

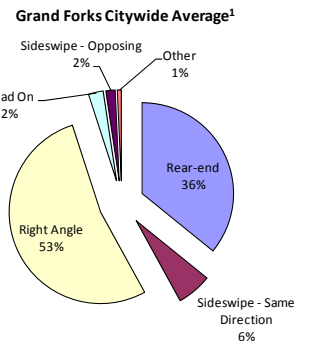
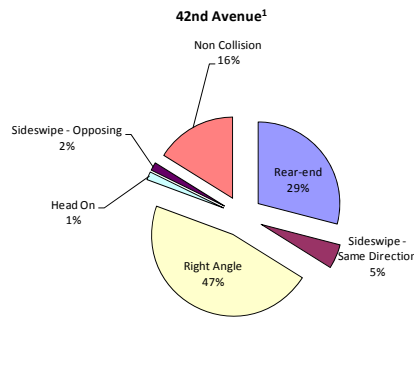
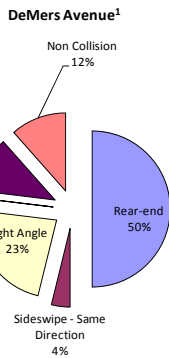
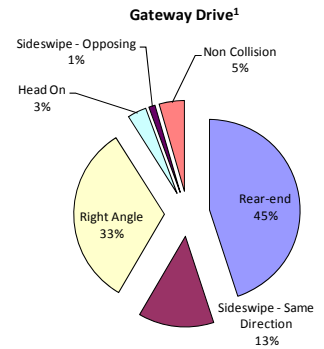
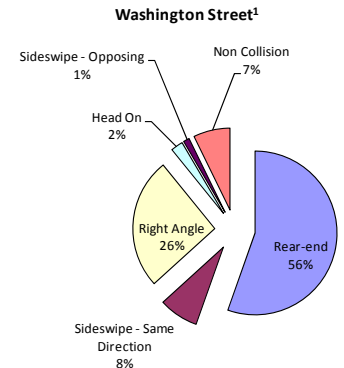
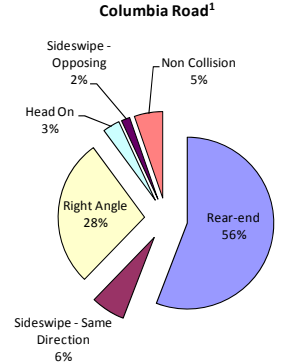
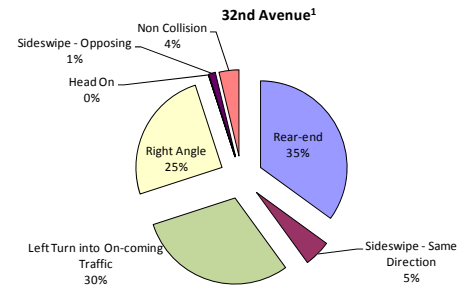
Crash History

The total intersection crashes (broken out by type) are illustrated below. In addition, the overall intersection crash rate (expressed in number of crashes per million entering vehicles) is provided. A typical average crash rate for a signalized intersection in an urban environment is between 0.8 and 1.0. Optimized traffic signal timing may often reduce rear-end and right angle type crashes.

Intersection	Rear-end	Sideswipe - Same Direction	Left Turn into On-coming Traffic	Right Angle	Head On	Sideswipe - Opposing	Non Collision	TOTAL	CRASH RATE
32nd Avenue at I 29 West Ramp	0	0	0	0	0	0	0	0	0.00
32nd Avenue at I 29 East Ramp	1	0	0	0	0	0	0	1	0.07
32nd Avenue at 38th Street	4	0	11	4	0	0	0	19	0.94
32nd Avenue at 34th Street	4	2	10	3	0	1	0	20	0.88
32nd Avenue at 31st Street	8	1	3	6	0	0	2	20	0.99
32nd Avenue at 24th Street	2	0	0	1	0	0	0	3	0.16
32nd Avenue at 20th Street	9	1	0	6	0	0	1	17	0.81
32nd Avenue at 17th Street	0	0	0	0	0	0	0	0	0.00
Columbia Rd @ 32nd Ave	24	3	0	10	0	0	3	40	1.14
Columbia Rd @ 28th Ave	3	0	0	4	2	1	0	10	0.44
Columbia Rd @ 24th Ave	7	0	0	8	1	1	1	18	0.58
Columbia Rd @ 17th Ave	25	3	0	4	1	0	0	33	1.08
Columbia Rd @ 13th Ave	10	3	0	7	0	1	1	22	0.79
Columbia Rd @ 11th Ave	12	0	0	2	0	0	0	14	0.47
Columbia Rd @ 2nd Ave	12	1	0	10	1	0	3	27	1.06
Columbia Rd @ University Ave	10	2	0	7	1	0	1	21	0.82
Columbia Rd @ 6th Ave	2	0	0	0	0	0	1	3	0.16
Washington St @ 32nd Ave	13	0	0	3	0	0	1	17	0.56
Washington St @ 28th Ave	4	0	0	3	0	1	0	8	0.31
Washington St @ 24th Ave	10	3	0	3	0	0	3	19	0.86
Washington St @ Campbell Dr	3	0	0	4	0	0	0	7	0.31
Washington St @ 17th Ave	15	1	0	8	1	0	0	25	1.08
Washington St @ 13th Ave	12	3	0	4	0	0	0	19	0.76
Washington St @ DeMers Ave	24	4	0	9	2	1	3	43	1.37
Washington St @ 2nd Ave	6	1	0	2	0	0	0	9	0.48
Washington St @ University Ave	5	1	0	6	1	0	2	15	0.56
Washington St @ 5th Ave	0	0	0	1	0	0	3	4	0.23
Gateway Dr @ 47th St	6	4	0	2	0	0	1	13	0.79
Gateway Dr @ I29 West Ramps	1	1	0	3	0	1	0	6	0.25
Gateway Dr @ I29 East Ramps	3	0	0	1	0	0	0	4	0.24
Gateway Dr @ 42nd St	2	1	0	4	1	0	1	9	0.50
Gateway Dr @ Stanford Rd	0	1	0	3	0	0	0	4	0.16
Gateway Dr @ Columbia Rd	1	0	0	2	1	0	1	5	0.22
Gateway Dr @ 20th St	6	1	0	2	1	0	0	10	0.52
Gateway Dr @ Washington St	12	2	0	5	0	0	1	20	0.71
Gateway Dr @ 5th St	8	2	0	5	0	0	0	15	0.69
Gateway Dr @ 3rd St	1	0	0	2	0	0	0	3	0.17
DeMers Ave @ 34th St	0	1	0	4	0	0	1	6	0.19
DeMers Ave @ Columbia Rd East Ramps	13	0	0	2	0	0	2	17	0.84
DeMers Ave @ 20th St	0	0	0	0	0	3	0	3	0.14
42nd St @ 17th Ave	2	0	0	1	0	1	5	9	0.81
42nd St @ 11th Ave	2	0	0	0	0	0	1	3	0.15
42nd St @ DeMers	7	2	0	15	0	0	2	26	1.03
42nd St @ University Ave	5	0	0	4	0	0	0	9	0.49
42nd St @ 6th Ave	0	0	0	5	0	0	1	6	0.59
32nd Avenue Total	28	4	24	20	0	1	3	80	0.56
Columbia Road Total	105	12	0	52	6	3	10	188	0.76
Washington Street Total	92	13	0	43	4	2	12	166	0.68
Gateway Drive Total	40	12	0	29	3	1	4	89	0.43
DeMers Avenue Total	13	1	0	6	0	3	3	26	0.36
42nd Street Total	16	2	0	25	0	1	9	53	0.62
Total - All Corridors	294	44	24	175	13	11	41	602	0.60

Source: City of Grand Forks, data dated years 2007-mid 2009

Crash Rate of 1.26 Before Re-timing in July 2008
 Crash Rate = 0.93 After Re-timing in July 2008



Source: City of Grand Forks, data dated year 2007-mid 2009.