ANA	NTMP	Thur	3/16/06	478	EB 242	WB 236	1000	1700	23.20	28.90	10.66	51	pre	
9	1344 WAGONTRAIN DR	EAST OF-SANTA ANA	NTMP	Mon	4/17/06	435	EB 213	WB 222	800	1200	23.00	28.80	9.65	42	post	
9	1344 WAGONTRAIN DR	EAST OF-SANTA ANA	NTMP	Tue	4/18/06	487	EB 258	WB 229	800	1500	23.30	28.40	7.39	36	post	
9	1344 WAGONTRAIN DR	EAST OF-SANTA ANA	NTMP	Wed	4/19/06	471	EB 231	WB 240	1100	1600	23.40	28.80	10.19	48	post	
9	1344 WAGONTRAIN DR	EAST OF-SANTA ANA	NTMP	Wed	9/29/04	261	EB 165	WB 96	1100	1600	27.70	33.80	33.33	87	post	
9	1505 WAGONTRAIN DR	EAST OF-BERNALLILLO	NTMP	Wed	9/29/04	223	EB 117	WB 106	1000	1600	27.30	33.50	30.04	67	post	

Re-striping

9	900 MAVERICK	NORTH OF-STAGECOACH	NTMP	Mon	11/8/04	57	NB 30	SB 27	700	1800	21.80	28.30	8.77	5	
9	900 MAVERICK	NORTH OF-STAGECOACH	NTMP	Tue	11/9/04	53	NB 28	SB 25	1000	1500	22.30	29.40	11.32	6	
9	900 MAVERICK	NORTH OF-STAGECOACH	NTMP	Tue	4/5/05	46	NB 19	SB 27	700	1400	21.80	28.30	8.69	4	
9	900 MAVERICK	NORTH OF-STAGECOACH	NTMP	Wed	5/11/05	93	NB 43	SB 50	700	1700	20.00	24.90	1.07	1	
9	900 MAVERICK	NORTH OF-STAGECOACH	NTMP	Thur	5/12/05	100	NB 50	SB 50	700	1500	20.30	24.70	0.00	0	
9	900 MAVERICK	NORTH OF-STAGECOACH	NTMP	Fri	5/13/05	100	NB 56	SB 44	900	1400	19.60	25.40	3.00	3	
9	900 MAVERICK	NORTH OF-STAGECOACH	NTMP	Sat	5/14/05	78	NB 35	SB 43	900	1200	18.60	24.10	1.28	1	
9	900 MAVERICK	NORTH OF-STAGECOACH	NTMP	Sun	5/15/05	65	NB 38	SB 27	900	1200	19.80	24.80	3.07	2	
9	900 MAVERICK	NORTH OF-STAGECOACH	NTMP	Tue	8/23/05	77	NB 42	SB 35	1100	1500	20.00	24.80	3.89	3	

9	901 MARTINGALE	WARM SANDS-WARM SANDS	NTMP	Wed	5/11/05	57	NB 45	SB 12	1100	1700	22.40	27.70	3.50	2	
9	901 MARTINGALE	WARM SANDS-WARM SANDS	NTMP	Thur	5/12/05	61	NB 42	SB 19	1100	1300	21.40	27.30	4.91	3	
9	901 MARTINGALE	WARM SANDS-WARM SANDS	NTMP	Fri	5/13/05	72	NB 48	SB 24	1100	1300	20.20	27.30	4.16	3	
9	901 MARTINGALE	WARM SANDS-WARM SANDS	NTMP	Sat	5/14/05	58	NB 41	SB 17	800	1200	20.50	27.80	5.17	3	
9	901 MARTINGALE	WARM SANDS-WARM SANDS	NTMP	Sun	5/15/05	43	NB 33	SB 10	1100	1300	20.90	28.00	4.65	2	
9	901 MARTINGALE	WARM SANDS-WARM SANDS	NTMP	Tue	8/23/05	44	NB 20	SB 24	1000	1500	18.80	24.20	0.00	0	

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CC Dist	Project Name	Boundaries	Type	Day	Count	VPD	Vol	Vol	Vol	Peak AM	Peak PM	Spd Avg	Spd 85th%	Veh Speed	>5MPH Over Limit	Hump Install
Addr			Proj		Date	Total	Direct	Direct	Direct	AM	PM			Vol		Stats
9	1106 WARM SANDS	NORTH OF-STAGECOACH	NTMP	Mon	11/8/04	527	NB 301	SB 226	1000	1600	25.90	30.9	30.9	17.83	94	pre
9	1106 WARM SANDS	NORTH OF-STAGECOACH	NTMP	Tue	11/9/04	472	NB 265	SB 207	700	1200	25.40	30.5	30.5	15.67	74	pre
9	1106 WARM SANDS	NORTH OF-STAGECOACH	NTMP	Mon	4/4/05	493	NB 215	SB 278	1000	1600	24.60	30.2	30.2	15.21	75	pre
9	1106 WARM SANDS	NORTH OF-STAGECOACH	NTMP	Tue	4/5/05	478	NB 194	SB 284	1000	1400	25.10	30.7	30.7	16.73	80	pre
9	1108 WARM SANDS	NORTH OF-STAGECOACH	NTMP	Wed	5/11/05	118	NB 68	SB 50	1100	1600	21.70	28	28	7.62	9	post
9	1108 WARM SANDS	NORTH OF-STAGECOACH	NTMP	Thur	5/12/05	123	NB 70	SB 53	900	1600	22.60	28.8	28.8	9.75	12	post
9	1108 WARM SANDS	NORTH OF-STAGECOACH	NTMP	Fri	5/13/05	134	NB 71	SB 63	900	1500	21.40	28.6	28.6	10.44	14	post
9	1108 WARM SANDS	NORTH OF-STAGECOACH	NTMP	Sat	5/14/05	123	NB 75	SB 48	1100	1300	21.20	26	26	1.62	2	post
9	1108 WARM SANDS	NORTH OF-STAGECOACH	NTMP	Sun	5/15/05	122	NB 67	SB 55	1000	1300	19.70	26.9	26.9	6.55	8	post
9	1108 WARM SANDS	NORTH OF-STAGECOACH	NTMP	Tue	8/23/05	58	NB 28	SB 30	1100	1300	20.70	24.6	24.6	1.74	1	post

9	905 WARM SANDS	WEST OF-MAVERICK	NTMP	Wed	8/4/04	246	EB 124	WB 122	1000	1200	27.80	33.5	33.5	33.73	83	pre
9	905 WARM SANDS	WEST OF-MAVERICK	NTMP	Mon	10/5/04	523	EB 259	WB 264	700	1600	27.20	33.6	33.6	31.93	167	pre
9	905 WARM SANDS	WEST OF-MAVERICK	NTMP	Mon	11/8/04	770	EB 360	WB 410	800	1500	25.00	30.7	30.7	16.75	129	pre
9	905 WARM SANDS	WEST OF-MAVERICK	NTMP	Tue	11/9/04	671	EB 332	WB 339	700	1200	24.60	30.8	30.8	17.28	116	pre
9	905 WARM SANDS	WEST OF-MAVERICK	NTMP	Tue	12/14/04	789	EB 386	WB 403	800	1600	25.30	31.6	31.6	20.53	162	pre
9	905 WARM SANDS	WEST OF-MAVERICK	NTMP	Mon	2/28/05	816	EB 380	WB 436	800	1800	27.40	33.6	33.6	29.90	244	pre
9	905 WARM SANDS	WEST OF-MAVERICK	NTMP	Mon	4/4/05	841	EB 435	WB 406	900	1400	26.50	33.1	33.1	27.11	228	pre
9	905 WARM SANDS	WEST OF-MAVERICK	NTMP	Tue	4/5/05	809	EB 399	WB 410	800	1600	26.90	33.3	33.3	29.41	238	pre
9	905 WARM SANDS	WEST OF-MAVERICK	NTMP	Wed	5/11/05	304	EB 166	WB 138	1000	1700	23.20	28.9	28.9	8.88	27	post
9	905 WARM SANDS	WEST OF-MAVERICK	NTMP	Thur	5/12/05	298	EB 153	WB 145	1100	1200	23.20	29.3	29.3	11.40	34	post
9	905 WARM SANDS	WEST OF-MAVERICK	NTMP	Fri	5/13/05	355	EB 193	WB 162	900	1500	23.80	29.8	29.8	14.08	50	post
9	905 WARM SANDS	WEST OF-MAVERICK	NTMP	Sat	5/14/05	300	EB 154	WB 146	1100	1300	22.50	28	28	6.66	20	post
9	905 WARM SANDS	WEST OF-MAVERICK	NTMP	Sun	5/15/05	262	EB 131	WB 131	1100	1400	22.70	28.7	28.7	9.92	26	post
9	905 WARM SANDS	WEST OF-MAVERICK	NTMP	Mon	5/16/05	291	EB 161	WB 130	1000	1700	22.90	28.6	28.6	7.21	21	post
9	905 WARM SANDS	WEST OF-MAVERICK	NTMP	Tue	8/23/05	240	EB 143	WB 97	1000	1500	22.60	28.5	28.5	7.50	18	post

Several streets which have traffic calming devices were reviewed for the occurrence of collisions. Though the number of collisions at particular intersections had no predictable pattern, total collisions along the length of the street tended to decrease, as did injuries from those collisions. Not analyzed was the severity of collisions before and after traffic calming.

**Draft Summary of Collisions Investigation for
Various Traffic Calming Devices
City of Portland, Oregon - 8/97**

Project Street	Street Class	Street Length (ft)	Traffic Speed Devices	Diversion Intended	Speed (mph)		ADT		Reported Collisions		Period (months)	Collisions/1000 vpd			
					Pre	Post	Pre	Post	Pre	Post		Pre	Post	% Change	
NE 7th Avenue	LS	4300	5 Circles	N	36-40	32	6500	5500	55	30	36	8.46	5.45	-35.54%	
SE Clinton Street on (1)	LS	6200	4 Circles	Y	37	33	2400	2000	145	116	52	60.42	58.00	-4.00%	
SE Clinton (2)	LS	2900	4 Circles	Y	36	32	1200	680	35	20	52	29.17	29.41	0.84%	
NE Holman	LS	2600	3 Circles	N	32-34	31-34	1400	1100	30	29	74	21.43	26.36	23.03%	
NE 21st	LS	1700	2 Circles	N	34	30	5600	5600	9	8	61	1.61	1.43	-11.11%	
NE 24th	LS	2000	3 Circles	N	36	29	3500	3200	19	6	61	5.43	1.88	-65.46%	
NW 25th	LS	1500	3 Circles	N	33	28	7800	6500	25	12	76	3.21	1.85	-42.40%	
NW Raleigh	LS	1500	2 Circles	N	30	26	2100	1500	0	1	76	0.00	0.67	-	
									Circle Total	318	222		129.71	125.05	
									% Change	-30.19%		% Change	-3.60%		
NW Cornell	NC	3200	4 22ft Bumps	N	32-40	28-32	6500	6400	1	2	29	0.15	0.31	-	
NE 15th (1)	NC	2300	3 22ft Bumps	N	35-40	25-30	8440	6780	16	8	15	1.90	1.18	-37.76%	
NE 15th (2)	NC	2200	4 22ft Bumps	N	35-40	25-30	8440	6780	27	16	26	3.20	2.36	-26.23%	
SE Harold	LS	5000	8 22ft Bumps	N	37-40	30-34	4210	2550	12	10	15	2.85	3.92	37.58%	
									22 ft Bump Total	56	36		8.10	7.77	
									% Change	-35.71%		% Change	-4.01%		
N Macrum	LS	2280	7 14ft Bumps	N	32-34	20-26	480	370	4	3	41	8.33	8.11	-2.70%	
NE Pacific	LS	1400	4 14ft Bumps	N	34	24	600	600	10	11	41	16.67	18.33	10.00%	
NE 108th	LS	1000	2 14ft Bumps	N	32	23	770	700	5	3	41	6.49	4.29	-34.00%	
SE 55th	LS	1600	4 12ft Bumps	N	26-37	21-25	2300	1900	13	4	41	5.65	2.11	-62.75%	
SW Boones Ferry	LS	3000	5 14ft Bumps	Y	28-35	23-26	4000	1500	29	16	28	7.25	10.67	47.13%	
									14 ft Bump Total	61	37		44.40	43.50	
									% Change	-39.34%		% Change	-2.02%		

LS = Local Service
NC = Neighborhood Collector

WARM SANDS DRIVE SPEED HUMP SPEED ANALYSIS

SEGMENT	ADT	85TH PERCENTILE			
		BEFORE	AFTER	BEFORE	AFTER
WARM SANDS DRIVE		25.9	21.7	30.9	28.0
NORTH OF STAGECOACH		25.4	22.6	30.5	28.8
		24.6	21.4	30.2	28.6
		25.1	21.2	30.7	26.0
			19.7		26.9
			20.7		24.6
AVERAGE		25.3	21.2	30.6	27.2
CHANGE			4.0		3.4
% CHANGE			16.0%		11.2%

WARM SANDS DRIVE		27.8	23.2	33.5	28.9
WEST OF MAVERICK		27.2	23.2	33.6	29.3
		25.0	23.8	30.7	29.8
		24.6	22.5	30.8	28.0
		25.3	22.7	31.6	28.7
		27.4	22.9	33.6	28.6
		26.5	22.6	33.1	28.5
		26.9		33.3	
AVERAGE		26.3	23.0	32.5	28.8
CHANGE			3.4		3.7
% CHANGE			12.7%		11.4%

AVERAGE, TWO SITES

AVERAGE		25.8	22.1	31.6	28.0
CHANGE			3.7		3.6
% CHANGE			14.3%		11.3%

FOUR HILLS HUMP "SHADOW" EFFECT, SPEED ANALYSIS

SEGMENT	ADT	85TH PERCENTILE				DISTANCE FR HUMP
		BEFORE	AFTER	BEFORE	AFTER	
STAGECOACH RD NORTH OF SAGEBRUSH		27.5	27.3	32.4	31.0	1,400 to 1,600'

AVERAGE	27.5	27.0	32.4	30.9
CHANGE		0.5		1.5
% CHANGE		2.0%		4.6%

WAGON TRAIN DR SOUTH OF RATON		26.6	26.6	31.7	30.9	>1,500'
			25.6		30.2	
			25.7		30.7	
			25.6		30.4	

AVERAGE	26.6	25.9	31.7	30.6
CHANGE		0.7		1.2
% CHANGE		2.7%		3.6%

WAGON TRAIN DR RIVA RIDGE TO BRAVOS		28.9	26.4	35.4	31.3	>2,000'
			25.4		30.7	
			26.0		31.3	
			25.3		30.6	

AVERAGE	28.9	25.8	35.4	31.0
CHANGE		3.1		4.4
% CHANGE		10.8%		12.5%

WAGON TRAIN DR EAST OF SANTA ANA		25.4	23.6	30.7	29.2	>3,300'
			23.3		28.4	
			23.4		29.1	
			23.2		28.9	

AVERAGE	25.4	23.4	30.7	28.9
CHANGE		2.0		1.8
% CHANGE		8.0%		5.9%

AVERAGE, FOUR SITES

AVERAGE	27.1	25.5	32.6	30.3
CHANGE		1.6		2.2
% CHANGE		5.9%		6.8%

FOUR HILLS RE-STRIPING, SPEED ANALYSIS

SEGMENT	ADT	AVERAGE		85TH PERCENTILE	
		BEFORE	AFTER	BEFORE	AFTER
WAGON TRAIN DR		24.9	24.7	31.0	30.6
SANTA ANA TO MATADOR		24.6	24.6	31.0	30.9
		24.7	24.5	31.0	30.4
		24.3		30.6	
AVERAGE		24.6	24.6	30.9	30.6
CHANGE			0.0		0.3
% CHANGE			0.1%		0.9%
WAGON TRAIN DR		26.6	25.1	30.9	30.0
SOUTH OF RATON		25.6	24.9	30.2	29.8
		25.6	24.9	30.7	29.7
		25.7		30.4	
AVERAGE		25.9	25.0	30.55	29.8
CHANGE			0.9		0.7
% CHANGE			3.5%		2.3%
WAGON TRAIN DR		26.4	26.0	31.3	30.6
RIVA RIDGE TO BRAVOS		25.4	25.9	30.7	30.7
		26.0	26.0	31.3	31.1
		25.3		30.6	
AVERAGE		25.8	26.0	31.0	30.8
CHANGE			-0.2		0.2
% CHANGE			-0.7%		0.6%
WAGON TRAIN DR		23.6	23.0	29.2	28.8
EAST OF SANTA ANA		23.3	23.3	28.4	28.4
		23.4	23.4	29.1	28.8
		23.2		28.9	
AVERAGE		23.4	23.2	28.9	28.7
CHANGE			0.1		0.2
% CHANGE			0.6%		0.8%
WAGON TRAIN DR					
AVERAGE, FOUR SITES					
AVERAGE		24.9	24.7	30.3	30.0
CHANGE			0.2		0.3
% CHANGE			0.9%		1.1%

SUMMARY, FOUR HILLS SPEED HUMP SECTIONS, ACCIDENTS, 1990-2005

OB	ACCIDENT		NEAREST INTERSECTION		CLASS OF INJURY IN ACCIDENT				
	DATE	'A' STREET	'B' STREET	KILL	INJ	A	B	C	
1	2/1/2003	CUATRO CERROS	WAGONTRAIN DR SE	0	0	0	0	0	
2	11/27/2002	HIDEAWAY LN SE	STAGECOACH RD SE	0	0	0	0	0	
3	3/7/2001	RUNNING WATER	STAGECOACH RD SE	0	0	0	0	0	
4	2/28/2001	STAGECOACH RD SE	WAGONTRAIN DR SE	0	1	0	0	3	
5	2/28/2001	STAGECOACH LN SE	STAGECOACH RD SE	0	0	0	0	0	
6	10/31/2001	VIA POSADA SE	WAGONTRAIN DR SE	0	1	0	0	1	
7	11/21/2000	STAGECOACH RD SE	LAMP POST CR SE	0	0	0	0	0	
8	8/14/2000	WAGONTRAIN DR SE	TORO ST SE	0	1	0	0	1	
9	5/27/2000	STAGECOACH RD SE	RUNNING WATER	0	0	0	0	0	
10	9/15/1998	STAGECOACH RD SE	FOUR HILLS RD SE	0	0	0	0	0	
11	4/19/1997	STAGECOACH RD SE	FOUR HILLS RD SE	0	0	0	0	0	
12	12/21/1996	STAGECOACH RD SE	RUNNING WATER	0	0	0	0	0	
13	11/25/1996	CUATRO CERROS	WAGONTRAIN DR SE	0	0	0	0	0	
14	4/27/1996	STAGECOACH RD SE	FOUR HILLS RD SE	0	0	0	0	0	
15	3/6/1996	WAGONTRAIN DR SE	TORO ST SE	0	1	0	0	1	
16	8/31/1995	STAGECOACH RD SE	FOUR HILLS RD SE	0	0	0	0	0	
17	10/21/1995	LAMP POST CR SE	STAGECOACH RD SE	0	0	0	0	0	
18	6/7/1995	STAGECOACH RD SE	HIDEAWAY LN SE	0	0	0	0	0	
19	4/11/1995	WAGONTRAIN DR SE	TORO ST SE	0	0	0	0	0	
20	5/4/1994	STAGECOACH RD SE	FOUR HILLS RD SE	0	1	0	1	0	
21	5/22/1994	STAGECOACH RD SE	FOUR HILLS RD SE	0	0	0	0	0	
22	4/5/1994	STAGECOACH RD SE	RUNNING WATER	0	0	0	0	0	
23	4/5/1994	STAGECOACH RD SE	RUNNING WATER	0	0	0	0	0	
24	4/20/1994	SAGEBRUSH TR SE	WAGONTRAIN DR SE	0	1	0	0	1	
25	8/2/1993	SAGEBRUSH TR SE	WAGONTRAIN DR SE	0	0	0	0	0	
26	9/14/1993	STAGECOACH RD SE	FOUR HILLS RD SE	0	0	0	0	0	
27	9/14/1993	STAGECOACH RD SE	LAMP POST CR SE	0	0	0	0	0	
28	3/2/1993	CUATRO CERROS	WAGONTRAIN DR SE	0	0	0	0	0	
29	2/17/1993	STAGECOACH RD SE	FOUR HILLS CT SE	0	0	0	0	0	
30	2/10/1992	WAGONTRAIN DR SE	VIA POSADA SE	0	0	0	0	0	
31	1/24/1992	STAGECOACH RD SE	FOUR HILLS RD SE	0	0	0	0	0	
32	10/14/1992	STAGECOACH RD SE	LAMP POST CR SE	0	0	0	0	0	
33	7/6/1992	STAGECOACH RD SE	STAGECOACH LN SE	0	1	0	1	0	
34	2/16/1992	WAGONTRAIN DR SE	VIA POSADA SE	0	0	0	0	0	
35	12/9/1992	STAGECOACH RD SE	RUNNING WATER	0	0	0	0	0	
36	7/30/1992	WAGONTRAIN DR SE	CUATRO CERROS	0	0	0	0	0	
37	4/22/1991	LAMP POST CR SE	STAGECOACH RD SE	0	1	0	0	1	
38	3/17/1990	WAGONTRAIN DR SE	VIA POSADA SE	0	0	0	0	0	
39	6/22/1990	WAGONTRAIN DR SE	VIA POSADA SE	0	0	0	0	0	
40	2/24/1990	STAGECOACH RD SE	RUNNING WATER	0	0	0	0	0	
41	9/27/1990	STAGECOACH RD SE	RUNNING WATER	0	0	0	0	0	
42	2/21/1990	STAGECOACH RD SE	FOUR HILLS RD SE	0	0	0	0	0	
TOTALS				0	8	0	2	8	

SUMMARY, FOUR HILLS SPEED HUMP SECTIONS, VEHICLES IN ACCIDENTS, 1990-2005

ACCIDENT DETAILS					NEAREST INTERSECTION		PEOPLE	
OB	YR	RPT	TIME	DATE	'A' STREET	'B' STREET	AGE	TOT
1	2003	217754	1531	2/1/2003	CUATRO CERROS	WAGONTRAIN DR SE	68	2
2	2003	217754	1531	2/1/2003	CUATRO CERROS	WAGONTRAIN DR SE	47	1
3	2002	10016749	2019	11/27/2002	HIDEAWAY LN SE	STAGECOACH RD SE	15	3
4	2001	99574	1301	3/7/2001	RUNNING WATER	STAGECOACH RD SE	43	4
5	2001	99574	1301	3/7/2001	RUNNING WATER	STAGECOACH RD SE	63	1
6	2001	321527	1010	2/28/2001	STAGECOACH RD SE	WAGONTRAIN DR SE	76	2
7	2001	321527	1010	2/28/2001	STAGECOACH RD SE	WAGONTRAIN DR SE	55	1
8	2001	322109	900	2/28/2001	STAGECOACH LN SE	STAGECOACH RD SE	45	1
9	2001	322109	900	2/28/2001	STAGECOACH LN SE	STAGECOACH RD SE		1
10	2001	462013	1133	10/31/2001	VIA POSADA SE	WAGONTRAIN DR SE		2
11	2001	462013	1133	10/31/2001	VIA POSADA SE	WAGONTRAIN DR SE	46	1
12	2000	359891	1318	11/21/2000	STAGECOACH RD SE	LAMP POST CR SE		1
13	2000	409787	1209	8/14/2000	WAGONTRAIN DR SE	TORO ST SE	74	1
14	2000	409787	1209	8/14/2000	WAGONTRAIN DR SE	TORO ST SE		0
15	2000	867698	948	5/27/2000	STAGECOACH RD SE	RUNNING WATER	14	1
16	1998	562243	1306	9/15/1998	STAGECOACH RD SE	FOUR HILLS RD SE	64	1
17	1998	562243	1306	9/15/1998	STAGECOACH RD SE	FOUR HILLS RD SE	38	2
18	1997	692226	50	4/19/1997	STAGECOACH RD SE	FOUR HILLS RD SE	23	1
19	1996	659429	230	12/21/1996	STAGECOACH RD SE	RUNNING WATER	22	1
20	1996	661377	926	11/25/1996	CUATRO CERROS	WAGONTRAIN DR SE	42	1
21	1996	661377	926	11/25/1996	CUATRO CERROS	WAGONTRAIN DR SE	66	1
22	1996	444604	1	4/27/1996	STAGECOACH RD SE	FOUR HILLS RD SE	22	1
23	1996	472861	2059	3/6/1996	WAGONTRAIN DR SE	TORO ST SE	43	1
24	1996	472861	2059	3/6/1996	WAGONTRAIN DR SE	TORO ST SE	16	1
25	1995	515861	1500	8/31/1995	STAGECOACH RD SE	FOUR HILLS RD SE	52	1
26	1995	515861	1500	8/31/1995	STAGECOACH RD SE	FOUR HILLS RD SE	74	1
27	1995	516476	2004	10/21/1995	LAMP POST CR SE	STAGECOACH RD SE	15	3
28	1995	355844	1421	6/7/1995	STAGECOACH RD SE	HIDEAWAY LN SE	0	1
29	1995	356130	1140	4/11/1995	WAGONTRAIN DR SE	TORO ST SE	83	1
30	1995	356130	1140	4/11/1995	WAGONTRAIN DR SE	TORO ST SE	47	1
31	1994	197308	715	5/4/1994	STAGECOACH RD SE	FOUR HILLS RD SE	16	1
32	1994	202862	30	5/22/1994	STAGECOACH RD SE	FOUR HILLS RD SE	28	2
33	1994	202862	30	5/22/1994	STAGECOACH RD SE	FOUR HILLS RD SE	21	2
34	1994	203349	1230	4/5/1994	STAGECOACH RD SE	RUNNING WATER	69	1
35	1994	203349	1230	4/5/1994	STAGECOACH RD SE	RUNNING WATER	0	1
36	1994	203437	1200	4/5/1994	STAGECOACH RD SE	RUNNING WATER	77	1
37	1994	203437	1200	4/5/1994	STAGECOACH RD SE	RUNNING WATER	0	1
38	1994	215826	900	4/20/1994	SAGEBRUSH TR SE	WAGONTRAIN DR SE	56	2

SUMMARY, FOUR HILLS SPEED HUMP SECTIONS, VEHICLES IN ACCIDENTS, 1990-2005

ACCIDENT DETAILS					NEAREST INTERSECTION		PEOPLE	
OB	YR	RPT	TIME	DATE	'A' STREET	'B' STREET	AGE	TOT
39	1993	143732	900	8/2/1993	SAGEBRUSH TR SE	WAGONTRAIN DR SE	0	1
40	1993	143732	900	8/2/1993	SAGEBRUSH TR SE	WAGONTRAIN DR SE		0
41	1993	931623	2014	9/14/1993	STAGECOACH RD SE	FOUR HILLS RD SE	30	1
42	1993	931624	2100	9/14/1993	STAGECOACH RD SE	LAMP POST CR SE	77	1
43	1993	931624	2100	9/14/1993	STAGECOACH RD SE	LAMP POST CR SE		0
44	1993	982897	800	3/2/1993	CUATRO CERROS	WAGONTRAIN DR SE	17	1
45	1993	983200	1715	2/17/1993	STAGECOACH RD SE	FOUR HILLS CT SE	40	1
46	1993	983200	1715	2/17/1993	STAGECOACH RD SE	FOUR HILLS CT SE	86	1
47	1992	939686	1320	2/10/1992	WAGONTRAIN DR SE	VIA POSADA SE	65	1
48	1992	698319	2136	1/24/1992	STAGECOACH RD SE	FOUR HILLS RD SE	29	1
49	1992	53284	1550	10/14/1992	STAGECOACH RD SE	LAMP POST CR SE	34	1
50	1992	53284	1550	10/14/1992	STAGECOACH RD SE	LAMP POST CR SE	30	1
51	1992	871268	1611	7/6/1992	STAGECOACH RD SE	STAGECOACH LN SE	15	1
52	1992	871289	2335	2/16/1992	WAGONTRAIN DR SE	VIA POSADA SE	17	1
53	1992	924695	2340	12/9/1992	STAGECOACH RD SE	RUNNING WATER	20	1
54	1992	925516	2245	7/30/1992	WAGONTRAIN DR SE	CUATRO CERROS	0	1
55	1992	925516	2245	7/30/1992	WAGONTRAIN DR SE	CUATRO CERROS		0
56	1991	761757	2110	4/22/1991	LAMP POST CR SE	STAGECOACH RD SE	22	2
57	1991	761757	2110	4/22/1991	LAMP POST CR SE	STAGECOACH RD SE	52	1
58	1990	519574	0	3/17/1990	WAGONTRAIN DR SE	VIA POSADA SE	0	1
59	1990	578199	755	6/22/1990	WAGONTRAIN DR SE	VIA POSADA SE	25	1
60	1990	644592	1130	2/24/1990	STAGECOACH RD SE	RUNNING WATER	20	1
61	1990	644592	1130	2/24/1990	STAGECOACH RD SE	RUNNING WATER	44	1
62	1990	718576	1407	9/27/1990	STAGECOACH RD SE	RUNNING WATER	63	1
63	1990	718576	1407	9/27/1990	STAGECOACH RD SE	RUNNING WATER	48	1
64	1990	718733	0	2/21/1990	STAGECOACH RD SE	FOUR HILLS RD SE	0	1
65	1990	718733	0	2/21/1990	STAGECOACH RD SE	FOUR HILLS RD SE	0	1

SUMMARY, FOUR HILLS SPEED HUMP SECTIONS, VEHICLES IN ACCIDENTS, 1990-2005

ACCIDENT		NEAREST INTERSECTION		CLASS OF INJURY IN ACCIDENT				
OB	DATE	'A' STREET	'B' STREET	KILL	INJ	A	B	C
1	2/1/2003	CUATRO CERROS	WAGONTRAIN DR SE	0	NO	0	0	0
2	2/1/2003	CUATRO CERROS	WAGONTRAIN DR SE	0	NO	0	0	0
3	11/27/2002	HIDEAWAY LN SE	STAGECOACH RD SE	0	NO	0	0	0
4	3/7/2001	RUNNING WATER	STAGECOACH RD SE	0	NO	0	0	0
5	3/7/2001	RUNNING WATER	STAGECOACH RD SE	0	NO	0	0	0
6	2/28/2001	STAGECOACH RD SE	WAGONTRAIN DR SE	0	YES	0	0	2
7	2/28/2001	STAGECOACH RD SE	WAGONTRAIN DR SE	0	YES	0	0	1
8	2/28/2001	STAGECOACH LN SE	STAGECOACH RD SE	0	NO	0	0	0
9	2/28/2001	STAGECOACH LN SE	STAGECOACH RD SE	0	NO	0	0	0
10	10/31/2001	VIA POSADA SE	WAGONTRAIN DR SE	0	YES	0	0	0
11	10/31/2001	VIA POSADA SE	WAGONTRAIN DR SE	0	YES	0	0	1
12	11/21/2000	STAGECOACH RD SE	LAMP POST CR SE	0	NO	0	0	0
13	8/14/2000	WAGONTRAIN DR SE	TORO ST SE	0	YES	0	0	1
14	8/14/2000	WAGONTRAIN DR SE	TORO ST SE	0	YES	0	0	0
15	5/27/2000	STAGECOACH RD SE	RUNNING WATER	0	NO	0	0	0
16	9/15/1998	STAGECOACH RD SE	FOUR HILLS RD SE	0	NO	0	0	0
17	9/15/1998	STAGECOACH RD SE	FOUR HILLS RD SE	0	NO	0	0	0
18	4/19/1997	STAGECOACH RD SE	FOUR HILLS RD SE	0	NO	0	0	0
19	12/21/1996	STAGECOACH RD SE	RUNNING WATER	0	NO	0	0	0
20	11/25/1996	CUATRO CERROS	WAGONTRAIN DR SE	0	NO	0	0	0
21	11/25/1996	CUATRO CERROS	WAGONTRAIN DR SE	0	NO	0	0	0
22	4/27/1996	STAGECOACH RD SE	FOUR HILLS RD SE	0	NO	0	0	0
23	3/6/1996	WAGONTRAIN DR SE	TORO ST SE	0	YES	0	0	0
24	3/6/1996	WAGONTRAIN DR SE	TORO ST SE	0	YES	0	0	1
25	8/31/1995	STAGECOACH RD SE	FOUR HILLS RD SE	0	NO	0	0	0
26	8/31/1995	STAGECOACH RD SE	FOUR HILLS RD SE	0	NO	0	0	0
27	10/21/1995	LAMP POST CR SE	STAGECOACH RD SE	0	NO	0	0	0
28	6/7/1995	STAGECOACH RD SE	HIDEAWAY LN SE	0	NO	0	0	0
29	4/11/1995	WAGONTRAIN DR SE	TORO ST SE	0	NO	0	0	0
30	4/11/1995	WAGONTRAIN DR SE	TORO ST SE	0	NO	0	0	0
31	5/4/1994	STAGECOACH RD SE	FOUR HILLS RD SE	0	YES	0	1	0
32	5/22/1994	STAGECOACH RD SE	FOUR HILLS RD SE	0	NO	0	0	0
33	5/22/1994	STAGECOACH RD SE	FOUR HILLS RD SE	0	NO	0	0	0
34	4/5/1994	STAGECOACH RD SE	RUNNING WATER	0	NO	0	0	0
35	4/5/1994	STAGECOACH RD SE	RUNNING WATER	0	NO	0	0	0
36	4/5/1994	STAGECOACH RD SE	RUNNING WATER	0	NO	0	0	0
37	4/5/1994	STAGECOACH RD SE	RUNNING WATER	0	NO	0	0	0
38	4/20/1994	SAGEBRUSH TR SE	WAGONTRAIN DR SE	0	YES	0	0	1

SUMMARY, FOUR HILLS SPEED HUMP SECTIONS, VEHICLES IN ACCIDENTS, 1990-2005

ACCIDENT		NEAREST INTERSECTION		CLASS OF INJURY IN ACCIDENT				
OB	DATE	'A' STREET	'B' STREET	KILL	INJ	A	B	C
39	8/2/1993	SAGEBRUSH TR SE	WAGONTRAIN DR SE	0	NO	0	0	0
40	8/2/1993	SAGEBRUSH TR SE	WAGONTRAIN DR SE	0	NO	0	0	0
41	9/14/1993	STAGECOACH RD SE	FOUR HILLS RD SE	0	NO	0	0	0
42	9/14/1993	STAGECOACH RD SE	LAMP POST CR SE	0	NO	0	0	0
43	9/14/1993	STAGECOACH RD SE	LAMP POST CR SE	0	NO	0	0	0
44	3/2/1993	CUATRO CERROS	WAGONTRAIN DR SE	0	NO	0	0	0
45	2/17/1993	STAGECOACH RD SE	FOUR HILLS CT SE	0	NO	0	0	0
46	2/17/1993	STAGECOACH RD SE	FOUR HILLS CT SE	0	NO	0	0	0
47	2/10/1992	WAGONTRAIN DR SE	VIA POSADA SE	0	NO	0	0	0
48	1/24/1992	STAGECOACH RD SE	FOUR HILLS RD SE	0	NO	0	0	0
49	10/14/1992	STAGECOACH RD SE	LAMP POST CR SE	0	NO	0	0	0
50	10/14/1992	STAGECOACH RD SE	LAMP POST CR SE	0	NO	0	0	0
51	7/6/1992	STAGECOACH RD SE	STAGECOACH LN SE	0	YES	0	1	0
52	2/16/1992	WAGONTRAIN DR SE	VIA POSADA SE	0	NO	0	0	0
53	12/9/1992	STAGECOACH RD SE	RUNNING WATER	0	NO	0	0	0
54	7/30/1992	WAGONTRAIN DR SE	CUATRO CERROS	0	NO	0	0	0
55	7/30/1992	WAGONTRAIN DR SE	CUATRO CERROS	0	NO	0	0	0
56	4/22/1991	LAMP POST CR SE	STAGECOACH RD SE	0	YES	0	0	1
57	4/22/1991	LAMP POST CR SE	STAGECOACH RD SE	0	YES	0	0	0
58	3/17/1990	WAGONTRAIN DR SE	VIA POSADA SE	0	NO	0	0	0
59	6/22/1990	WAGONTRAIN DR SE	VIA POSADA SE	0	NO	0	0	0
60	2/24/1990	STAGECOACH RD SE	RUNNING WATER	0	NO	0	0	0
61	2/24/1990	STAGECOACH RD SE	RUNNING WATER	0	NO	0	0	0
62	9/27/1990	STAGECOACH RD SE	RUNNING WATER	0	NO	0	0	0
63	9/27/1990	STAGECOACH RD SE	RUNNING WATER	0	NO	0	0	0
64	2/21/1990	STAGECOACH RD SE	FOUR HILLS RD SE	0	NO	0	0	0
65	2/21/1990	STAGECOACH RD SE	FOUR HILLS RD SE	0	NO	0	0	0

**INTERSECTION TRAFFIC COUNT
WAGON TRAIN RD & CUARTRO CERROS**

**ALBUQUERQUE, NM ABQ # 12007
4/03/2007 (TUE)**

4:45 - 5:45 PM

141

M. CUNNEEN

SB PHF 0.820
SB HV 0.7%
SB BIKES 0
SB PEDS 0

17 101 23
| | |
<— v - ->

WB PHF 0.708
WB HV 5.9%
WB BIKES 2
WB PEDS 0

13 —|

PHF 0.903
TEV 224
HV 1.3%

16

14 1 —>

<— 0 17

0 —|
v

<— ^ —> v
| | |

1

EB PHF 0.583
EB HV 0.0%
EB BIKES 1
EB PEDS 0

0 52 0

NB PHF 0.929
NB HV 1.9%
NB BIKES 0
NB PEDS 0

15-MIN PERIOD	EASTBOUND			WESTBOUND			NORTHBOUND			SOUTHBOUND			TOT
	LFT	TH	RGT	LFT	TH	RGT	LFT	TH	RGT	LFT	TH	RGT	
4:45 CAR	2	0	0	0	0	3	0	13	0	2	30	11	61
HV	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	2	0	0	0	0	3	0	13	0	2	30	11	61
5:00 CAR	6	0	0	1	0	4	0	12	0	7	23	3	56
HV	0	0	0	0	0	1	0	0	0	1	0	0	2
TOT	6	0	0	1	0	5	0	12	0	8	23	3	58
5:15 CAR	2	1	0	0	0	4	0	13	0	13	25	3	61
HV	0	0	0	0	0	0	0	1	0	0	0	0	1
TOT	2	1	0	0	0	4	0	14	0	13	25	3	62
5:30 CAR	1	0	0	0	0	4	0	13	0	0	23	0	43
HV	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	3	0	0	0	0	4	0	13	0	0	23	0	43
INT PK HR	13	1	0	1	0	16	0	52	0	23	101	17	224
PEAK HOUR HEAVY VEHICLES - TRUCKS, BUSES, & REC VEHICLES													
TRUCKS	0	0	0	0	0	1	0	1	0	1	0	0	3
BUSES	0	0	0	0	0	0	0	0	0	0	0	0	0
RV'S	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT HV	0	0	0	0	0	1	0	1	0	1	0	0	3
HV %	0.0	0.0	NA	0.0	NA	6.3	NA	1.9	NA	4.3	0.0	0.0	1.3
STOP BUSE	0	0	0	0	0	0	0	0	0	0	0	0	0
BIKES	0	1	0	0	2	0	0	0	0	0	0	0	3
PEDS		0			0			0			0		0

**INTERSECTION TRAFFIC COUNT
WAGON TRAIN RD & VIA POSADA**

ALBUQUERQUE, NM ABQ # 12007
4/03/2007 (TUE)

4:45 - 5:45 PM			237			M. CUNNEEN		
SB PHF	0.823	51	186	0	WB PHF	NA		
SB HV	0.0%				WB HV	0.0%		
SB BIKES	0				WB BIKES	0		
SB PEDS	0	<—	v	- ->	WB PEDS	1		
	^					^		
	12	—			PHF	0.874	—	0
					TEV	332		
	12	0 —>			HV	0.3%	<—	0 0
	0	—					—	0
		v						
EB PHF	0.750				NB PHF	0.865		
EB HV	0.0%	1	82	0	NB HV	1.2%		
EB BIKES	0				NB BIKES	0		
EB PEDS	0		83		NB PEDS	0		

15-MIN PERIOD	EASTBOUND			WESTBOUND			NORTHBOUND			SOUTHBOUND			TOT
	LFT	TH	RGT	LFT	TH	RGT	LFT	TH	RGT	LFT	TH	RGT	
4:45 CAR	3	0	0	0	0	0	0	17	0	0	46	9	75
HV	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	3	0	0	0	0	0	0	17	0	0	46	9	75
5:00 CAR	4	0	0	0	0	0	0	21	0	0	40	10	75
HV	0	0	0	0	0	0	0	1	0	0	0	0	1
TOT	4	0	0	0	0	0	0	22	0	0	40	10	76
5:15 CAR	3	0	0	0	0	0	0	20	0	0	52	20	95
HV	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	3	0	0	0	0	0	0	20	0	0	52	20	95
5:30 CAR	2	0	0	0	0	0	1	23	0	0	48	12	86
HV	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	2	0	0	0	0	0	1	23	0	0	48	12	86
INT PK HR	12	0	0	0	0	0	1	82	0	0	186	51	332
PEAK HOUR HEAVY VEHICLES - TRUCKS, BUSES, & REC VEHICLES													
TRUCKS	0	0	0	0	0	0	0	1	0	0	0	0	1
BUSES	0	0	0	0	0	0	0	0	0	0	0	0	0
RV'S	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT HV	0	0	0	0	0	0	0	1	0	0	0	0	1
HV %	0.0	NA	NA	NA	NA	NA	0.0	1.2	NA	NA	0.0	0.0	0.3
STOP BUSE	0	0	0	0	0	0	0	0	0	0	0	0	0
BIKES	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDS		0			1			0			0		1

**INTERSECTION TRAFFIC COUNT
STAGECOACH RD & WARM SANDS DR**

ALBUQUERQUE, NM

**ABQ # 12007
4/05/2007 (THU)**

4:45 - 5:45 PM

1

M. CUNNEEN

SB PHF 0.250
SB HV 0.0%
SB BIKES 0
SB PEDS 0

1 0 0
| | |
← v - ->

WB PHF 0.730
WB HV 0.0%
WB BIKES 2
WB PEDS 0

1
132 131
0

PHF 0.853
TEV 208
HV 0.8%

0
133 133
0

EB PHF 0.846
EB HV 1.5%
EB BIKES 1
EB PEDS 0

0 0 0
| | |
← ^ -> v

NB PHF NA
NB HV 0.0%
NB BIKES 0
NB PEDS 0

15-MIN PERIOD	EASTBOUND			WESTBOUND			NORTHBOUND			SOUTHBOUND			TOT
	LFT	TH	RGT	LFT	TH	RGT	LFT	TH	RGT	LFT	TH	RGT	
4:45 CAR	0	37	0	0	24	0	0	0	0	0	0	0	61
HV	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	37	0	0	24	0	0	0	0	0	0	0	61
5:00 CAR	0	22	0	0	36	0	0	0	0	0	0	0	58
HV	0	1	0	0	0	0	0	0	0	0	0	0	1
TOT	0	23	0	0	36	0	0	0	0	0	0	0	59
5:15 CAR	0	33	0	0	45	0	0	0	0	0	0	0	78
HV	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	33	0	0	45	0	0	0	0	0	0	0	78
5:30 CAR	1	37	0	0	28	0	0	0	0	0	0	1	67
HV	0	1	0	0	0	0	0	0	0	0	0	0	1
TOT	1	38	0	0	28	0	0	0	0	0	0	1	68
INT PK HR	1	131	0	0	133	0	0	0	0	0	0	1	268
PEAK HOUR HEAVY VEHICLES - TRUCKS, BUSES, & REC VEHICLES													
TRUCKS	0	2	0	0	0	0	0	0	0	0	0	0	2
BUSES	0	0	0	0	0	0	0	0	0	0	0	0	0
RV'S	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT HV	0	2	0	0	0	0	0	0	0	0	0	0	2
HV %	0.0	1.5	NA	NA	0.0	NA	NA	NA	NA	NA	NA	0.0	0.8
STOP BUSE	0	0	0	0	0	0	0	0	0	0	0	0	0
BIKES	0	1	0	0	2	0	0	0	0	0	0	0	3
PEDS		0			0			0			0		0

**INTERSECTION TRAFFIC COUNT
STAGECOACH RD & STAGECOACH LN**

**ALBUQUERQUE, NM ABQ # 12007
4/05/2007 (THU)**

4:45 - 5:45 PM

0

M. CUNNEEN

SB PHF NA
SB HV 0.0%
SB BIKES 0
SB PEDS 0

0 0 0
| | |
← v - ->

WB PHF 0.788
WB HV 0.0%
WB BIKES 2
WB PEDS 0

0 —|

PHF 0.853
TEV 286
HV 0.8%

—| 0

132 82 —>

← 110 110

50 —|
v

← — ^ —> v
| | |

—| 0

EB PHF 0.846
EB HV 1.5%
EB BIKES 0
EB PEDS 0

23 0 1

NB PHF 0.600
NB HV 0.0%
NB BIKES 0
NB PEDS 0

24

15-MIN PERIOD	EASTBOUND			WESTBOUND			NORTHBOUND			SOUTHBOUND			TOT
	LFT	TH	RGT	LFT	TH	RGT	LFT	TH	RGT	LFT	TH	RGT	
4:45 CAR	0	25	12	0	20	0	4	0	0	0	0	0	61
HV	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	25	12	0	20	0	4	0	0	0	0	0	61
5:00 CAR	0	13	9	0	31	0	5	0	0	0	0	0	58
HV	0	1	0	0	0	0	0	0	0	0	0	0	1
TOT	0	14	9	0	31	0	5	0	0	0	0	0	59
5:15 CAR	0	23	10	0	35	0	10	0	0	0	0	0	78
HV	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	23	10	0	35	0	10	0	0	0	0	0	78
5:30 CAR	0	20	18	0	24	0	4	0	1	0	0	0	67
HV	0	0	1	0	0	0	0	0	0	0	0	0	1
TOT	0	20	19	0	24	0	4	0	1	0	0	0	68
INT PK HR	0	82	50	0	110	0	23	0	1	0	0	0	286
PEAK HOUR HEAVY VEHICLES - TRUCKS, BUSES, & REC VEHICLES													
TRUCKS	0	1	1	0	0	0	0	0	0	0	0	0	2
BUSES	0	0	0	0	0	0	0	0	0	0	0	0	0
RV'S	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT HV	0	1	1	0	0	0	0	0	0	0	0	0	2
HV %	NA	1.2	2.0	NA	0.0	NA	0.0	NA	0.0	NA	NA	NA	0.8
STOP BUSE	0	0	0	0	0	0	0	0	0	0	0	0	0
BIKES	0	0	0	0	2	0	0	0	0	0	0	0	2
PEDS		0			0			0			0		0

**INTERSECTION TRAFFIC COUNT
FOUR HILLS RD & STAGECOACH RD (SOUTH)**

ALBUQUERQUE, NM

**ABQ # 12007
4/04/2007 (WED)**

4:45 - 5:45 PM

0

M. CUNNEEN

SB PHF NA
SB HV 0.0%
SB BIKES 0
SB PEDS 0

0 0 0
| | |
← v - ->

WB PHF 0.879
WB HV 1.0%
WB BIKES 2
WB PEDS 0

0 —|

PHF 0.938
TEV 304
HV 1.3%

—| 0
← 102 102

174 154 —>

20 —|
v

← ^ -> v
| | |

—| 0
v

EB PHF 0.926
EB HV 1.7%
EB BIKES 1
EB PEDS 0

20 0 8
28

NB PHF 0.700
NB HV 0.0%
NB BIKES 0
NB PEDS 0

15-MIN PERIOD	EASTBOUND			WESTBOUND			NORTHBOUND			SOUTHBOUND			TOT
	LFT	TH	RGT	LFT	TH	RGT	LFT	TH	RGT	LFT	TH	RGT	
4:45 CAR	0	30	5	0	19	0	6	0	2	0	0	0	62
HV	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	30	5	0	19	0	6	0	2	0	0	0	62
5:00 CAR	0	42	2	0	27	0	7	0	3	0	0	0	81
HV	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	42	2	0	27	0	7	0	3	0	0	0	81
5:15 CAR	0	38	9	0	26	0	5	0	3	0	0	0	81
HV	0	1	0	0	1	0	0	0	0	0	0	0	2
TOT	0	39	9	0	27	0	5	0	3	0	0	0	83
5:30 CAR	0	41	4	0	29	0	2	0	0	0	0	0	76
HV	0	2	0	0	0	0	0	0	0	0	0	0	2
TOT	0	43	4	0	29	0	2	0	0	0	0	0	78
INT PK HR	0	154	20	0	102	0	20	0	8	0	0	0	304
PEAK HOUR HEAVY VEHICLES - TRUCKS, BUSES, & REC VEHICLES													
TRUCKS	0	3	0	0	1	0	0	0	0	0	0	0	4
BUSES	0	0	0	0	0	0	0	0	0	0	0	0	0
RV'S	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT HV	0	3	0	0	1	0	0	0	0	0	0	0	4
HV %	NA	1.9	0.0	NA	1.0	NA	0.0	NA	0.0	NA	NA	NA	1.3
STOP BUSE	0	0	0	0	0	0	0	0	0	0	0	0	0
BIKES	0	1	0	0	2	0	0	0	0	0	0	0	3
PEDS		0			0			0			0		0

**INTERSECTION TRAFFIC COUNT
FOUR HILLS RD & STAGECOACH RD (NORTH)**

ALBUQUERQUE, NM

**ABQ # 12007
4/04/2007 (WED)**

4:45 - 5:45 PM

403

M. CUNNEEN

SB PHF	0.924	234	169	0	WB PHF	NA
SB HV	1.5%				WB HV	0.0%
SB BIKES	0	 	 	 	WB BIKES	2
SB PEDS	0	<—	v	- ->	WB PEDS	0
	^				^	
	141	— 			 —	0
146	0	—>			<—	0 0
	5	— 			 —	0
	v		<—	^	->	v
			 	 	 	
EB PHF	0.849				NB PHF	0.897
EB HV	2.7%	2	120	0	NB HV	0.8%
EB BIKES	1				NB BIKES	0
EB PEDS	0		122		NB PEDS	0

PHF	0.912
TEV	671
HV	1.6%

15-MIN PERIOD	EASTBOUND			WESTBOUND			NORTHBOUND			SOUTHBOUND			TOT
	LFT	TH	RGT	LFT	TH	RGT	LFT	TH	RGT	LFT	TH	RGT	
4:45 CAR	27	0	2	0	0	0	0	25	0	0	33	57	144
HV	0	0	0	0	0	0	0	0	0	0	0	2	2
TOT	27	0	2	0	0	0	0	25	0	0	33	59	146
5:00 CAR	30	0	1	0	0	0	1	33	0	0	43	53	161
HV	1	0	0	0	0	0	0	0	0	0	0	0	1
TOT	31	0	1	0	0	0	1	33	0	0	43	53	162
5:15 CAR	40	0	1	0	0	0	0	31	0	0	46	62	180
HV	2	0	0	0	0	0	0	1	0	0	1	0	4
TOT	42	0	1	0	0	0	0	32	0	0	47	62	184
5:30 CAR	40	0	1	0	0	0	1	30	0	0	44	59	175
HV	1	0	0	0	0	0	0	0	0	0	2	1	4
TOT	41	0	1	0	0	0	1	30	0	0	46	60	179
INT PK HR	141	0	5	0	0	0	2	120	0	0	169	234	671

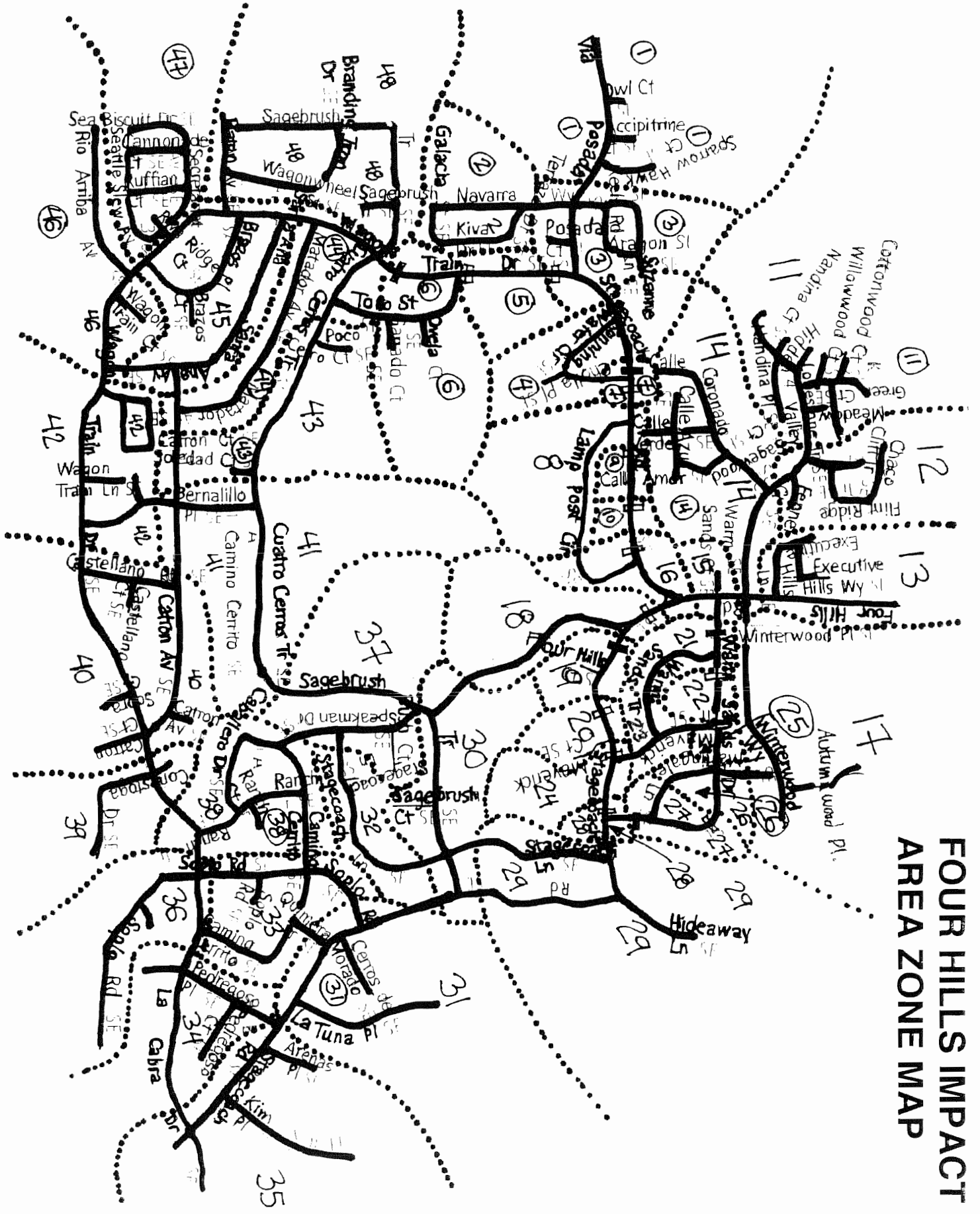
PEAK HOUR HEAVY VEHICLES - TRUCKS, BUSES, & REC VEHICLES

TRUCKS	4	0	0	0	0	0	0	1	0	0	3	3	11
BUSES	0	0	0	0	0	0	0	0	0	0	0	0	0
RV'S	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT HV	4	0	0	0	0	0	0	1	0	0	3	3	11
HV %	2.8	NA	0.0	NA	NA	NA	0.0	0.8	NA	NA	1.8	1.3	1.6
STOP BUSE	0	0	0	0	0	0	0	0	0	0	0	0	0
BIKES	0	1	0	0	2	0	0	0	0	0	0	0	3
PEDS		0			0			0			0		0

**CENSUS TRACT 7.10, ALBUQUERQUE
2000 CENSUS BLOCK POPULATION**

BLOCK	POP	NGBH	BLOCK	POP	NGBH
1000	34	FHV	2025	15	WWP
1001	278	FHV	2026	19	WWP
1002	19	FHV	2027	293	FHV
1003	43	FHV	2028	6	WWP
1004	6	FHV	2029	10	WWP
1005	4	FHV	2030	10	NFH
1006	0	FHV	2031	0	UNIN
1007	4	FHV	2032	0	FHV
1008	72	FHV	2033	85	FHV
1009	32	FHV	2034	84	FHV
1010	14	FHV	2035	25	FHV
1011	18	FHV	2036	30	FHV
1012	54	FHV	2037	36	FHV
1013	56	FHV	2038	43	FHV
1014	28	FHV	2039	33	FHV
1015	97	FHV	2040	117	FHV
1016	101	FHV	2041	0	FHV
1017	53	FHV	2042	38	FHV
1018	145	FHV	2043	7	FHV
2000	2	FHV	2044	12	FHV
2001	1	FHV	2045	38	FHV
2002	22	FHV	2046	90	FHV
2003	9	FHV	2047	66	FHV
2004	191	FHV	2048	41	FHV
2005	4	FHV	2049	0	FHV
2006	0	FHV	2050	3	FHV
2007	22	FHV	3000	651	FHV/TJA
2008	2	FHV	3001	0	TJA
2009	12	FHV	3002	20	TJA
2010	1	FHV	3003	0	TJA
2011	0	FHV	3004	17	FHV
2012	0	FHV	3005	31	FHV
2013	0	UNIN	3006	0	FHV
2014	2	UNIN	3007	0	FHV
2015	0	NFH	3008	0	TJA
2016	0	UNIN	3009	26	TJA
2017	0	UNIN	3010	64	FHV
2018	19	NFH	3011	72	FHV
2019	0	NFH	3012	0	FHV
2020	0	NFH	TOTAL	3611	
2021	249	NFH			
2022	0	NFH	FHV (EST)		<u>2549</u>
2023	0	NFH	IMPACT AREA		<u>3280</u>
2024	35	NFH			

FOUR HILLS IMPACT AREA ZONE MAP



ESTIMATED FATALITIES DUE TO SPEED HUMP DELAYS, 50 YEARS, WITH SE DETOUR

7/3/2007

ZONE	HOME	POP	MILES	30MPH		25MPH		SPEED HUMP ²		DEATH 25MPH		DEATH 30MPH	
				TIME	TIME	EXIST	REC	EXIST	REC	EXIST	REC		
1	40	85	0.28	2.06	2.17	0	0	0.000	0.000	0.000	0.000	0.000	0.000
2	49	105	0.54	2.58	2.80	0	0	0.000	0.000	0.000	0.000	0.000	0.000
3	41	87	0.55	2.60	2.82	0	0	0.000	0.000	0.000	0.000	0.000	0.000
4	23	49	0.61	2.72	2.96	1	1	0.049	0.049	0.041	0.041	0.041	0.041
5	8	17	0.50	2.50	2.70	1	1	0.014	0.014	0.014	0.014	0.014	0.014
6	26	55	0.67	2.84	3.11	2	2	0.139	0.139	0.092	0.092	0.092	0.092
7	4	9	0.60	2.70	2.94	2	2	0.019	0.019	0.015	0.015	0.015	0.015
8	0	1	0.80	3.10	3.42	3	2	0.004	0.003	0.004	0.003	0.004	0.003
9	8	17	0.76	3.02	3.32	4	2	0.092	0.043	0.086	0.043	0.086	0.043
10	0	0	0.82	3.14	3.47	5	2	0.000	0.000	0.000	0.000	0.000	0.000
11	98	209	1.16	3.82	4.28	3	2	1.580	1.053	1.027	0.644	1.027	0.644
12	61	130	1.12	3.74	4.19	3	2	0.983	0.655	0.601	0.400	0.601	0.400
13	26	55	1.24	3.98	4.48	6	2	0.634	0.218	0.815	0.261	0.815	0.261
14	73	156	0.88	3.26	3.61	3	2	0.721	0.480	0.590	0.393	0.590	0.393
15	10	21	1.04	3.58	4.00	6	2	0.318	0.106	0.194	0.065	0.194	0.065
16	9	19	0.92	3.34	3.71	6	2	0.206	0.059	0.163	0.048	0.163	0.048
17	25	53	1.38	4.26	4.81	6	2	0.449	0.200	0.721	0.267	0.721	0.267
18	9	19	1.06	3.62	4.04	7	2	0.334	0.096	0.229	0.059	0.229	0.059
19	8	17	1.12	3.74	4.19	8	3	0.307	0.129	0.278	0.079	0.278	0.079
20	6	13	1.22	3.94	4.43	9	3	0.224	0.082	0.278	0.087	0.278	0.087
21	9	19	1.16	3.82	4.28	7	3	0.291	0.144	0.285	0.093	0.285	0.093
22	0	0	1.20	3.90	4.38	8	3	0.000	0.000	0.000	0.000	0.000	0.000
23	11	23	1.34	4.18	4.72	10	3	0.313	0.130	0.504	0.174	0.504	0.174
24	0	0	1.28	4.06	4.57	10	3	0.000	0.000	0.000	0.000	0.000	0.000
25	5	11	1.24	3.98	4.48	9	4	0.177	0.085	0.238	0.108	0.238	0.108
26	11	23	1.30	4.10	4.62	10	4	0.345	0.174	0.522	0.232	0.522	0.232
27	6	13	1.36	4.22	4.76	11	5	0.183	0.106	0.305	0.157	0.305	0.157
28	4	9	1.34	4.18	4.72	11	3	0.131	0.051	0.214	0.068	0.214	0.068
29	32	68	1.51	4.52	5.12	12	4	0.650	0.267	1.245	0.514	1.245	0.514
30	29	62	1.86	5.22	5.96	12	4	0.187	0.082	0.553	0.243	0.553	0.243
31	30	64	1.93	5.36	6.13	12	4	0.157	0.072	0.477	0.208	0.477	0.208
32	28	60	1.86	5.22	5.96	4	2	0.080	0.046	0.235	0.118	0.235	0.118
33	39	83	2.16	5.82	6.68	4	2	0.046	0.023	0.171	0.105	0.171	0.105
34	31	66	2.15	5.80	6.66	4	2	0.037	0.018	0.143	0.083	0.143	0.083
35	16	34	2.17	5.84	6.71	4	2	0.019	0.010	0.067	0.043	0.067	0.043
36	41	87	2.01	5.52	6.32	12	4	0.183	0.082	0.512	0.219	0.512	0.219
37	42	90	1.71	4.92	5.60	4	2	0.227	0.113	0.451	0.275	0.451	0.275
38	54	115	1.91	5.32	6.08	4	2	0.129	0.064	0.398	0.225	0.398	0.225
39	35	75	1.72	4.94	5.63	4	2	0.189	0.095	0.355	0.208	0.355	0.208
40	78	166	1.61	4.72	5.36	3	1	0.436	0.163	0.941	0.314	0.941	0.314
41	49	105	1.33	4.16	4.69	3	1	0.595	0.198	0.794	0.265	0.794	0.265
42	74	158	1.48	4.46	5.05	3	1	0.465	0.155	0.956	0.358	0.956	0.358
43	45	96	1.00	3.50	3.90	3	1	0.585	0.148	0.444	0.148	0.444	0.148
44	65	139	1.00	3.50	3.90	3	1	0.847	0.214	0.642	0.214	0.642	0.214
45	82	175	1.04	3.58	4.00	3	1	1.323	0.441	0.809	0.270	0.809	0.270
46	47	100	1.20	3.90	4.38	3	1	0.680	0.252	0.609	0.154	0.609	0.154
47	61	130	1.21	3.92	4.40	3	1	0.860	0.328	0.830	0.200	0.830	0.200
48	89	190	1.01	3.52	3.92	3	1	1.213	0.293	0.878	0.293	0.878	0.293
TOT*	1537	3280	59.4	190.7	214.5	4.0	1.7	16.42	7.10	18.73	7.80	18.73	7.80

ESTIMATED FATALITIES DUE TO SPEED HUMP DELAYS, 50 YEARS WITHOUT SE DETOUR

7/3/2007

ZONE	HOME	POP	MILES	30MPH		# OF HUMPS		DEATH 25MPH		DEATH 30MPH	
				TIME	TIME	EXIST	REC	EXIST	REC	EXIST	REC
1	40	85	0.28	2.06	2.17	0	0	0.000	0.000	0.000	0.000
2	49	105	0.54	2.58	2.80	0	0	0.000	0.000	0.000	0.000
3	41	87	0.55	2.60	2.82	0	0	0.000	0.000	0.000	0.000
4	23	49	0.61	2.72	2.96	1	1	0.049	0.049	0.041	0.041
5	8	17	0.50	2.50	2.70	1	1	0.014	0.014	0.014	0.014
6	26	55	0.67	2.84	3.11	2	2	0.139	0.139	0.092	0.092
7	4	9	0.60	2.70	2.94	2	2	0.019	0.019	0.015	0.015
8	0	1	0.80	3.10	3.42	3	2	0.004	0.003	0.004	0.003
9	8	17	0.76	3.02	3.32	4	2	0.092	0.043	0.086	0.043
10	0	0	0.82	3.14	3.47	5	2	0.000	0.000	0.000	0.000
11	98	209	1.16	3.82	4.28	3	2	1.580	1.053	1.027	0.644
12	61	130	1.12	3.74	4.19	3	2	0.983	0.655	0.601	0.400
13	26	55	1.24	3.98	4.48	6	2	0.634	0.218	0.815	0.261
14	73	156	0.88	3.26	3.61	3	2	0.721	0.480	0.590	0.393
15	10	21	1.04	3.58	4.00	6	2	0.318	0.106	0.194	0.065
16	9	19	0.92	3.34	3.71	6	2	0.206	0.059	0.163	0.048
17	25	53	1.38	4.26	4.81	6	2	0.449	0.200	0.721	0.267
18	9	19	1.06	3.62	4.04	7	2	0.334	0.096	0.229	0.059
19	8	17	1.12	3.74	4.19	8	3	0.307	0.129	0.278	0.079
20	6	13	1.22	3.94	4.43	9	3	0.224	0.082	0.278	0.087
21	9	19	1.16	3.82	4.28	7	3	0.291	0.144	0.285	0.093
22	0	0	1.20	3.90	4.38	8	3	0.000	0.000	0.000	0.000
23	11	23	1.34	4.18	4.72	10	3	0.313	0.130	0.504	0.174
24	0	0	1.28	4.06	4.57	10	3	0.000	0.000	0.000	0.000
25	5	11	1.24	3.98	4.48	9	4	0.177	0.085	0.238	0.108
26	11	23	1.30	4.10	4.62	10	4	0.345	0.174	0.522	0.232
27	6	13	1.36	4.22	4.76	11	5	0.183	0.106	0.305	0.157
28	4	9	1.34	4.18	4.72	11	3	0.131	0.051	0.214	0.068
29	32	68	1.51	4.52	5.12	12	4	0.650	0.267	1.245	0.514
30	29	62	1.86	5.22	5.96	12	4	0.187	0.082	0.553	0.243
31	30	64	1.93	5.36	6.13	12	4	0.157	0.072	0.477	0.208
32	28	60	1.86	5.22	5.96	12	4	0.181	0.080	0.536	0.235
33	39	83	2.16	5.82	6.68	12	4	0.156	0.046	0.336	0.171
34	31	66	2.15	5.80	6.66	12	4	0.124	0.037	0.277	0.143
35	16	34	2.17	5.84	6.71	12	4	0.064	0.019	0.133	0.067
36	41	87	2.01	5.52	6.32	12	4	0.183	0.082	0.512	0.219
37	42	90	1.71	4.92	5.60	12	4	0.491	0.227	1.053	0.451
38	54	115	1.91	5.32	6.08	12	4	0.295	0.129	0.906	0.398
39	35	75	1.72	4.94	5.63	12	4	0.398	0.189	0.849	0.355
40	78	166	1.61	4.72	5.36	3	1	0.436	0.163	0.941	0.314
41	49	105	1.33	4.16	4.69	3	1	0.595	0.198	0.794	0.265
42	74	158	1.48	4.46	5.05	3	1	0.465	0.155	0.956	0.358
43	45	96	1.00	3.50	3.90	3	1	0.585	0.148	0.444	0.148
44	65	139	1.00	3.50	3.90	3	1	0.847	0.214	0.642	0.214
45	82	175	1.04	3.58	4.00	3	1	1.323	0.441	0.809	0.270
46	47	100	1.20	3.90	4.38	3	1	0.680	0.252	0.609	0.154
47	61	130	1.21	3.92	4.40	3	1	0.860	0.328	0.830	0.200
48	89	190	1.01	3.52	3.92	3	1	1.213	0.293	0.878	0.293
TOT*	1537	3280	59.4	190.7	214.5	5.3	2.0	17.40	7.46	21.00	8.56

FROM FS #12 ESTIMATED FATALITIES DUE TO SPEED HUMP DELAYS OVER 50 YEARS

7/19/2007

ZONE	HOME	POP	MILES	30MPH		25MPH		SPEED HUMP		DEATH		25MPH		DEATH		30MPH	
				TIME	TIME	EXIST	REC	EXIST	REC	EXIST	REC	EXIST	REC	EXIST	REC		
1	40	85	2.80	7.10	8.22	6	2	NA	NA	0.086	NA						
2	49	105	2.95	7.40	8.58	6	2	NA	NA	0.066	NA						
3	41	87	2.90	7.30	8.46	6	2	NA	NA	0.066	NA						
4	23	49	2.52	6.54	7.55	6	2	NA	NA	0.041	NA						
5	8	17	2.71	6.92	8.00	7	2	NA	NA	0.019	NA						
6	26	55	2.90	7.30	8.46	8	2	NA	NA	0.051	NA						
7	4	9	2.47	6.44	7.43	4	0	NA	NA	0.006	NA						
8	0	1	0.80	3.10	3.42	4	0	NA	NA	0.005	NA						
9	8	17	2.30	6.10	7.02	3	0	NA	NA	0.014	NA						
10	0	0	0.82	3.14	3.47	2	0	NA	NA	0.000	NA						
11	98	209	2.38	6.26	7.21	0	0	NA	NA	0.000	NA						
12	61	130	2.36	6.22	7.16	0	0	NA	NA	0.000	NA						
13	26	55	2.06	5.62	6.44	0	0	NA	NA	0.000	NA						
14	73	156	2.28	6.06	6.97	0	0	NA	NA	0.000	NA						
15	10	21	2.08	5.66	6.49	0	0	NA	NA	0.000	NA						
16	9	19	2.18	5.86	6.73	0	0	NA	NA	0.000	NA						
17	25	53	2.28	6.06	6.97	0	0	NA	NA	0.000	NA						
18	9	19	2.25	6.00	6.90	1	0	NA	NA	0.005	NA						
19	8	17	2.12	5.74	6.59	2	1	NA	NA	0.021	NA						
20	6	13	2.33	6.16	7.09	3	1	NA	NA	0.011	NA						
21	9	19	2.20	5.90	6.78	1	1	NA	NA	0.012	NA						
22	0	0	1.20	3.90	4.38	2	1	NA	NA	0.000	NA						
23	11	23	2.32	6.14	7.07	3	2	NA	NA	0.019	NA						
24	0	0	1.28	4.06	4.57	4	1	NA	NA	0.000	NA						
25	5	11	2.28	6.06	6.97	4	2	NA	NA	0.012	NA						
26	11	23	2.35	6.20	7.14	4	2	NA	NA	0.026	NA						
27	6	13	2.45	6.40	7.38	5	3	NA	NA	0.012	NA						
28	4	9	2.50	6.50	7.50	4	1	NA	NA	0.005	NA						
29	32	68	2.62	6.74	7.79	5	2	NA	NA	0.050	NA						
30	29	62	2.88	7.26	8.41	5	2	NA	NA	0.045	NA						
31	30	64	3.09	7.68	8.92	5	2	NA	NA	0.027	NA						
32	28	60	2.98	7.46	8.65	5	2	NA	NA	0.028	NA						
33	39	83	3.21	7.92	9.20	5	2	NA	NA	0.044	NA						
34	31	66	3.35	8.20	9.54	5	2	NA	NA	0.037	NA						
35	16	34	3.37	8.24	9.59	5	2	NA	NA	0.019	NA						
36	41	87	3.50	8.50	9.90	5	2	NA	NA	0.049	NA						
37	42	90	3.18	7.86	9.13	5	2	NA	NA	0.045	NA						
38	54	115	3.41	8.32	9.68	5	2	NA	NA	0.064	NA						
39	35	75	3.53	8.56	9.97	5	2	NA	NA	0.042	NA						
40	78	166	3.70	8.90	10.38	8	2	NA	NA	0.103	NA						
41	49	105	3.45	8.40	9.78	8	2	NA	NA	0.094	NA						
42	74	158	3.77	9.04	10.55	8	2	NA	NA	0.076	NA						
43	45	96	3.25	8.00	9.30	8	2	NA	NA	0.086	NA						
44	65	139	3.27	8.04	9.35	8	2	NA	NA	0.125	NA						
45	82	175	3.27	8.04	9.35	8	2	NA	NA	0.157	NA						
46	47	100	3.48	8.46	9.85	8	2	NA	NA	0.090	NA						
47	61	130	3.47	8.44	9.83	8	2	NA	NA	0.116	NA						
48	89	190	3.32	8.14	9.47	8	2	NA	NA	0.170	NA						
TOT*	1537	3280	128.2	328.3	379.6	5.2	1.6	NA	NA	1.94	NA						

City of Albuquerque

Dept. of Municipal Development
Traffic Engineering Division
PO Box 1293 Albuquerque, NM 87103



July 13, 2006

TO: Mike Riordan, Acting Deputy Director, DMD
FROM: Kevin Broderick, Traffic Engineer, DMD
SUBJECT: STATUS OF MARKINGS ON STAGECOACH IN FOUR HILLS

Stagecoach and Wagon Train Roads provide the primary access to the Four Hills Neighborhood in the southeast part of Albuquerque. The volume and speed of traffic on these streets has been a concern for the residents that live adjacent to the roads. Speed humps were installed on sections of Stagecoach and Wagon Train to address this concern. Data collected before and after the speed humps were installed indicated that there was an impact on drivers overall speed.

The results from that project were:

LOCATION		AVERAGE	85th
Stagecoach near Lamp Post	Before	32.5 MPH	37.8 MPH
	After	24.5 MPH	29.0 MPH
Stagecoach near Maverick	Before	32.8 MPH	38.6 MPH
	After	26.5 MPH	31.4 MPH
Wagon Train near Toro	Before	29.8 MPH	34.3 MPH
	After	24.4 MPH	29.0 MPH
Wagon Train near Brazos	Before	28.9 MPH	35.4 MPH
	After	25.9 MPH	30.7 MPH

While this project did improve drivers' compliance with the posted speed limit, the installation of the humps was not embraced by all residents in the Four Hills Neighborhood. Traffic Engineering has been working with City Councilor Don Harris in exploring options other than speed humps in reducing traffic's speed on a section of Stagecoach.

Stagecoach Road between Hideaway and Quimera has a 40 foot wide section, curb face to curb face. The road had been striped with a double yellow line down the center. As parking on this section of roadway is infrequent, this lane configuration gave the appearance of two wide driving lanes. These wide driving lanes may have been contributing to the motorist's impression that the allowable speed was higher than the posted 25 MPH. Speed studies in this reach of Stagecoach indicated that the average speed was approximately 25.8 MPH and the 85th speed to be approximately 30.7 MPH.

To evaluate the effect that the wide driving lanes had on the speed of traffic, Stagecoach Road between Hideaway and Quimera was restriped with a 2 foot wide painted yellow median, two 11 foot driving lanes and two 8 foot parking lanes with a solid white line separating the driving and parking lanes. Three sets of speed studies were to be completed in order to evaluate the effect this new striping pattern had on motorists' speeds; one before the restriping of the road, one immediately after, and a third approximately three months after the restriping was completed. The restriping and the first two speed studies have been completed.

The initial results are as follows:

LOCATION		AVERAGE	85th
		Stagecoach near Sagebrush	Before
	After	26.7 MPH	30.7 MPH
Stagecoach near Soplo	Before	24.7 MPH	31.1 MPH
	After	24.7 MPH	31.0 MPH

Initial results would indicate that the restriping of the road did not have an appreciable effect on the measured speed. A third speed study to be completed in August will show if there is a long term effect on the speed of traffic on Stagecoach.

Comments we have received to date regarding have been mostly positive with a number of residents indicating that they liked the markings and they thought that it was having a positive impact on slowing traffic down. We did receive one comment from a resident that he felt the project had no impact on drivers' speeds.

We will complete our third count by the end of August and a final report will be produced at that time.

TOTAL NUMBER OF CARDIAC & RELATED FATALITIES OVER 50 YEARS

	4 sec delay per hump Deaths	5 sec delay per hump Deaths	6 sec delay per hump Deaths
Total Incidences in 50 years = 344.4			
Without SE Detour Existing			
Total Number of Deaths No Humps	182.96	182.96	182.96
Total Number of Deaths With Humps	203.97	208.55	212.82
Hump Caused Deaths	21.01	25.59	29.86
With SE Detour Existing			
Total Number of Deaths No Humps	182.96	182.96	182.96
Total Number of Deaths With Humps	201.71	206.08	210.26
Hump Caused Deaths	18.75	23.12	27.29
FS#12 Existing			
Total Number of Deaths No Humps	329.39	329.39	329.39
Total Number of Deaths With Humps	331.35	331.76	332.14
Hump Caused Deaths	1.96	2.37	2.76
Without SE Detour Recommended			
Total Number of Deaths No Humps	182.96	182.96	182.96
Total Number of Deaths With Humps	191.53	193.52	195.60
Hump Caused Deaths	8.57	10.56	12.64
With SE Detour Recommended			
Total Number of Deaths No Humps	182.96	182.96	182.96
Total Number of Deaths With Humps	190.76	192.65	194.60
Hump Caused Deaths	7.80	9.69	11.64
FS#12 Recommended			
Total Number of Deaths No Humps	329.39	329.39	329.39
Total Number of Deaths With Humps	330.02	330.18	330.33
Hump Caused Deaths	0.64	0.79	0.95

Total Incidences in 50 years = 344.4

Note: 1 sigma includes 68% of the expected deaths,
2 sigma includes 95% of the expected deaths

	Deaths	+ - 1 sigma in deaths	+ - 2 sigma in deaths
Without SE Detour Existing			
Total Number of Deaths No Humps	182.96	8.38	16.42
Total Number of Deaths With Humps	203.97	8.02	15.73
Hump Caused Deaths	21.01	11.60	22.74
With SE Detour Existing			
Total Number of Deaths No Humps	182.96	8.38	16.42
Total Number of Deaths With Humps	201.71	8.13	15.94
Hump Caused Deaths	18.75	11.67	22.88
FS#12 Existing			
Total Number of Deaths No Humps	329.39	6.70	13.14
Total Number of Deaths With Humps	331.35	6.25	12.25
Hump Caused Deaths	1.96	9.17	17.97
Without SE Detour Recommended			
Total Number of Deaths No Humps	182.96	8.38	16.42
Total Number of Deaths With Humps	191.53	8.26	16.19
Hump Caused Deaths	8.57	11.76	23.06
With SE Detour Recommended			
Total Number of Deaths No Humps	182.96	8.38	16.42
Total Number of Deaths With Humps	190.76	8.30	16.26
Hump Caused Deaths	7.80	11.79	23.11
FS#12 Recommended			
Total Number of Deaths No Humps	329.39	6.70	13.14
Total Number of Deaths With Humps	330.02	6.56	12.86
Hump Caused Deaths	0.64	9.38	18.39