HANKARD ENVIRONMENTAL
ACOUSTICS AND VIBRATION CONSULTING

MEMORANDUM

TO:	**Dirk Draper – CH2M Hill**	*DATE:*	March 31, 2009
FROM:	Mike Hankard – HEI	*MEMO REF:*	
SUBJECT:	No Action Noise Levels	*PROJECT:*	US 24 West Corridor; I-25 to Manitou Springs
CC:	John Henry – HEI		

This memorandum describes the predicted noise levels under the No Action alternative for the US 24 West Corridor Project. Noise levels were predicted at each residence located within approximately 500 feet of US 24, and at most of the residences located between 500 and 1,000 feet from US 24. In addition, noise levels were predicted at the residences adjacent to cross streets and along Colorado Avenue where improvements are proposed.

Noise levels were predicted using the validated TNM (v2.5) model of the site. As documented in the Noise Technical Report for this project, noise levels were predicted for existing conditions (including the existing alignment and elevation of the roadways, existing structures, and existing Level of Service C traffic conditions), Recommended Alternative conditions (proposed alignment and elevation of the roadways, existing structures minus those that would need to be removed to make way for the proposed improvements, and 2035 Recommended Alternative Level of Service C traffic conditions). No Action noise levels were predicted by changing the traffic volumes in the existing conditions models to reflect No Action Level of Service C traffic conditions in the year 2035.

The predicted noise levels for these three conditions are shown in Table 1, below. The noise levels are shown as averages for each of the noise study regions shown in Figure 1, below. A few comments on the results are as follows:

- Average predicted noise levels under the No Action alternative range from 54 to 63 dBA
- The predicted increase in noise levels between existing and No Action conditions ranges from 1 to 3 dBA, and these increases are due to increased traffic volume
- No Action noise levels are less than those predicted for the Recommended Alternative in the eastern portion of the study area, because the Recommended Alternative carries more traffic at Level of Service C
- No Action noise levels are slightly (1 to 2 dBA) greater than those predicted for the Recommended Alternative in the western portion of the study area, because while the Recommended Alternative carries more traffic at Level of Service C it also has a lower speed limit and the line of sight to some residences is less direct

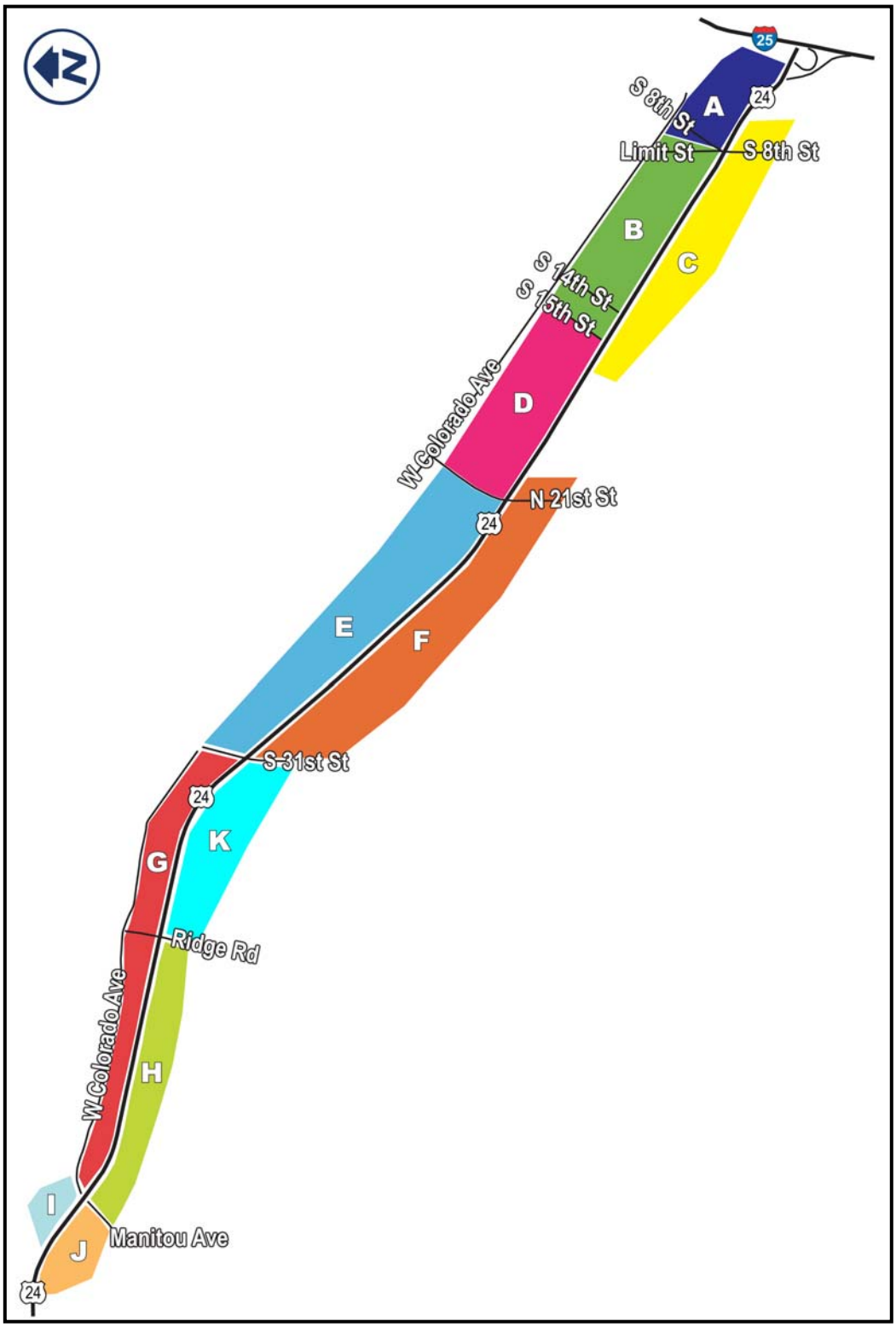

Figure 1: Breakdown of Study Area For Noise Analysis

Table 1: Average Existing, No Action and Recommended Alternative Noise Levels By Study Area

Area	Average Existing One-Hour Noise Level (dBA)	Average No Action One-Hour Noise Level (dBA)	Average Recommended Alternative One-Hour Noise Level (dBA)	Average Increase In One-Hour Noise Level From Existing to No Action (dBA)	Average Increase In One-Hour Noise Level From Existing to Recommended Alternative (dBA)
A	61	62	64	1	3
B	57	58	60	1	3
C	60	61	62	1	2
D	55	56	58	1	3
E	55	57	60	2	5
F	52	54	56	2	4
G	61	63	61	2	0
H	60	63	62	3	2
I	55	57	56	2	1
J	58	60	60	2	2