5.6 Future Safety Performance

The proposed Southbound Off-Ramp modification is recommended to provide better progression along SR-46 and to better accommodate the southbound right traffic entering the westbound SR-46 traffic stream.

Crash data from the past five (5) years previously discussed suggests that the I-95 Southbound Ramps have a lower crash rate than the districtwide average. A crash modification factor (CMF) corresponding to the installation of a new traffic signal on a two-lane urban road countermeasure applicable to all crash types and severities was identified and applied to the existing crash rates and crash frequencies. CMF's #322, #1459, and #7848 were obtained from the *Crash Modification Factors Clearinghouse* online database maintained by the U.S. department of Transportation Federal highway Administration (FHWA). The factors were compared based on were compared based on crash type, crash severity, area type, prior conditions, and star quality rating. CMF #1459 has a low quality rating; thus, it was disregarded. CMF #7848 was chosen due to having a higher quality rating than #322. The output sheet is included in Appendix E. As indicated in Table 32, installation of a new traffic signal is anticipated to reduce the number of crashes by 1.638 crashes/year.

Table 32
Anticipated Crash Reductions
I-95 at SR-46 IOAR

Intersection			Average AADT	CMF[1]
SR-46 at I-95 Southbound Ramps	Number of Crashes	21	16,000	0.61
	Crash Frequency (crashes/year)[2]	4.200		
	Proposed Crash Frequency (crashes/year)[3]	2.562		
	Reduction in Crashes (crashes/year)[4]	1.638		

Notes:
1) CMF ID: 7848.
2) Crash frequency = Total Number of Crashes/Years.
3) Proposed Crash Frequency = Crash Frequency*CMF.
4) Reduction in Crashes = Crash Frequency – Proposed Crash Frequency.