



Memorandum

Date: April 22, 2014

To: MPO Policy Board Members

From: Bill Austin, AICP

Subject: Planning Level Estimation of Potential Crashes Associated with the Alternatives Under Consideration for the MIlleground

This memorandum is in response to questions that have arisen concerning the potential safety of the alternatives under consideration for the MIlleground. MPO Staff and the MPO’s Committee’s have noted that they anticipate that the proposed five lane cross-section would be more likely to have a higher incident rate than the four lane cross-section. Upon reviewing the information provided to date MPO Staff investigated methods for determining the difference between the two alternatives. MPO Staff found that the Federal Highway Administration has free software to estimate these impacts. The software follows the methodology recommended by the American Association of State Highway and Transportation Officials Highway Safety Manual. MPO Staff input the traffic volumes and configurations associated with the two alternatives under consideration and prepared an analysis of the potential for accidents between 2014 and 2020. The following table summarizes the results of this analysis.

Expected Highway Crash Rates and Frequencies

	Four-lane with Raised Median	Five-lane with TWLTL
Analysis Period	2014-2020	
Evaluation Length	0.7714 mile	
Average Future Road AADT (vpd)	22,141	
Expected Total Crashes	25.18	67.40
Expected Fatal and Injury Crashes	7.19	19.49
Property-Damage-Only Crashes	18.09	47.91
Expected Crash Rate(crashes/mi/yr)	4.6628	12.4827
Expected Travel Crash Rate (crashes/million veh-mi)	0.58	1.54

(Source: FHWA-Interactive Highway Design Model (IHSDDM) Analyst Jing Zhang)

Please note that this is a planning level analysis which does not reflect every detail of the geometric configuration of the proposed facility.