

## I-77 Express Lane Work Zone Comparison to other High Profile Interstate Work Zones

<b>I 77 Workzone - MM 11 to North of NC 150 (26.06 miles)</b>			
Crashes per Year	Before (3 Yr)	During (1.75 Yr)	% Change
Total	1150	1785	55.22
Severe Injury	8	8	0.00
% of Total	0.7	0.4	
Minor Injury	263	351	33.46
% of Total	22.9	19.7	
PDO Injury	878	1426	62.41
% of Total	76.3	79.9	
Fixed Object	83	141	69.88
% of Total	7.2	7.9	
Rear End	684	1015	48.39
% of Total	59.5	56.9	
Sideswipe	218	429	96.79
% of Total	19.0	24.0	

- Total Crashes Increased by 55 Percent
- Severe Injury Crashes are Unchanged
  - Percent out of Total Crashes - 0.7 percent before to 0.3 percent during construction
- Congestion Related Crashes (Rear End and Sideswipe) Increased by 60 Percent
  - Percent out of Total Crashes – 78.4 percent before to 80.9 percent during construction

<b>I 40 Workzone - Fortify - Jones Franklin to MM 301 (7.55 miles)</b>			
Crashes per Year	Before (1.40 Yr)	During (0.85 Yr)	% Change
Total	465	922	98.28
Severe Injury	4	0	-100.00
% of Total	0.9	0.0	
Minor Injury	105	189	80.00
% of Total	22.6	20.5	
PDO Injury	356	733	105.90
% of Total	76.6	79.5	
Fixed Object	26	65	150.00
% of Total	5.6	7.0	
Rear End	180	429	138.33
% of Total	38.7	46.5	
Sideswipe	104	250	140.38
% of Total	22.4	27.1	

- Total Crashes Increased by 98 Percent
- Severe Injury Crashes Decreased by 100 Percent
  - Percent out of Total Crashes - 0.9 percent before to 0.0 percent during construction
- Congestion Related Crashes (Rear End and Sideswipe) Increased by 139 Percent
  - Percent out of Total Crashes – 61.1 percent before to 73.6 percent during construction

<b>I 40 Workzone - Wade to US 1 - MM 288 to MM 294 (6.00 miles)</b>			
Crashes per Year	Before (3 Yr)	During (1.66 Yr)	% Change
Total	197	310	57.36
Severe Injury	2	1	-50.00
% of Total	1.0	0.3	
Minor Injury	44	68	54.55
% of Total	22.3	21.9	
PDO Injury	151	241	59.60
% of Total	76.6	77.7	
Fixed Object	13	27	107.69
% of Total	6.6	8.7	
Rear End	97	171	76.29
% of Total	49.2	55.2	
Sideswipe	36	51	41.67
% of Total	18.3	16.5	

- Total Crashes Increased by 57 Percent
- Severe Injury Crashes Decreased by 50 Percent
  - Percent out of Total Crashes - 1.0 percent before to 0.3 percent during construction
- Congestion Related Crashes (Rear End and Sideswipe) Increased by 67 Percent
  - Percent out of Total Crashes – 67.5 percent before to 71.6 percent during construction

Data Summary when comparing the Current I-77 Express Lane Work Zone to other recent high profile Work Zones:

- Total crashes increased at all sites.
- Severe injury crashes remain unchanged or decreased at all sites.
- Congestion related crashes increased at all sites (rear end and sideswipe).
- The crash frequency changes in all sites can be accounted for by having a reduced cross sectional footprint in the work zone, therefore resulting in lower travel speeds, leading to a more congested section of roadway.
- The I-77 work zone maintained at rate of approximately 80 percent congestion related crashes out of the total crashes on the segment from the before to during construction periods.